

Book "V".

Exhibit  
7-1-1888

EAST BOUNDARY OF  
Tp. 25 N. R 3 E

Book "A"

AND WEST  
NORTH and EAST BOUNDARIES

T 21 N., R. 9 E

Caudle and Caudle

4-671

BOOK 1446

FIELD NOTES

GENERAL LAND OFFICE.

W. 1/2 of West Bdy. T. 21 N. R. 9 E. is  
a retracement

No. 1446

1446

1A

BOOK 1446

4-674.

1446

Township 21 N. R. 9 E.

	31	32	33	34	35	36	
	23	24	26	28	30	32	
1 39	6	5	4	3	2	1	176
12 35	7	8	9	10	11	12	157
1 2 44	18	17	16	15	14	13	1318
24 42	19	20	21	22	23	24	1019
25 41	30	29	28	27	26	25	930
36 39	31	32	33	34	35	36	831

PRELIMINARY OATHS OF ASSISTANTS.

2A

We, Ellery Knowles

and J. H. Gore Jr.

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

Western boundaries of Twp. 21 N.  
R. 9 E. E. 5 N., R. 3 E.

BOOK 1446

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

Ellery Knowles, Chainman.  
J. H. Gore Jr., Chainman.  
\_\_\_\_\_, Chainman.  
\_\_\_\_\_, Chainman.

Subscribed and sworn to before me this 19<sup>th</sup> day

September, 1902

Carl Rausch

Notary Public.

U. S. Deputy Surveyor  
Marion Rausch  
U. S. Deputy Surveyor

CAL.]

We, Wilbur E. Owen  
and Philip Kirz of A. H. Marshall  
do solemnly swear that we will well and truly perform the duties  
of flagman and axmen, in the establishment of corners and other duties  
according to instructions given us, to the best of our skill and ability  
in the survey of the Eastern boundaries  
Tr. 2, N. R. 9 E. of 25 N. R. 3 E

BOOK 1446

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

Wilbur E. Owen, Flagman  
Philip Kirz, Axman  
A. H. Marshall, Axman  
\_\_\_\_\_, Axman

Subscribed and sworn to before me this 19<sup>th</sup>  
of September, 1902

Carl R. Gaud  
Notary Public  
Maxim Gaud  
U.S. Deputy Surveyor

2

BOOK 1446

4-674.

Township 25N R. 3E

	31	32	33	34	35	36
	76	77	79	81	83	85
1.73	6	5	4	3	2	1
12.71	7	8	9	10	11	12
13.67	18	17	16	15	14	13
24.67	19	20	21	22	23	24
25.66	30	29	28	27	26	25
6.63	31	32	33	34	35	36

986b5m9-01

at Bdy. I. 21 N. R. 9 E.

BOOK 1446

No. 1446

Survey commenced Sept. 20,  
 1902, and executed with a  
 W. & L. E. Gurley light <sup>mountable</sup>  
 transit (not numbered) with  
 solar attachment and Jones  
 Patent latitude arc. The horizon  
 tal limb is provided with two  
 double verniers placed opposite  
 to each other reading to  
 single minutes of arc; the  
 vernier of the declination arc  
 reads to 30" of arc; and the  
 verniers of the latitude arc  
 read to single minutes  
 and 10" of arc respectively  
 and the <sup>vernier of the</sup> vertical arc reads  
 to 30" of arc.

The instrument was examined  
 tested on the true meridian

...rily  
 ...itue and  
 ...urveyor  
 ...<sup>at</sup> 13' N.  
 ...<sup>7</sup> N. on  
 ...ark a  
 ...at  
 ...the  
 ...a tack  
 ...ly in the  
 ...oney  
 ...the  
 ...dy. of the  
 ...t of instrument  
 ...following  
 ...et off 1° 12'  
 ...N. on the  
 ...point in  
 ...terminated by

at Phoenix, found correct,  
and was approved by the  
surveyor general for Arizona  
Sept 19, 1902.

I examine the adjustments of  
the transit and find no  
level or collimation errors;  
then to test the solar appa-  
ratus, by comparing its indi-  
cations, resulting from solar  
observations made during  
a.m. & p.m. hours with a  
meridian determined by  
observations on Polaris, I  
proceed as follows.

At the <sup>standard</sup> corner of Tps. 21 N. R.  
9 and 10 E. act. Latitude 35°  
07' 08", longitude 111° 21' 51.4"  
West, which is a post 4' in.

E. Body; T. 21 N. R. 9 E.

BOOK 1446

2 ft. above ground firmly  
set marked and witnessed  
as described by the surveyor's decl.  
at 8<sup>h</sup> 30<sup>m</sup> a.m., but,  
general, I set off  $1^{\circ} 19' N.$   
on the decl. arc,  $35^{\circ} 07' N.$  on  
the lat. arc, and mark a  
point in the meridian  
thus determined by a tack  
on a plug set firmly in the  
ground 500 chs. N. of any  
station.

Note, - I begin the <sup>survey of the</sup> east body of the  
tp. and complete the test of instrument  
later in the day. See notes following  
description of this test.

At 5<sup>h</sup> 10<sup>m</sup> p.m., but, I set off  $1^{\circ} 12'$   
N. on the decl. arc,  $35^{\circ} 07' N.$  on the  
lat. arc; and mark a point in  
the meridian thus determined by



a tack on the plug already set 5.00 chs. N. of my station, which point falls 0.3115 W. of the point determined by the morning observation.

At 7<sup>h</sup> 32<sup>m</sup> p.m., lat., I observe Polaris at eastern elongation and mark a point in the line thus determined by a tack on a plug set firmly in the ground 5.00 chs. N. of my station.

Note, - For complete record of this days work see field notes following.  
Sept. 20, 1902.

Sept. 21, 1902. At 7<sup>h</sup> a.m. I lay off the azimuth of Polaris  $1^{\circ} 29' 13''$  to the west and mark the true meridian

E. Bdy. T. 21 N. R. 9 E.

BOOK 1446

thus determined by a tack on  
the plug already set 5.00 chs.  
N. of my station, which point is  
midway between the two points  
determined with the solar.  
The solar apparatus by a.m.  
and p.m. observations, defines  
positions for true meridians,  
respectively about 1' 8" East and  
0' 8" West of the meridian  
established by the Polaris  
observations; therefore I  
conclude the adjustments of  
the instrument are satisfactory.  
The magnetic bearing of the  
true meridian at 8<sup>h</sup> 5<sup>m</sup> a.m.  
is N. 14° 41' W.; the angle thus  
determined gives the mag.  
decl. 14° 41' E.

Sept. 21, 1902.

Sept. 20, 1902, From the T<sub>p</sub>.  
Cor. already described from  
North

bet. secs. 31 <sup>and</sup> 36.

Over nearly level land thro  
very dense cedar and piñon

40.00 Set a limestone 18 X 10 X 5 ins  
12 ins. in the ground for  
the sec. cor., marked  $\frac{1}{4}$  on W.  
face; from which  
A Piñon 12 ins. diam., bears N. 15° 25' E.

