General Land Office • Original Field Notes

Book Number

750

The images in this file are photographs of the notes of the original surveys of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The original surveys in Nebraska began in the mid 1850's and were completed in the mid 1880's. The Nebraska office of the Surveyor General was closed June 30, 1886.

No. 1.

a

FIELD NOTES
of the
Exterior Boundary Line of the
SIOUX INDIAN RESERVE
and the
Exterior Township Line
and
Subdivisional Lines
of
Townships 34 and 35 N. of Ranges 44 and 45 W.
within the
Boundaries of said Reserve.

Also the
PINE RIDGE INDIAN RESERVE
being all of
Section 24, T. 35 N. R. 45 W.
within the
Sioux Indian Reserve.

Survey by
George W. Bates, U. S. Deputy Surveyor.
1904.

b

GENERAL INDEX.

	page.
Book B. Resurvey of Boundary lines.---	1
" A. Resurvey of West Boundary of T's 34 & 35 N.R. 44W.---------	65
" C. Survey of North Boundaries of T.34 N. R'S. 44 & 45, within reserve.----------	93
" E. Subdivision lines of T. 34 N. of R. 44 W. within reserve.---	137
" D. Subdivision lines of T. 35 N. of R. 44 W. within reserve.---	193
" G. Subdivision lines of T.34 N. of R. 45 W. within reserve.---	253
" F. Subdivision lines of T.35 N. of R. 45 W. within reserve.---	301
Pine Ridge Indian Reserve.	
Being all of Section 24, T. 35 N. R. 45 W.	
See survey in Book F----------	312
For description of Marking of Corner Posts.	
See Book F----------	345
East Boundary, Book A.---------	84

ans. C.L.W. np. B & S.

Book "B". No 1 Ex. RH 1 $925.85

FIELD NOTES

OF THE ~~SURVEY OF~~

Resurvey of the boundaries of that portion of the Sioux Indian reservation lying in parts of Tps.34 and 35 N.,Rs.44 and 45,west

of the Sixth Principal Meridian,

IN THE STATE OF ~~SOUTH DAKOTA.~~ Nebraska.

As surveyed by George W. Bates,
United States Deputy Surveyor.

Under his contract No. 158.

Dated April 30,1904. , ~~190~~

Survey commenced June 21,1904. , ~~190~~

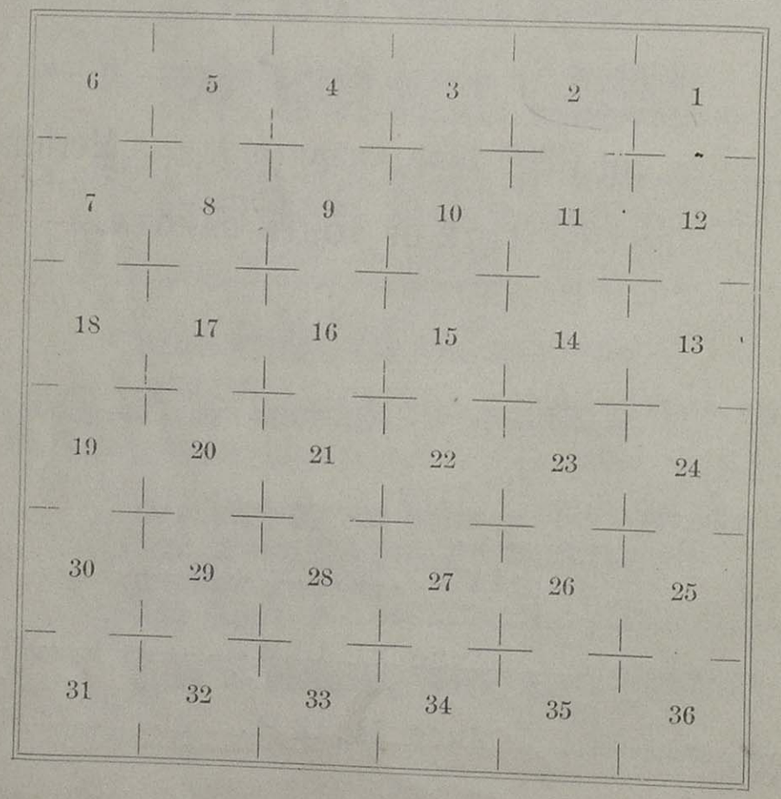
Survey completed June 24,1904. , ~~190~~

2E.

NAMES AND DUTIES OF ASSISTANTS.

James W. Dawson, Chainman.
Charles H. Townsend, Chainman.
Carlos G. Bates, Moundman.
James L. Wilson, Flagman.

INDEX DIAGRAM. Tp. ..... R. .....



3.

PRELIMINARY OATHS OF ASSISTANTS.

~~We, ... do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground and plumb the tally pins either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the~~ For preliminary oaths of assistants covering the field notes of the resurvey of boundaries of Sioux Indian reservation lying in parts of Ts.34 and 35 N., Rs.44 and 45 W., see those with notes of resurveys of W.bdry of Ts.34 and 35 N., R.44 W., book "A" of surveys executed under this same contract.

~~..... *Chainman.*~~
..... *Chainman.*
..... *Chainman.*
..... *Chainman.*

Subscribed and sworn to before me this ..... day of ....., 190...

.....

.....

PRELIMINARY OATHS OF ASSISTANTS.

We, ...

.....

.....

do solemnly swear that we will well and truly perform the duties o
moundmen and axmen in the establishment of corners and other dutie
according to instructions given us, to the best of our skill and abilit

in the survey of the .....

.....

....., *Moundma*

....., *Moundma*

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this ..... day of ....., 190..

.....

.....

I, ..., do solemn
swear that I will well and truly perform the duties of flagman, accor
ing to instructions given me, to the best of my skill and ability, in th

survey of the .....

.....

....., *Flagman.*

Subscribed and sworn to before me this ..... day of ....., 190..

.....

.....

2929b150-2-02

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

Survey commenced June 21, 1904 and executed with a Young and Sons light mountain transit, No. 5705, with a Smiths solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the meridian at Huron, found correct, and was approved by the surveyor general for South Dakota, June 10, 1904.

I examined the adjustments of the transit, corrected the level and collimation errors, and tested the solar apparatus by p. m. and a. m. observations on a meridian established from observations on Polaris; and found all adjustments satisfactory, on this day; at a point near the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., as recorded in Book A of surveys executed under

this contract.

North Boundary of Reservation

The old 1 mile post, which is a stump of a cedar post, 2 lks. N. of the interstate bdy. line, I destroy, and restore the cor., on the interstate bdy. as follows:

Set an ash post, 3 ft. long, 6 ins. sq., with marked stone, 24 ins. in the ground for the 1 mile cor., marked
1 M on W.,
U.S 1 R on S., and
SD on N face: dig pits 36x36x12 ins., N. and S. of cor, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.

From this cor. the old cor. bears N., 2 lks. dist. I destroy all traces of the old cor. I retrace along the interstate boundary as follows.

From the 1 mile cor., just restored I run

S. 89°55' E., and other courses thereof, along the interstate bdy., and retracing the North bdy. of the

Pine Ridge Indian Reservation in Nebraska; I find no trace of the 2, 3, and 4 mile cors.; at 4 miles 2.04 chs. I fall 4 lks. S. of the 5 mile cor. Therefore, to restore the missing cors.;

From the 1 mile cor., this day restored, I run

S 89°55' E, retracing the interstate boundary and along the N. bdy. of the Pine Ridge Indian Reservation in Nebraska.

Over gently rolling land.

0.40 Wagon road, from Rushville Nebr. & Pine Ridge So. Dak, bears N. and S.

15.00 Drain, 60 lks. wide, 4 ft. deep, course NW.

28.05 The 147½ mile monument on interstate bdy. W. of the initial point; which is a quartzite stone 10 ins. sq., 3½ ft. above ground, marked S.D. on N., N. on S., and 147½ M. on E. face.

66.50 Shallow drain, course N.

67.74 The 147 mile monument on interstate bdy. hereafter described. Thence N. 89°58' E., continuing measurements.

80.51 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for the 2 mile cor. on Reservation bdy.;

marked
US 1R on S.,
2 M on W, and
SD on N. face: dig pits, 36×36×12 ins, N. and S. of cor. 4 ft. dist., and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.
I again make diligent search in this vicinity for the old cor. but can find no trace of the cor.
Land, gently rolling.
Soil, sandy clay loam; 2" rate.