43 lks. dist., mkd.  $\frac{1}{4}$  S. 31 BT

A Piñon 13 ins. diam., bears S 76° 45' W. 20  
lks. dist., mkd.  $\frac{1}{4}$  S. 36 BT

44.00 Leave timber & enter  
burnt land covered with  
dense brush. hrs. E. & W.

80.00 Set a limestone 18 X 12 X 6 ins  
12 ins. in the ground for cor.

E. Bdy. T. 2 N. R. 9 E.

BOOK 1446

9

of secs. 25, 30, 31, ~~32~~ 36, marked  
with 1 notch on S. and 5 notches  
on N. edges; 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.  
Soil, stony & gravelly, 3rd rate.  
Timber, Cedar and pine 44.00 ch.  
Timber or dense undergrowth 80.00 ch.

North

bet. secs. 25 and 30.

Over gently rolling land, thro  
dense brush.

40.00 Set a limestone 18x10x6 ins.,  
12 ins. ins in the ground for 1/4  
sec. cor, mkd. 1/4 on W. face;  
and raise a mound of stone

E. Bdy. T. 21 N. R. 9 E.

BOOK

1446

80.00

2 ft. base,  $\frac{1}{2}$  ft. high w. of cor.  
 Pits impracticable.  
 Set a limestone  $18 \times 8 \times 6$  ins.  
 12 ins. in the ground for cor.  
 of secs. 19, 24, 25  $\frac{E}{S}$  30, mtd.  
 with 2 notches on S. and  
 4 notches on N. edges; dig  
 pits  $18 \times 18 \times 12$  ins. in each sec.  
 $5\frac{1}{2}$  ft. dist.; and pile a mound  
 of earth 4 ft. base, 2 ft. high  
 w. of cor.

Land, rolling.

Soil, gravelly 3<sup>rd</sup> rate.

No timber except a few  
 scattering burnt trees.

Dense undergrowth 80.00 ch.

North

bet. secs. 19<sup>and</sup> 24.

E. Bdy. T. 21 N. R. 9 E.

BOOK 1446

Over rolling land through  
dense brush, buck & chapparal.

- 31.00 Desc. into Canyon, brs. E. and W.
- 33.00 Bottom of Canyon course E. and  
foot desc. of 40 ft. Ascend.
- 35.00 Enter heavy cedar and piñon.
- 38.00 Top asc. 60 ft. bears E. and W.
- 40.00 Set a limestone 22 x 12 x 5 ins.  
15 ins. in the ground for  $\frac{1}{4}$  sec.  
cor. mkd.  $\frac{1}{4}$  on W. face, from which  
A Pinon 13 ins. diam. bears N. 78° 30' E. 16 lbs.  
dist. mkd.  $\frac{1}{4}$  S. 19 B.T.
- A Pinon 10 ins. diam., bears S. 79° W. 39 lbs.  
dist. mkd.  $\frac{1}{4}$  S. 24 B.T.
- 68.10 Road. bears E. and W.
- 69.25 Telegraph line bears E. & W.
- 71.45 S. F. P. R.R. bears N. 89° 06' E.  
and S. 89° 06' W.
- 72.00 Telegraph line bears E. & W. ascend

steep rocky slope to E. & W.  
8000 About 60 ft. above the R.R.

Set a malpais 20x10x10 ins.  
15 ins. in the ground for cor. of  
secs. 13, 18, 19 & 24. mkd.  
with 3 notches on S. and N.  
edges, from which

A Cedar 16 ins. diam., bears N. 37° 30' E.  
55 lbs. dist, mkd. T. 21 N. R. 10 E. S. 18 B.T.

A Pinon 8 ins. diam., bears S. 58° 30' E. 45  
lbs. dist, mkd. T. 21 N. R. 10 E. S. 19 B.T.

A Pinon 12 ins. diam., bears S. 36° 45' W. 58 lbs  
dist, mkd. T. 21 N. R. 9 E. S. 24 B.T.

A Cedar 12 ins. diam., bears N. 65° 15' W. 123 lbs.  
dist, mkd. T. 21 N. R. 9 E. S. 13 B.T.

Land Rolling and mountainous  
soil stony, 3<sup>rd</sup> & 4<sup>th</sup> Rte.

Timber, Heavy Cedar & Pinon.

Mountainous, heavily timbered

E. Bdy T. 21 N. R. 9 E.

BOOK 1446

land or dense undergrowth  
50.00 chs.

Sept. 21, at this cor. I set off  
1015' N. on the decl. acc, and  
at 11 h 53.6<sup>m</sup> a.m., I observed  
the sun on the meridian;  
the resulting lat. is  
35° 10'. which is nearly  
correct.

North

bet. secs. 13 and 18.

Over mountainous land

Covered with heavy cedar & piñon.

40.00 Set a malpais stone 18 X 7 X 6 ins. 12 ins.  
in the ground for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on  
W. face; from which

A Piñon 9 ins. diam., bears N. 39° 30' E. 50  
lbs. dist., marked  $\frac{1}{4}$  S 18 B.T.



E. Bdy. T. 21 N. R. 9 E.

A cedar 6 ins. diam., bears N. 69° W. 52  
lks. dist., mkd. 1/4 S 13 BT

8000 Set a malpais stone 18 X 10 X 8 ins.  
12 ins. in the ground for cor. of sec  
7, 12, 13, and 18, mkd. with 4  
notches on S. and 2 notches on N.  
edges; from which

A Cedar 6 ins. diam., bears N. 89° E. 34  
lks. dist., mkd. T 21 N R 9 E S 7 BT

A Cedar 7 ins. diam., bears S. 23° 30' E. 18  
lks. dist., mkd. T 21 N. R 9 E S 18 BT

A Cedar 5 ins. diam., bears S. 45° 30' W. 88 lks. dist.,  
mkd. T. 21 N. R 9 E S 13 BT.

A Cedar 7 ins. diam., bears N. 31° 30' W. 15 lks.  
dist., mkd. T. 21 N. R 9 E. S 12 BT.

Land, broken and mountainous  
Soil, stony 4<sup>th</sup> rate.

Timber, cedar and Piñon.

Mountainous and heavily timbered land 8000<sup>ch</sup>

Sept. 2, 1902.

E. Bdy. T. 21 N. R. 9 E.

BOOK 1446

Sept. 22: At 8<sup>h</sup> 05<sup>m</sup> a.m., h. m. t.  
Set off  $0^{\circ} 33' N.$  on the decl. arc;  
 $35^{\circ} 10' 40'' N.$  on the lat. arc;  
and determine a true meridian with the solar at 10 E.  
the cor. of secs 7, 2, 13 & 18 on the  
E. bdy. of the T<sub>1</sub>.

Thence I ran  
North

bet. secs. 7 & 12.

Over mountainous land through  
heavy cedar and piñon

40.00 Set a limestone  $15 \times 10 \times 6$  ins.  $10$  ins. W. Bdy.  
in the ground for  $\frac{1}{4}$  sec. cor. m. k. d. the cor.

$\frac{1}{4}$  on W. face; from which  
A Piñon 5 ins. diam, bears N.  $72^{\circ} 30' E.$  15  
lks. dist, m. k. d.  $\frac{1}{4}$  S 7 BT

A Piñon 9 ins. diam, bears S.  $38^{\circ} 15' W.$  27 lks. al.  
-dist, m. k. d.  $\frac{1}{4}$  S 12 BT

BOOK 1446 E. Bdy. T. 2 / N. R. 9 E.

42.00 Ascend ridge, bear MW, & S.E.

56.00 N. W. End ridge about 150 ft.  
above cor. bear S. E. Descend.

68.00 Ravine at foot descent 150 ft.  
course N.E. ascend

76.00 Top ascent 75 ft. bear N.E. & S.W.

80.00 Set a nail 16 X 12 X 7 ins. 10 ins.

in the ground for cor. of recs. 1, 6.