N. 89°58' E.,
on the 2nd mile.
Over gently rolling land.
0.56 From this point, a mound of earth with pits E., W. and N., presumably the closing cor. of secs. 19 and 20, South Dakota, bears S., 9 lks. dist.
14.70 Shallow drain, course N W.
27.30 The 146½ mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3½ ft. above ground, marked S.D. on N., N. on

S., and 146½ M. on E. face.
67.41 The 146 mile monument on interstate bdy., hereafter described. Thence N. 89°54½ E.,
Chainage continuous.
80.51 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground for 3 mile cor., marked
3 M on W.,
SD on N. and
US 1R on S. face; dig pits 36×36×12 ins, N. and S. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.
I again make diligent search in this vicinity, but can find no trace of the old cor, a cedar post.
Land, gently rolling.
Soil, sandy clay loam; 2" rate.

June 21: at this 3 mile cor., I set off 23° 27' N. on the decl. arc; and, at 0h 1.5m p.m., l.m.t., observed the sun on the meridian: the resulting lat. is 43° 0' which is about the proper lat.

N. 89° 54½ E.,
on the 3rd mile.
Over rolling hilly land, bears NE., and SW.

0.72 From this point, a stump of an oak post, with glass deposit, mound of earth and pits E., W., and S. of post, presumably the closing cor. of secs. 20 and 21, T. 35 N., R. 44 W., South Dakota bears N., 4 lks. dist.

26.77 The 145½ mile monument on intestate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3½ ft. above ground, marked S. D. on N., N. on S. and 145½ M. on E. face.

33.70 Drain, 30 lks. wide, 2 ft. deep, course NW.

66.63 The 145 mile monument on interstate bdy., hereafter described.

Thence 2 mm

S. 89° 50" E.,
chainage continuous.

70.50 Bottom of ravine, 60 lks. wide, course N.; leave hilly land; thence, over mountainous land, bears N. and S.; asc. 100 ft to

80.51 Set a sandstone 30 x 14 x 6 ins. 22 ins. in the ground for 4th mile cor., marked

4M on W.,
SD on N., and
USIR on S. face: dig pits, 36 x 36 x 12 ins. N. and S. of stone, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.

I again make diligent search in this vicinity, but can find no trace of the old cor., a cedar post.

Land, hilly and mountainous.

Soil, sandy clay loam; 2" rate.

Mountainous land, 10.01 chs.

S. 89° 50' E.,
on the 4th mile.
Over mountainous land, asc. 90 ft.

0.61 From this point, a mound of earth, with pits, and deposit of glass, presumably the closing cor. of secs. 21 and 22, T. 35 N., R. 44 W., South Dakota, bears S., 11 lks. dist.

15.50 Top of ridge, bears N. and S.; disc. 150 ft.

26.05 The 144½ mile monument on intestate bdy., W. of the initial point, which is a quartzite stone, 10 ins. sq., 3½ ft.

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

above ground, marked S.D. on N., N. on S., and 144½ M. on E. face.

40.50 Bottom of ravine, 30 lks. wide, course N.E.; leave mountainous land, bears N.E., and S.W.; thence, over hilly land.

44.50 Wagon trail, bears N.E. and S.W.

48.00 Bottom of ravine, 100 lks. wide, course N.W.; arc. 100 ft.

65.95 The 144 mile monument on interstate bdy., hereafter described. Thence S. 89°59' E., chainage continuous.

69.00 Top of ridge, bears N. and S.; disc. 60 ft. to

80.57 Set a sandstone 20x15x6 ins., 15 ins. in the ground, for 5 mile cor., marked
5M on W.,
SD on N., and
US 1R on S. face; dig pits 36x36x12 ins., N. and S. of stone, 4 ft. dist., and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.

From this cor., the old cor., a stump of a cedar post, bears N., 4 lks. dist.; the new cor. sufficiently destroys the old.

Land, mountainous and hilly.