7, & 12, marked with 5 notches

on S. end 1 notch on N. edge, from which

A Pinon 6 ins. diam., bears N. 32° 40' E. 29 lks.

dist., mkd. T. 2 / N. R. 10 E. S. 6 BT

A Pinon 6 ins. diam., bears S. 65° 30' E. 77 lks.

dist., mkd. T. 2 / N. R. 10 E. S. 7 BT

A Cedar 8 ins. diam., bears S. 65° 30' W.

2 7 lks. dist. mkd. T. 2 / N. R. 9 E. S. 12 BT

A Pinon 7 ins. diam., bears N. 60° 30' W. 7

lks. dist., mkd. T. 2 / N. R. 9 E. S. 13 BT

Land, Mountainous

E. Bdy. T. 21 N. R. 9 E.

BOOK 1446 17

Soil, stony, 4<sup>th</sup> Rate.  
Timber cedar and piñon.  
Mountainous or heavily timbered  
land 8000 chs.

Note, - It being cloudy at noon  
no flat obs. could be taken.

North

bet secs. 1 and 6,

Over mountainous land through  
heavy cedar and piñon timber.

40.00 Set a malpais stone 15 x 10 x 6 ins.

10 ins. in the ground for  $\frac{1}{4}$  sec. cor.

mkd.  $\frac{1}{4}$  on W. face; from which

A Cedar 8 ins. diam., bears N. 68° 45' E. 24

lks, dist, mkd.  $\frac{1}{4}$  S 6 B.T.

A Piñon 8 ins. diam., bears S 55° W. 71 lks.

-dist, mkd.  $\frac{1}{4}$  S 1 B.T.

50.00 Set a malpais 18 x 10 x 7 ins

BOOK 1446

12 ins. in the ground for cor. to  
Tps. 21 & 22 N. Rs. 9 & 10 E,  
marked with six notches on  
N, S, E, & W. edges; from which

A Cedar 5 ins. diam, bears N. 20° E. 79  
lks. dist, mkd. T. 22 N. R. 10 E. S. 31 B. T.

A Cedar 7 ins. diam, bears S. 69° 30' E. 51  
lks. dist, mkd. T. 21 N. R. 10 E. S. 6 B. T.

A Cedar 7 ins. diam, bears S ~~86° 45' W.~~ <sup>87° 30'</sup> 48  
lks. dist, mkd. T. 21 N. R. 9 E. S. 1 B. T.

A Cedar 5 ins. diam, bears N. 16° 30' W. 39  
lks. dist, Mkd. T. 22 N. R. 9 E. S. 36 B. T.

Land mountainous,  
Soil, stony & cinders, & thote  
Timber, cedar & pinon.  
Mountainous or heavily timbered  
land so. sochs.

Sept. 22, 1902

N. Bdy. T. 21 N. R. 9 E.

BOOK

1446

19

Sept. 23, <sup>1902</sup> At 7<sup>h</sup> <sup>52<sup>m</sup></sup> AM, but., I set  
off  $0^{\circ}10\frac{1}{2}'$  N. on the decl. arc;  
 $35^{\circ}12\frac{1}{2}'$  N. on the lat. arc; and  
determine a true meridian  
with the solar at the cor.  
of Tps. 21722 N. Rs. 9410 E.  
previously described.

Thence I run  
West,

on a random line, along  
the N. Bdy. of T. 21 N., R. 9 E.,  
setting trip. ¼ sec. and sec. cor.  
at intervals of 40.00 chs.; and, at  
477.68 chs. intersect the W. Bdy.  
of the Tps. 8.78 chs. S. of the cor.  
of Tps. 21722 N. Rs. 849 E, which is  
a post 4 ins sq. in poor condition  
marked and witnessed as de-  
scribed by the survey or general.

N. Bdy. T. 21 N. R. 9 E.

BOOK 1446

This being 5.78 chs. greater than the allowable limits for closing the exterior of a township, I retrace the random North bdy. and the established E. Bdy. and find no error of alignment or measurement. I then retrace the W. bdy. of secs. 6 and 7, T. 21 N. R. 9 E. and establish the W. bdy. of secs. 31, 30, 19, and 18, <sup>T. 21 N. R. 9 E.</sup> and retrace the 5<sup>th</sup> Standard Parallel and S. Bdy. of T. 21 N. R. 9 E., to determine the correct bearings and lengths of the exterior Bds. of the T. These as now determined show a closing error well within limits a table of the latitudes, departures, and closing errors shown on page (46)

Sept. 23, 1902

N. Bdy. T. 21 N. R. 9 E.

21

BOOK 1446

Sept. 26, 1907 I reestablish the old cor. to Tps. 21 & 22 N. R. 8 and 9 E. and change it to refer to Tps. 21 & 22 N., R. 8 E. by setting

A Malpais stone 20 X 10 X 10 in. 15 in. in the ground for cor. to <sup>on W. bdy. T. 22 N. R. 9 E.</sup> Tps. 21 & 22 N. R. 8 E. marked with 6 notches on N and W. Edges, dig pits 30 X 24 X 12 in. on each line, N. and S. of stone 4 ft., and W. of stone 8 ft. dist., and raise a mound of earth 5 ft. base 2 1/2 ft. high W. of cor.

I set the closing cor. to Tps. 21 and 22 N. R. 9 E. as follows;

At the intersection of the random N. Bdy. T. 21 N. R. 9 E. with the W. bdy. which point is 8.78 Chs. S. of the



22

N. Bdy. T. 21 N. R. 9 E.

BOOK 1446

Cor. to tps. 21 & 22 N. R. 9 E. just  
reestablished, &

Set a malpais stone 20x10x8 ins.  
15 ins. in the ground for closing cor.  
to tps. 21 & 22 N. R. 9 E. marked  
C. C. on E. with 6 grooves on N.  
E. & S. faces; dig pits 30x24x12  
ins. crosswise on each line, N.  
and S. 4 ft., and E. of stone 8 ft.  
dist.; and raise a mound of  
earth 5 ft. base 2½ ft. high E.  
of cor.; from which

A Pine 31 ins. diam., bears N. 15° 32' E.

360 lks. dist., marked T. 21 N. R. 9 E. S. 31 B. T.

A Pine 36 ins. diam., bears S 48° 13' E. 340 lks.

dist., marked T. 21 N. R. 9 E. S. 6 B. T.

Sept. 26: at 8<sup>th</sup> 03<sup>m</sup> am, lunt, set  
off 1000' S. on the decl. arc. 35° 12' 20"  
N. on the lat. arc. and determine a

true meridian with the solar  
Thence run

East,

on a true line bet. sec. 6 E of 31.

Over rolling land through  
dense brush and scattering Pine.

5.60 Enter dense cedar and prairie timber.

37.68 Set a male fais 18 X 8 X 6 ins, 12  
ins. in the ground for  $\frac{1}{4}$  sec. cor,

marked  $\frac{1}{4}$  on N. face; from which  
A Pine 12 ins. diam. bears N. 50° E. 96 lks.  
dist, marked  $\frac{1}{4}$  S 31 BT

A Pine 14 ins. diam, bears S 20° W. 53 lks.  
dist., marked  $\frac{1}{4}$  S 6 BT

77.68 Set a male fais 18 X 10 X 7 ins, 2 ins. in  
the ground for cor. of sec. 5, 6, 9, & 32  
mkd. with 1 notch on W. and 5 notches  
on E. edges; from which

A Pine 37 ins. diam, bears N. 39° E. 300

N. Bdy, T. 21 N. R. 9 E.

BOOK

1446

lks. dist., marked T. 22 N. R. 9 E. S. 32 BT.