Soil, sandy clay loam; 2" rate.

Mountainous land, 40.50 chs.

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

S. 89°59' E.,
Retracing the 5th mile.

Over hilly land.

13.00 Ravine, 80 lks. wide, 60 ft. deep, course N.

25.24 The 143½ mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3½ ft. above ground, marked S.D. on N., N. on S., and 143½ M. on E. face.

33.00 Wagon trail, bears N. and S.

64.94 The 143 mile monument on interstate bdy., hereafter described.

Thence I run

N. 89°52½ E.,
Chainage continuous.

79.76 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for 6 mile cor. and N.E. cor. of Pine Ridge Indian Reservation in Nebraska, marked
NE COR US 1R on S.W.,
PR 1R 5M 1.82 chs on N.W.,
SD 1904 on N.E., and
PL T35N R44W S24 on S.E.; dig pits 36x36x12 ins., S. and W. of post, 8 ft. dist., and raise a mound of earth, 5

ft. base, 2½ ft. high, S.W. of cor.

I establish this cor. in this position on the personal evidence of W. C. Smoot, a settler in sec. 24, in 1887. Mr. Smoot is now a "Boss Farmer" on the Pine Ridge Indian Reservation. He testifies to having set his fence, (which still stands) in 1887, on the line, South, from the old cedar post. The cor. at the N. end of this fence, is now 15 lks. S. of the Reservation cor. as above restored.

Land, hilly.

Soil, sandy clay loam; 2" rate.

East Bdy. of Reservation.

From the 6 mile cor., restored as above I run

South,

Retracing the E. bdy. I find no trace of the 7 mile cor.; at 161.00 chs. fall 52 lks. E. of the 8 mile cor. The falling answers to a correction of 26 lks. per mile or 0° 11' W., from the 6" mile cor. Therefore, to restore the missing cor., from the 6 mile cor.

I run

S. 0° 11' W.,

on the 6" mile.

Over hilly land.

20.00 Leave hilly land; thence, over mountainous land, bears S.E. and W.; asc. 200 ft. to

53.00 Top of ridge, bears W., a few pines along ridge; desc. 140 ft. to

65.50 Bottom of ravine, 20 lks. wide, course E.; asc. 40 ft.

66.17 From this point, the closing cor. of secs. 24 and 25, T. 35 N., R. 44 W., from the East, which is a sandstone 4x12x5 ins. above ground, marked and witnessed as described by the surveyor general; bears East, 33 lks. dist.

80.50 Set an ash post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for 7 mile cor., marked

7M on N,

US IR on W., and

PL T35N R44W S25 on E. face; dig pits, 36x36x12 ins., E. and W. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, N. of cor.

I again, make diligent search in this

vicinity but can find no trace of old cor., said to be a cedar post.
Land, hilly and mountainous.
Soil, sandy clay loam; 2" rate.
Timber, a few pine.
Mountainous land, 60.50 chs.

June 21, 1904

S. 0° 11' W.,
on the 7th mile.
Over mountainous land, desc. 90 ft. to
4.30 Bottom of ravine, 50 lks. wide, course E.; timber and brush along ravine bottom; asc. 150 ft. to
10.00 Point of ridge, bears SW.; desc. 150 ft. to
16.20 Spring branch, course NE., in bottom of ravine, 80 lks. wide, course NE., heavy timber along ravine; asc. 175 ft. to
29.50 Point of ridge, bears E.; desc. 160 ft. to
34.00 Bottom of ravine, 20 lks. wide, course NW., heavy timber along ravine bottom; asc. 225 ft.
66.57 The closing cor. of secs. 25 and 36, T. 35 N., R. 44 W., from the E., which is a sandstone 9x6x4 ins. above ground

marked and witnessed as described by the surveyor general, on line.
80.50 The 8 mile post, which is a cedar post, 5 ins. sq., 16 ins. above ground, marked U S M R 8 on W.
I change markings and restore cor. as follows: Destroy old marks and mark
8 M on N.,
U S I R on W., and
P L T 35 N R 44 W S 36 on E. fac; dig pits, 36x36x12 ins., E. and W. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, N. of cor.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, elm, ash, and cottonwood and pine.
Mountainous land, 80.50 chs.