A Walnut 14 ins. diam., bears S.  $18^{\circ}5' E$ . 281 lks.

dist., mkd. T. 21 N R 9 E S 5 BT

A Cedar 6 ins. diam., bears S.  $26^{\circ}45' W$ . 130 lks.

dist., marked T 21 N R 9 E S 6 BT

A Cedar 5 ins. diam., bears N.  $58^{\circ}10' W$ . 260 lks.

dist., marked T 22 N R 9 E S 31 BT

Land, rolling.

Soil, sandy loam & stony 2<sup>nd</sup> &  
3<sup>rd</sup> rate.

Timber, pine, cedar &amp; prairie

dense brush or heavily timbered

land 77, 68 chs.

East,

or a true line bet. sec. 5 &amp; 32.

Over Rolling land through

scattering pine and heavy cedar &amp; prairie,

2.65 Road bears N.W. &amp; S.E.

N. Bdy. T. 21 N. R. 9 E.

25

No. 1446

BOOK 1446

- 15.00 Ascend over rough broken  
stone land, bears N.W. 75 E.
- 31.00 Ravine 1 ch. wide, 4 ft. deep, course S.
- 38.00 Top arcent of 70 ft. bears N. 98.
- 40.00 Set a Malpais 18 x 9 x 9 ins., 12 ins.  
in the ground for  $\frac{1}{4}$  sec; cor. mtd.  
 $\frac{1}{4}$  on N. face; from which  
A Pinon 12 ins. diam., bears N. 64° 40' W. 26  
lks. dist., mtd.  $\frac{1}{4}$  S 32 BT
- A Pinon 7 ins. diam., bears S. 80° 20' E. 98 lks.  
dist., mtd.  $\frac{1}{4}$  S. 5 BT
- 80.00 Set a Malpais 18 x 9 x 7 ins., 12 ins.  
in the ground for cor. of sec. 4, 5, 32,  
and 33. mtd. with 2 notches on W.  
and 4 notches on E. edges; from which  
A Cedar 5 ins. diam., bears N. 66° 25' E. 210  
lks. dist., mtd. T 22 N. R 9 E S 33 BT
- A Pinon 9 ins. diam., bears S. 75° E. 103 lks.  
dist., mtd. T. 21 N R 9 E S 4 BT

N. Bdy. T. 21 N. R. 9 E.

A Cedar 5 ins. diam., bears S.  $38^{\circ}50'W$ . 143

lks. dist., mkd. T 21 N R 9 E S 5 BT

A Cedar 9 ins. diam., bears N.  $58^{\circ}40'W$ . 104

lks. dist., mkd. T 22 N R 9 E S 32 BT

Land, rolling and mountainous.  
Soil, stony. 3<sup>rd</sup> and 4<sup>th</sup> Rate.  
Timber, pine, Cedar and fir.  
Mountainous, or heavily timbered  
land 80.00 chs.

East,

on a tree line bet. sec. 4  $\frac{E}{S}$  33.

Over mountainous broken land,  
through heavy cedar and pine.

4000 Set a malpais 15x10x6 ins. 10 ins.  
in the ground for  $\frac{1}{4}$  sec. cor. marked  
 $\frac{7}{8}$  on N. face, from which

A Pine 12 ins. diam., bears N.  $75^{\circ}E$ . 18 lks. dist.mkd.  $\frac{7}{8}$  S 33 BT

N. Bdy. T. 21 N. R. 9 E,

27

BOOK 1446

A Pine 18 ins. diam, bears S 40° E. 70  
lks. dist, mkd.  $\frac{1}{4}$  S. 4 BT

80.00 Set a malpais 16 X 14 X 7 ins, 10 ins  
in the ground for cor. of sec. 3, 4, 33, &  
34, marked with with 3 notches  
on E. & W edges; and raise a mound  
of stone 2 ft. base,  $1\frac{1}{2}$  ft. high W. of cor.  
pits impracticable; from which

A Cedar 12 ins. diam, bears N. 49° E. 45 lks.  
dist, marked T. 22 NR 9 E S 34 BT

A Pinon 8 ins. diam, bears S. 5° E. 250 lks.  
dist, mkd. T 21 N R 9 E S 3 BT

A Pinon 8 ins. diam, bears N. 34° 45' W.  
191 lks. dist, mkd. T 22 NR 9 E S 33 BT

No others within limits suitable for  
bearing trees.

Land, broken & mountainous.

Soil, stony, 4th Rate.

Timber, pine, cedar & pinon.

Timbered Mts. land 80.00 Chs.

N. Bdy. T. 21 N. R. 9 E.

✓ At this cor. I set off  $104\frac{1}{2}'$  S. on the decl. arc; and at  $11^{\text{h}} 51.5^{\text{m}}$  am. but observe the sun on the meridian, the resulting lat. is  $35^{\circ} 2' 20''$  which is correct.

East,

on a true line bet. sec. 3 & 34.

Over mountainous land through dense brush and cedar and pine timber.

- 22.00 Desc. bears N. 40°
- 25.00 Foot desc. 40 ft. bears N. 75° S. Road.
- 26.00 Drain, course N. E. Leave timber.
- 40.00 Set a lava stone  $15 \times 8 \times 6$  ins. 10 ins. in the ground for  $\frac{1}{4}$  sec. cor., mkd.  $\frac{7}{8}$  on N. face; dig pits  $18 \times 18 \times 12$  ins. E. & W. of stone 3 ft. dist; and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $\frac{1}{2}$  ft. high N. of cor.

A pine 13 ins. in diam bears  $S 51^{\circ} 30' W$ ; 244 lks dist marked  $\frac{1}{4}$ . S. S. B. T.

N. Bdy. T. 21 N. R. 9 E.

29

BOOK 1446

- 69.00 Road bears N. 75.
- 70.50 Walnut Canyon, 20 ft. deep, 40  
lks. wide, dry, course N. ascend.
- 76.50 Top ascent 50 ft. and enter  
cedar & pinon timber, Co. N. 75.
- 80.00 Set a malapais 15 X 10 X 6 ins., 10  
ins. in the ground for cor. of sec.  
2, 3, 34, and 35, marked with  
4 notches on W. and 2 notches on E edge,  
from which
- A Pinon 15 ins. diam., bears N. 31° 31' E. 52  
lks. dist., mkd. T 22 N R 9 E S 35 BT
- A Pinon 10 ins. diam., bears S. 10° 10' E 89  
lks. dist., mkd. T 21 N R 9 E S 2 BT
- A Pinon 12 ins. diam., bears S. 29° 20' W. 62  
lks. dist., mkd. T 21 N R 9 E S 3 BT
- A Pinon 10 ins. diam., bears N 50° W. 35 lks.  
dist., mkd. T 22 N R 9 E S 34 BT
- Land, Mountains and rolling



BOOK 1446

Soil, stony & clay loam 3<sup>rd</sup> & 4<sup>th</sup> etc.  
 Timber, Cedar & piñon.  
 Mountainous, heavily timbered  
 or brush land, 50.00 chs.

East,

on a true line bet. secs. 2 & 35.

Over mountainous land  
 through heavy cedar and piñon,  
 ascending from cor.

40.00 Set a lava stone 15x8x6 ins.  
 10 ins. in the ground for  $\frac{1}{4}$   
 sec. cor. marked  $\frac{1}{4}$  on N. face;  
 from which

A Pinon 10 ins. diam, bears N. 20° 30' E.

39 lbs. dist, mkd.  $\frac{1}{4}$  S. 35 BT

A Pinon 10 ins. diam, bears S. 85° W. 16

lbs. dist, mkd.  $\frac{1}{4}$  S. 2 BT

43.00 Top ascent of about 150 ft.  
 bears N. 75°, ascending toward S.

N. Bdy. T. 21 N. R. 9 E.

31

BOOK 1446

80.00 Set a lava stone 18x10x5 ins,  
12 ins. in the ground for cor. of sec.  
1, 2, 35, and 36, mks. with 5 notches  
ons. and 1 notch on E. edges; from  
which

A Cedar 8 ins. diam., bears N. 42° 30' E. 20  
lks. dist., mkd. T 22 N. R 9 E, S 36 RT

A Cedar 6 ins. diam., bears S. 29° 30' E. 75 lks.  
dist., marked T 21 N R 9 E S 1 BT

A Piñon 6 ins. diam., bears S 87° 32' W. 51 lks.  
dist., mkd. T 21 N R 9 E S 2 BT

A Piñon 8 ins. diam., bears N. 59° W. 100 lks.  
dist., mkd T. 22 N R 9 E S 35 BT

Land, mountainous.

Soil, stony & volcanic cinders  
4<sup>th</sup> Rate.

Timber, cedar & piñon.

Mts. land covered with heavy  
timber 8000 chs.

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N. Bdy T. 21 N. R. 9 E.

BOOK 1446

East,

on a true line bet. ACS 1<sup>E</sup> 36.Over mountainous land the  
heavy cedar and piñon.

40.00 Set a lava stone 15 x 9 x 6 ins.

10 ins. in the ground for  $\frac{1}{4}$  sec.cor. mkd.  $\frac{1}{4}$  on N. face, from which

A Cedar 6 ins. diam, bears S. 36° E. 38 lbs.

dist, mkd.  $\frac{1}{2}$  S 1 BT

A Pinon 9 ins. diam., bears N. 73° 30' E.

72 lbs. dist, mkd.  $\frac{1}{2}$  S 36 BT

80.00 The Cor. of Tps. 21 &amp; 22 N. Rs.

9 &amp; 10 E. previously described.

Land, rolling and mountainous

Soil stony and volcanic in char.

4<sup>th</sup> Rate.

Timber, cedar and piñon.

Mts or heavily timbered land

80.00 chs.

Sept. 26, 1902.

W. Bdy, T. 21 N. R. 9 E, 33

BOOK 1446

Sept. 24; at 7<sup>h</sup> am. I begin  
the retracement of the  
W. bdy. of sec. 6 & 7, T. 21 N.  
R. 9 E. at the old cor. to the  
21 & 22 N. R. 8 & 9 E. and run  
South,

bet. sec. 1 & 6,

Over rolling land through  
scattering pine and deciduous

15.00

Enter heavy Cedar & pine  
timber bears N.W. & S.E.

40.29

The old  $\frac{1}{4}$  sec. cor. bears W.  
35 lks. dist. <sup>true course S 0° 30' W</sup> which is a  
post 4 ins. sq,  $\frac{1}{2}$  ft. above  
ground firmly set, marked  
as described by the surveyor  
general, from which the old  
bearing tree @ Pinon & live. oaks, bears  
S. 47° 35' W. 185 lks. dist. marked S. & T.

BOOK 1446

Mark another tree as follows  
 A Pinon 8 ins. diam., diam., bears N. 46° 30' W.  
 97 lks. dist., marked 1/4 S I B.T.

Thence from cor. South-

40.31

The old cor. of secs. 1, 6, 7, & 12,  
 bears W. 10 lks. dist., <sup>True corner S 0° 09' W</sup> which  
 is a post rotted off, I recast  
 at the same point  
 high, as follows:

Set a Malapaix 18 X 10 X 5 ins.,  
 12 ins. in the ground for cor. of  
 secs. 1, 6, 7, & 12, marked with  
 1 notch on N. and 5 notches on S  
 edges; from which

A Cedar 12 ins. diam., bears S. 5° 16' W.  
 145 lks. dist., marked T 21 N R 8 E S 12 B.T.

A Cedar 10 ins. diam., bears N. 74° 09' W.  
 118 lks. dist., marked T 21 N R 8 E S 1 B.T.

Note - as it is very probable  
 that this cor. will not be in

position to be used for the  
cor. of secs. 6 & 7, I do not  
take bearing trees in sec. 6 & 7.

Land rolling.

Soil, sandy loam. & stony <sup>gravel</sup>

4<sup>th</sup> Rate.

Timber, Cedar and piñon,

Dense brush or heavy timber 80, 60 lbs.

South,

bet. secs. 7 & 12,

Over rolling land thro

(S. 0° N. E.)

dense cedar & piñon timber,

34.75

Ravine 30ft. deep, course N. E. <sup>end</sup>  
Road bears N. E. & S. W.

40.26

The old  $\frac{1}{4}$  sec. cor. bears E, 15  
<sup>True course 30° 15' E.</sup>

lbs. disty, which is a post rotted  
off. I reestablish at the same  
point as follows:

Set a limestone 18 X 10 X 6 ins.

BOOK

1446

12 ins. in the ground for  $\frac{1}{4}$   
 sec. cor., marked  $\frac{1}{4}$  on W. face;  
 from which the old bearing tree  
 A Pinon 5 ins. diam., bears N.  $73^{\circ}20'W$ ,  
 42 lks. dist., marked  $\frac{1}{4}$  S BT

I take a new bearing tree as follows:

A Pinon 5 ins. diam., bears S  $71^{\circ}10'E$ . 44  
 lks. dist., marked  $\frac{1}{4}$  S BT

$51^{\circ}05'W$

Hence from cor. ~~to~~ South

40.33 The old cor. of sec. 7, 12, 13  
 and 18 bears W. 6 lks. dist.,  
 true course S.  $6^{\circ}05'W$ .

which is a post 4 ins. sq, 3 ft.

above ground firmly set and  
 marked as described by the

survey or general; from which

A Pinon 6 ins. diam., bears N.  $65^{\circ}E$ . 104  
 lks. dist., mkd TXXI NR IXE SVII BT

A Cedar 8 ins. diam., bears S  $70^{\circ}W$ . 106 lks.  
 dist., mkd. TXXI NR VIII E SXIII BT

W. Bdy. T. 21 N. R. 9 E.

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BOOK 1446

A Pinon 8 in. diam., bearing  $89^{\circ}$  W. 106  
lks. dist., mch. TXXI NR VIII E SXII BT  
No other trees could be found  
marked as a bearing tree.  
Land rolling, and broken.  
Soil stony, 3rd & 4th Rate.  
Timber Cedar and pinon,  
Heavily timbered land 80.59

✓  
✓  
Sept. 24; at 9 h. a.m., h. m. t. I set  
off  $0^{\circ}15'$  S. on the decl. arc;  
 $35^{\circ}10'40''$  N. on the lat. arc; and  
determine a true meridian  
with the solar at the cor. last  
described.