From the 8 mile cor.

I run

South,
retracing the 8th mile: at 80.33 chs. fall 58 lks. E. of the 9 mile cor. therefore the line bears S. 0° 25' W. In

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

order to properly record the topography
From the 8 mile cor.
I run
S.0°25'W,
on the 8th mile.
Over mountainous land, asc. 30 ft. to
1.00 Top of ridge, bears N.W. and S.E.; thence, over broken mountainous land.
9.50 Head of ravine, course W.
23.00 Head of ravine, course W.; a few pines along ravine; asc. 100 ft. to
53.00 Wagon trail on top of ridge, bears E. and W.; desc. 200 ft.
65.66 From this point the closing cor. of Tws. 34 and 35 N., R. 44 W., from the E., which is a sandstone, broken off, marked and witnessed as described by the surveyor general, practically on line.
78.00 Bottom of ravine, 50 lks. wide, course W.; asc. 160 ft. to
80.33 The 9 mile cor., a cedar post, 5 ins. sq., 16 ins. above ground, marked USMR 9 on W. face. I destroy the old markings and restore cor. as follows: mark
9M on N.,

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

US 1R on W., and
PL T34N R44W S1 on E. face; dig pits, 36x36x12 ins., E. and W. of post, 4 ft. dist., and raise a mound of earth, 5 ft. base, 2½ ft. high, N. of cor.
Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Mountainous land, 80.33 chs.

From the 9 mile cor.
I run
South,
retracing the E. bdy: I find no trace of the 10 mile cor.; at 16.10 chs. fall 56 lks. E. of the SW. cor. of the Pine Ridge Indian Reservation in Nebraska. The falling answers to a correction of 28 lks. per mile or 0°12' W., from the 9 mile cor. Therefore, to restore the missing 10 mile cor., and to correct topography,
From the 9 mile cor.
I run
S.0°12' W.,
on the 9th mile.

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

Over mountainous land, desc. 150 ft.

7.75 Bottom of ravine, 20 lks. wide, course NW.; scattering pines along ravine; asc. 300 ft. to

35.00 Point of ridge, bears E.; desc. 260 ft.

48.00 Ravine 20 lks. wide, 20 ft. deep, course SW.

59.50 Bottom of ravine, 20 lks. wide, course W.; asc. 130 ft.

65.43 On line, the closing cor. of secs. 1 and 12, T. 34 N., R. 44 W., from the E., which is a sandstone 8 x 10 x 4 ins. above ground, marked and witnessed as described by the surveyor general.

67.00 Top of ridge, bears E. and W.; desc. 140 ft. to

75.20 Bottom of ravine, 40 lks. wide, course W.; brush and timber along bottom: water in pools at intervals; asc. 100 ft. to

80.55 Deposit a marked stone 12 ins. in the ground for 10 mile cor.; dig pits, 36 x 36 x 12 ins. E. and W. of cor., 5 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, over deposit. In W. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked 10 M on N.,

Resurvey of Bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

US 1 R on W. and
PLT 34 N R 44 W S 12 on E. face. From the cor.
A pine, 12 ins. diam., bears N. 70° 40' W., 89 lks. dist., marked US 1 R 10 M B T.
A pine, 14 ins. diam., bears N. 35° 30' E., 132 lks. dist.; marked 10 M PLT 34 N R 44 W S 12 B T.
No other trees for bearing trees.
I again make diligent search in this vicinity but can find no trace of old cor., said to be a cedar post.
Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, pine, elm and ash.
Mountainous land, 80.55 chs.

S. 0° 12' W.,
on the 10th mile.
Over mountainous land, through scattering pine timber; desc. 60 ft. to

9.50 Bottom of ravine, 80 lks. wide, course W.; asc. 140 ft. to

35.00 Point of ridge, bears E.; desc. 120 ft. to

41.00 Bottom of ravine, 80 lks. wide, course W.; heavy small elm and ash timber along ravine bottom: asc. 180 ft.

45.00 Leave pine timber, bears E. and W.

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

old clos. cor. secs. 12 & 13 from the East cannot be found.