Thence I run  
South,  
in a random line along W. bdy.  
of the tp. setting  $\frac{1}{4}$  sec.



St. Bdy, T. 21 N. R. 9 E

BOOK 1446

and surveys, at intervals  
of 4000 chs, and at  
326.70 chs. intersect the  
5<sup>th</sup> standard Parallel *N.*  
75 lks. W. of the S.C. of T.  
21 N. R. 8 & 9 E. which is  
a post 4 in sq.,  $\frac{1}{2}$  ft. high,  
firmly set and marked as  
described by the surveyor  
general; from which  
A Pine 24 in. diam., bears N. 61° 52' E,  
114 lks. dist., marked TXXI NR IX E SXXXVI B  
A Pine 36 in. diam., bears N. 22° W. 153 lks  
dist., mkd. TXXI NR VIII E. SXXXVI B  
The falling answers to a  
correction of 0° 10' of arc or  
2  $\frac{3}{4}$  lks. E. per mile, counting  
from the cont. sec. 7, 12, 13 & 18.  
Therefore I run

N. Bdy. T. 21 N. R. 9 E. 39

BOOK 1446

N. 0° 10' W.

on a true line bet. sec. 31 <sup>31</sup> & 36

Over mountainous land, thro heavy Pine, cedar & piñon.

- 3.00 Ravine 35 ft. below cor. course E.  
7.00 Ridge 100 ft. high bears E & W.  
12.00 Ravine 100 ft. deep course, E.  
30.00 Top ascent of 100 ft. bears E. & W.  
40.00 Set a limestone 8 X 10 X 6 ins.,  
12 ins. in the ground for  $\frac{1}{4}$  sec.  
cor. mkd.  $\frac{1}{4}$  on W. face; from which  
A Pin 2 ins. diam, bears S. 57° 25' E. 18 ft.  
dist, mkd.  $\frac{1}{4}$  S 31 BT  
A Pin 2 ins. diam bears S. 60° 40' W. 100 ft. dist,  
mkd.  $\frac{1}{4}$  S 36 BT  
40.50 South rim of Walnut Canyon bears  
E. & W. Desc.  
45.50 Bottom of canyon course E., foot descent  
of 400 ft. Ascend.

N. Bdy. T. 21 N. R. 9 E.

51.70 North rim of Walnut Canyon  
bears E. & W.

55.70 Ravine 20ft. deep. course S. E.

8000 Set a limestone 18 X 12 X 6 ins.  
12 ins. in the ground for  
cor. of sec 25, 30, 31 & 36,  
mkd. with 1 notch on S. end  
& 5 notches on N. edges, from which  
a Pinon 6 ins. diam., bears N. 70° 20' E. 68 lbs

dist, mkd. T. 21 N. R. 9 E. S. 30 BT

A Pinon 8 ins. diam., bears S. 52° 30' E. 57 lbs

dist, mkd. T. 21 N. R. 9 E. S. 31 BT

A Pinon 8 ins. diam., bears S. 44° 40' W. 49 lbs

dist, mkd. T. 21 N. R. 9 E. S. 36 BT

A Pinon 5 ins. diam., bears N. 54° 50' W. 69 lbs

dist, mkd. T. 21 N. R. 9 E. S. 25 BT

Land, Mountainous,

Soil, stony, 4<sup>th</sup> Rate.

Timber, Pine, Pinon, & cedar 80-90 ch.

Mts. heavily timbered land 80-90 ch.

H. Bdy. T. 21 N. R. 9 E. 41

BOOK 1446

Note, - It being cloudy at noon  
no lat. obs. could be taken.  
N.  $0^{\circ} 10' W$ .

on a true line bet. sec. 25<sup>9</sup> & 30.

Over mountainous land through  
heavy cedar & pine timber.

- 15.70 Descend bears, E, & W.
- 18.70 Ravine, 30ft. deep. course S. E.
- 21.70 Top accent of 30ft. bears <sup>200</sup> N. 85 E.
- 40.00 Set a limestone 15 X 10 X 6 ins.,  
10 ins. in the ground for  $\frac{1}{4}$  sec.  
cor. mkd.  $\frac{1}{4}$  on W. face; from which  
A Pinon 6 ins. diam, bears S. 65 $^{\circ}$  E.  
27 lks. dist., mkd.  $\frac{1}{4}$  S 30 BT
- A Pinon 9 ins. diam, bears N. 87 $^{\circ}$  20' W.  
50 lks. dist., mkd.  $\frac{1}{4}$  S 25 BT.
- 80.00 Set a limestone 18 X 6 X 4 ins.  
12 ins. in the ground for cor. of  
sec 19, 24, 25, & 30, mkd. with

W. Bdy. T. 21N. R. 9E.

2 notches on S. and 4 notches  
on N. edges, from which  
A Pinon 5 ins. diam., bears N. 85° 20' E.

47 lks. dist., mkt. T21NR9ES19BT

A Pinon 5 ins. diam., bears S 44° 45' E. 59

lks. dist., mkt. T21NR9ES30BT

A Pinon 6 ins. diam., bears S. 5° W. 21

lks. dist., mkt. T21NR8ES25BT

A Pinon 5 ins. diam., bears N. 65° W. 55

lks. dist., mkt. T21NR8ES24BT

Land, broken, mts. & rolling.

Soil, stony 3 & 4<sup>th</sup> Rate.

Timber pinon & cedar,

Heavy timber 80,000 chs.

N. 0° 10' W.

On a trail line bet. SECS. 19 & 24.

Over rolling land through  
heavy cedar & pinon,

H. Bdy. T. 21 N. R. 9 E 43

BOOK 1446

40.00 Set a limestone  $24 \times 16 \times 10$  ins.,  
15 ins. in the ground for  $\frac{1}{4}$  sec. cor.  
mkd.  $\frac{1}{4}$  on W. face; from which  
A Pinon 8 ins. diam., bears S. 85° E. 16 lbs.  
dist., mkd.  $\frac{1}{4}$  S 19 BT

A Pinon 16 ins. diam., bears S. 80° W. 28 lbs.  
dist., mkd.  $\frac{1}{4}$  S 24 BT

80.00 Set a limestone  $24 \times 14 \times 7$  ins.  
16 ins. in the ground for cor. of  
sec. 13, 18, 19, & 24, mkd. with 3  
notches on N. & S. edges; from which  
A Pinon, 10 ins. diam., bears N. 45° E. 53 lbs.  
dist., mkd. T21NR9E S 18 BT

A Pinon 10 ins. diam., bears S. 31° 0' E 57 lbs.  
dist., mkd. T21NR9E S 19 BT

A Pinon 6 ins. diam., bears S. 80° W. 30 lbs.  
dist., mkd. T21NR8E S 24 BT

A Pinon 16 ins. diam., bears N. 49° 30' W. 26 lbs.  
dist., mkd. T21NR8E S 13 BT

N. Bdy, T. 21 N. R. 9 E.

Land, rolling, & stony.  
 Soil, stony & clay loam 3<sup>d</sup> Rate  
 Timber, pinon & cedars  
 Heavy timber, 80,000 chs.

N. 0° 10' W.

On a true line bet. sec. 13  $\frac{E}{18}$

Over rolling land thro dense  
 cedar & pinon timber.

33.70 Low ridge bears E. &amp; W.

40.00 Set a limestone 16 X 10 X 6 ins.  
 10 ins. in the ground for  $\frac{1}{4}$  sec. cor.

mkd.  $\frac{1}{4}$  on W. face; from which

A Cedar 10 ins. diam, bears S. 55° E. 85  
 lbs. dist, mkd.  $\frac{1}{4}$  S 18 B.T.

A Pinon 12 ins. diam, bears S 56° 40' W. 150  
 lbs. dist, mkd.  $\frac{1}{4}$  S 13 B.T.

41.70 Foot of ridge bears E &amp; W.

45.35 Road, bears E & W. and  
 Drain course E. ascent.

W. Bdy. T. 21 N. R. 9 E,

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BOOK 1446

49.70 Telegraph line, bears N. 60° W.  
and S. 60° E.

50.41 Santa Fe Pacific R.R. bears  
N. 60° W. and S. 60° E.

50.95 Telegraph line bears N. 60° W. S. 60° E.

55.20 Top ascent of 30 ft. bears E. & W.

86.70 The cor. of sec. 7, 12, 13, & 18.

Land rolling, & broken.

Soil, stony, & clay loam 3 & 4<sup>th</sup>

Rate.

Timber, cedar, juniper & pine.

Land covered with heavy timber

86.70 chs.

Sept. 24, 1902.



Boundaries of  
Latitudes, Departures

BOOK 1446

Line Designated.	True bearing.	Distance. <small>Ch.</small>
E. bdy. T. 21 N. R. 9 E.	North	480.00
N. bdy. T. 21 N. R. 9 E.	West	477.68
W. bdy. T. 21 N. R. 9 E.	Southerly,	
	S. 0° 38' W.	31.51
	S. 0° 08' W.	40.31
	S. 0° 13' E.	40.26
	S. 0° 05' W.	40.33
	S. 0° 10' E.	326.70
5 <sup>th</sup> Standard Par. N. + S. bdy. T. 21 N. R. 9 E.	Easterly,	
	S. 89° 02' E.	39.18
	S. 89° 07' E.	39.91
	S. 89° 08' E.	39.93
	S. 89° 03' E.	39.88
	N. 89° 53' E.	40.15
	N. 89° 23' E.	39.94
	S. 89° 39' E.	40.17
	N. 89° 15' E.	40.13
	N. 89° 04' E.	39.85
	N. 89° 19' E.	39.73
	S. 89° 17' E.	39.69
	S. 89° 56' E.	39.63

Convergence of

Totals

Error in Latitude

I. 21 N. R. 9 E.  
and Closing Errors.

BOOK 1446

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Latitudes		Departures	
N. Obs.	S. Obs.	E. Obs.	W. Obs.
780.00.			477.68
	31.51		.35
	40.31		.10
	40.26	.15	
	40.33		.06
	326.70	.95	
	.45	39.18	
	.61	39.91	
	.60	39.93	
<del>.08</del>	.31	39.88	
.08		40.15	
.43		39.94	
	.25	40.17	
.53		40.13	
.14		39.85	
.47		39.73	
	.50	39.69	
	.05	39.63	
481.65	481.88	479.29	478.70
.23		Error in Dep.	.59

Carl Reardon  
U. S. Deputy Surveyor,

Martin Gaudle  
U. S. Deputy Surveyor

BOOK 1446

Nov. 5, 1902. At 8 A.M. l.m.t.  
I set off  $15^{\circ}29'$  S. on decl. arc,  
 $35^{\circ}28'$  on lat arc and with  
the solar determine a true  
meridian at the S.C. to Tps.  
25-N. R. 3 and 4 E. previously  
described.

Thence I run

North, bet. acs. 31 and 36.

Ascend S. slope of ridge  
through dense chico and  
buck brush.

4.00 Enter dense cedar and pinon  
bears E and W.

8.00 Top of ridge 100 ft high, bears  
E. and W. Thence over W. slope  
of ridge.

40.00 Set a sand stone  $24 \times 18 \times 6$   
ins in mound of stone

O. Bdy. T. 25 N. R. 3 E. 49

BOOK 1446

on a flat rock; marked  $\frac{1}{4}$  on W. face; from which;

A pinon, 8 ins. in diam., bears N.  $84^{\circ}42'$  W. 10 lks. dist., marked  $\frac{1}{4}$  S 36 B T.

A pine 16 ins. in diam., bears S.  $75^{\circ}18'$  E. 19 lks. dist.,

+ marked  $\frac{1}{4}$  S. ~~36~~<sup>31</sup> B T.

54.50

Drain, course N.W. Enter onto land; ascend steep S. slope of hill.

80.00

Point for sec. cor. falls on S. slope of hill 400 ft above drain.

Set a malpais stone 12 X 12 X 6 ins. 8 ins. in the ground for cor. to sec. 25-30 31 and 36 marked with 5 notches on N. and 1 notch on S. edges

BOOK

1446

from which;

A pinon, 10 ins. in diam.,  
bears N. 72 E. 117 lks. dist.,  
mkd. T 25 N R 4 E S 30 B T.

A cedar, 8 ins. in diam.,  
bears S. 44° 50' E. 112 lks. dist.,  
mkd. T 25 N R 4 E S 31 B T.

A pinon 5 ins. in diam.,  
bears S. 59° 58' W. 31 lks. dist.,  
mkd. T 25 N R 3 E S 36 B T.

A pinon 12 ins. in diam.,  
bears N. 80° 30' W. 60 lks. dist.,  
mkd. T 25 N R 3 E S 25 B T.

Land, rolling and mountainous  
Soil, stony and cinders 3rd  
and 4th rate.

Timber, cedar and pinon.  
Land covered with dense cedar, pinon  
or buck and chio brush 80 lbs

North, bet. secs. 25 and 30  
Asc. mountainous land through  
dense cedar and pinon.

13.00 Top of mountain 500 ft high  
100 ft. above sec. cor. thence  
over top of mountain.

14.00 Begin descent, steep N. slope  
through cinders and lava rock

33.90 Drain. course N.W. foot of 500  
ft. descent. ascend.

40.00 Set a malpais stone 20 X 14 X 12  
ins. 15 ins. in the ground and  
mound of stone for  $\frac{1}{2}$  sec cor.  
mkd.  $\frac{1}{4}$  on W. face; from which  
A pinon, 10 ins. in diam.,  
bears N. 42° E. 17 lks. dist.,  
mkd.  $\frac{1}{4}$  530137.

A pinon 12 ins. in diam.,  
bears N. 80° 30' W. 60 lks. dist.,

E. Bdy. of T. 25 N. R. 3 E.

BOOK 1446

mkd  $\$S$  25 B T.

At this cor., Nov. 5. at 11<sup>h</sup> 49' 40"  
 A.M. I run t. I st off  $15^{\circ} 33' 30'' S.$   
 on the decl. arc and observe the  
 sun on the meridian, the  
 resulting latitude  $35^{\circ} 29' N$  which  
 is the latitude nearby.

41.35 Top of 75 ft. ascent. bears NW. and  
 S.E. Descend N.E. slope.

50.00 Flat <sup>course N.W.</sup> ~~down~~ foot of 40 ft descents  
 Thence over nearly level land  
 through malpais boulders.