72.00 Wagon trail, bears E. and W.

79.50 Top of ridge, bears E. and W.; desc. 20 ft. to

80.55 The 11" mile cor. and S.E. cor. of the Pine Ridge Indian Reservation in Nebraska; which is a cedar post, 5 ins. sq., 30 ins. above ground, marked U S M R 11 on N.W. face. I destroy the old markings and restore the cor. in the same position, as follows:

Reset the cedar post, 5 ins. sq., 4 ft. long, with marked stone, 36 ins. in the ground, for 11" mile cor., and S.E. cor. of the Pine Ridge Indian Reservation, marked

U S I R S E COR on N.W.,

P L 1904 10 M 4.23 chs on N.E.,

P L T 34 N R 44 W S 13 on S.E., and

P L on S.W. face: from which

A pine, 10 ins. diam., bears N. 23° 45' W., 35 lks. dist., marked U S I R 11 M B T.

No other trees for bearing trees: dig pits, 36 x 36 x 12 ins. N. and W. of post, 8 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, N.W. of cor.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

Timber, pine, ash, and elm.

Mountainous land, 80.55 chs.

South Bdy. of Reservation:

From the 11 mile cor. repaired as above.

I run

West,

on the S. bdy.; at 79.95 chs. fall 8 lks. S. of the 12 mile cor. In order to correct topography, from the 11 mile cor.

I run

N. 89° 57' W.,

on the 11" mile, retracing.

Over mountainous land, a few pine trees.

7.60 Bottom of ravine, 25 lks. wide, 120 ft. deep, course S.

After diligent search I can find no trace of the closing cor. of secs. 13 and 14, T 34 N., R. 44 W., from the south, said to be a sandstone.

32.00 Top of ridge, bears N. and S.; desc. 150 ft. to

41.02 Bottom of ravine, 20 lks. wide, course S.W.

46.50 Bottom of ravine, 40 lks. wide, course S.; asc. 150 ft. to

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

56.50 Top of ridge, bears N. and S.; desc. 120 ft. to
61.50 Bottom of ravine, 20 lks. wide, course S.W.
66.00 Bottom of ravine, 20 lks. wide, course S.
72.00 Bottom of ravine, 20 lks. wide, course S.E.; asc. 150 ft.
76.00 Top of ridge, bears N. and S.; desc. 60 ft. to
79.95 The 12 mile cor., which is a cedar post, 3 ins. diam., 16 ins. above ground, badly decayed, marked US MR 12 on N. I destroy the old cor. and restore it in the same position as follows:

Set an ash post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, marked

12 M on E.,

US 1.R on N., and

PL T34N R44W S14 on S. face: dig pits 36x36x12 ins., N. and S. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.

No trees within limits for bearing trees.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 79.95 chs.

June 22; at this 12th mile cor.; I set off

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

23°27' N. on the decl. arc; and, at 0h 1.7m p.m., l.m.t., observe the sun on the meridian: the resulting lat. is 42°56' which is about 0.4 greater than the proper lat.

From the 12 mile cor.,

I run

West,

on a random line; I find no trace of the 13, 14, or 15 mile cors.; at 4 miles 1.24 chs., fall 40 lks. S. of the 16 mile cor. The falling answers to a correction of 10 lks. per mile and 31 lks. W., or 0°4' N., per mile; therefore to restore the missing cors. as follows

From the 12 mile cor.

I run

N. 89°55' W.,

on a true line on the 12th mile.

Over mountainous land.

6.05 On line, the closing cor. of secs. 14 and 15 T.34N., R.44W., from the S., which is a sandstone, 15x4x5 ins. above ground, marked and witnessed as described by the surveyor general

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~
CHAINS.