80.00 Set a malpais stone  $16 \times 12 \times 8$   
 ins <sup>10</sup> ins. in the ground  
 for cor. of secs. 19, 24, 25 and  
 30. mkd. with 4 notches  
 on N. and 2 notches on S.  
 edges; from which  
 A pinon, 8 ins in diam.,

E. Bdy. of T. 25 N. R. 3 E.

53

BOOK 1446

bears ~~N 83° 35' E~~ 64 lks dist.,  
mkd T 25 N R 4 E S 19 B T.

A pinon, 8 ins. in diam.,  
bears S. 41° 12' E. 46 lks. dist.,  
mkd. T 25 R 4 E S 30 B T.

A pinon, 12 ins. in diam.,  
bears S. 60° W. 9 lks. dist.;  
mkd T 25 N R 3 E S 25 B T.

A pinon, 4 ins. in diam.,  
bears N. 49° 15' W. 66 lks dist.  
mkd. T 25 N R <sup>3 E</sup> ~~4 E~~ S 24 B T.

Land, mountainous.

Soil, stony and cinders; 3rd  
and 4th rate.

Timber, so cho dense cedars  
and pinon.



North, bet. secs. 19 and 24

Over rolling land through  
dense cedar and pinon.

40.00

Set a malpais stone 12x6x6  
ins. 8 ins. in the ground for  
 $\frac{1}{4}$  sec. cor; mkd.  $\frac{1}{4}$  on W.  
face; from which

A pinon, 6 ins. in diam.,  
bears N.  $88^{\circ}10'E$ . 110 lks. dist.,  
mkd 45 19 B T!

A cedar, 10 ins. in diam.,  
bears S.  $47^{\circ}35'W$ . 76 lks dist.,  
mkd  $\frac{1}{4}$  5 24 B T!

80.00

Set a malpais stone 20x

14x8 ins. 15 ins. in the  
ground for cor. of secs. 13, 18, 19  
and 24. mkd with 3 notches  
on N. and S. edges; from which

A cedar, 12 ins. in diam.,

©. Body of T. 25 N. R 3 E

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BOOK 1446

bears N.  $45^{\circ} 45' E$ . 10 lks. dist.,  
mkd. T 25 N R 4 E S 18 B T.

A pinon, 5 ins. in diam.,  
bears S.  $70^{\circ} 48' E$ . 37 lks. dist.,  
mkd. T 25 N R 4 E S 19 B T.

A pinon, 5 ins. in diam.,  
bears S.  $68^{\circ} 30' W$ . 43 lks. dist.,  
mkd. T 25 N R 3 E S 24 B T.

A cedar, 12 ins. in diam.,  
bears N.  $72^{\circ} W$ . 62 lks. dist.,  
mkd. T 25 N R 3 E S 13 B T.

Land, rolling

Soil, stony 3rd and 4th rate.

Timber, dense cedar and  
pinon, 80 chs.

Nov. 5 1902.

Nov. 6, 1902

North, bet. secs. 13 and 18

Over rolling land through dense

cedar and pinon.

40.00

Set a malpais stone  $14 \times 10 \times 10$   
ins. 10 ins. in the ground  
for  $\frac{1}{4}$  sec. cor. mkd  $\frac{1}{4}$  on W. face  
from which

A pinon, 12 ins. in diam.  
bears N.  $69^{\circ} 20' E$ . 118 lks. dist.,  
mkd.  $\frac{1}{4} S 18 B. T.$

A pinon, 8 ins. in diam.  
bears S.  $74^{\circ} 30' W$ . 78 lks. dist.,  
mkd.  $\frac{1}{4} S 13 B. T.$

80.00

Set a malpais stone  $20 \times 12 \times 6$   
ins. 15 ins. in the ground for  
cor. of secs. 7, 12, 13 and 18  
mkd with 2 notches on N. and  
4 notches on S. edges;  
from which

A pinon, 6 ins. in diam.,  
bears N.  $34^{\circ} 37' E$ . 49 lks. dist.,

E. bdy. of T. 25 N. R. 3 E

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BOOK 1446

mkd. T 25 N R 4 E S 7 B T.

A pinon, 18 ins. in diam.,  
bears S. 55° E. 40 lks. dist.,

mkd T 25 N R <sup>4 E</sup> ~~3 E~~ S 18 B T.

A cedar 10 ins. in diam.,  
bears S. 74° 45' W. 70 lks. dist;

mkd. T 25 N R <sup>S. 13,</sup> 3 E S 12 B T.

A pinon <sup>6 ins. in diam. bears N 34° 49' W.</sup>  
6 7 lks. dist.  
Land, rolling. mkd. T 25 N R 3 E S. 12 B. T.

Soil stony; 3rd and 4th rate.

Timber, dense cedar and  
pinon 80 chs.

Nov. 6 1902. At 10 A.M. l.m.t.

I set off 15° 50' S. on decl arc,  
35° 31' 30" N. on lat. arc and  
with the solar determine a  
true meridian.

Thence I run.

North, bet. secs. 7 and 12

BOOK

- Over rolling land through dense cedar and pinon.
- 15.00 Enters scattering cedar and pinon and dense chico and buck brush.
- 40.00 Set a malpais stone 12x6x6 ins. 8 ins. in the ground, for 1/4 sec. cor. mkd. 4 on W. face; from which
- A pinon 14 ins. in diam., bears N. 80° 30' E. 118 lks. dist., mkd. 4 S 7 B T.
- A pinon, 14 ins. in diam., bears N. 79° 50' W. 261 lks. dist., mkd. 4 S 12 B T.
- 54.00 Enters dense cedar and pinon
- 60.00 Descend N. slope into canyon.
- 66.00 Bottom of canyon 75 ft. deep course N. W. Thence over bottom.
- 74.00 Asc. steep S. E. slope.

S. Bdy. of T. 25 N. R. 3 E

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BOOK 1446

75.50

Top of 80 ft ascent. bears  
N.E. and S.W.

80.00

Set a malpais stone 14x12x8  
ins. 10 ins. in the ground.

for. cor. of secs. 1, 6, 7 and 12.

x mtd. with 1 notch on <sup>N.</sup> and  
5 notches on S. edges, from which

A pinon, 10 ins. in diam.  
bears N.  $17^{\circ}30'E$ . 112 lks. dist.,  
mtd. T 25 N R 4 E S. 6 B T.

A pinon, 8 ins. in diam.,  
bears S.  $74^{\circ}30'E$ . 31 lks. dist.,  
mtd. T 25 N R 4 E S 7 B T.

A pinon, 10 ins. in diam.,  
bears S.  $32^{\circ}8'W$ . 64 lks. dist.,  
mtd. T 25 N R 3 E S 12 B T.

A pinon, 10 ins. in diam.,  
bears N.  $83^{\circ}W$ . 81 lks. dist.,  
mtd. T 25 N R 3 E S 1 B T.

BOOK 1446

Land, rolling and broken.

Soil, stony and sandy; 3 rd  
and 4th rate.

Timber, dense, cedar, pinoak,  
or buck and chiro bush 80 chs.

Nov. 6 at this cor. at 11<sup>h</sup> 43' 43"

A.M. L.M.T. I set off 15° 52'

S. on decl arc and observe the  
sun on the meridian. The

resulting latitude is 35° 32' N  
which is the latitude nearly.

For authority of Red Ink corrections  
see deputy's letters of Oct-1<sup>st</sup>, 19<sup>th</sup> &  
30<sup>th</sup> 1903