19.00 Top of ridge, bears N.W. and S.E.; desc. 250 ft., through scattering pine timber, bears N. and S.E., to
42.50 Bottom of ravine, 10 lks. wide, course S.W.; asc. 120 ft.
44.00 Leave timber, bears N. and S.
50.50 Point of ridge bears N.; desc. 120 ft. to
56.40 Bottom of ravine, 10 lks. wide, course S.W.; asc. 100 ft. to
59.50 Top of ridge, bears N.E. and S.W.; desc. 120 ft. to
66.70 Bottom of ravine, 40 lks. wide course S.W.;
71.00 Bottom of ravine, 70 lks. wide, course S.; asc. 130 ft. to
77.00 Top of ridge, bears N. and S.; desc. 30 ft. to
80.31 Set a sandstone 20×15×6 ins., 15 ins. in the ground for 13th mile cor.; marked
USIR on N.,
PL on S., and
13M on E. face: dig pits, 36×36×12 ins., N. and S. of stone, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.
No trees for bearing trees.
At this point I again make careful seach, but can find no trace of the old 13 mile cor., said to be a cedar post

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~
CHAINS.

Land mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.31 chs.

N. 89° 56' W.,
on the 13th mile.
Over mountainous land, through scattering pine timber, bears N. and S.
6.64 From this point, the closing cor. of secs. 15 and 16, T. 34 N., R. 44 W., from the S.; which is a sandstone 6×10×5 ins. above ground, marked and witnessed as described by the surveyor general, bears N., 3 lks.
15.00 Begin descent of 180 ft., bears N.E. and S.W.; to
41.00 Bottom of ravine, 20 lks. wide, course S., comes from N. and N.E.; asc. 170 ft.
42.00 Leave pine timber, bears N. and S.
49.00 Top of ridge, bears N. and S.; desc. 200 ft.
53.20 Wagon trail, bears N.E. and S.W.
78.00 Foot of descent, leave mountainous land, bears N.W. and S.E.; thence, over level bottom land, through dense undergrowth and scattering timber

80.31 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground for 14th mile cor., marked
14M on E.,
US1R on N., and
PLT34NR44WS16 on S. face; from which
A boxelder, 20 ins. diam, bears N. 45° E; 17 lks. dist., marked US1R 14M BT.
An ash, 14 ins. diam., bears S. 74°10' E., 40 lks. dist., marked 14M PLT34NR44 WS16 BT. No other trees for bearing trees; dig pits, 36 x 36 x 12 ins., N. and S. of post, 4 ft dist., and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.
Land, mountainous and level.
Soil, sandy clay loam; 2nd rate.
Timber, pine, ash, elm, cottonwood and boxelder. undergrowth, plum and cherry.
Mountainous land or dense undergrowth 80.31 chs.

N. 89°56' W.,
on the 14th mile.
Over level bottom land, through dense

undergrowth and scattering timber.
1.20 Larabee Creek, 12 lks. wide, 6 ins. deep, course NW., good current; banks steep, 3 ft. high.
4.50 Larabee Creek, 10 lks. wide, 6 ins. deep, course SW.
6.73 From this point the closing cor. of secs. 16 and 17, T.34 N., R.44 W., from the S., which is a sandstone 10 x 3 x 4 ins above ground, marked and witnessed as described by the surveyor general, bears N. 6 lks. dist.
7.20 Larabee creek, 15 lks. wide, 12 ins. deep, course N.
12.00 Larabee creek, 8 lks. wide, 12 ins. deep, course SW.
19.20 Larabee creek, 7 lks. wide, 10 ins. deep, course N., swift current.
20.00 Leave timber and undergrowth, bears N. and S.; asc. 20 ft. E
20.20 Top of bank, thence, over level land.
22.75 From this point, house of Williams, bears N. 31°30' E., 6 chs.; of Chas. Cutler bears N. 10°45' W., 15 chs.; of Nels. Tousand, bears N. 36°45' E. 25 chs.
June 22; at this point, I set off 23°27'

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation

~~West of the~~ in Nebraska ~~th Principal Meridian~~.

CHAINS.

N. on the decl. arc; and, 42°56′ on the lat. arc; and, at 3ʰ 15ᵐ p.m., l.m. t., determined a meridian with the solar.

34.00 Bottom of ravine, 150 lks. wide, 30 ft. deep, course N.; leave level land; thence, over mountainous land, bears N. and S.; asc. 120 ft. ±

50.00 Point of ridge, bears S.; desc. 120 ft.

52.00 From this point a cabin bears N., 7 chs. dist.

63.00 Bottom of ravine, 20 lks. wide, course N.; comes from S. and S.E.; pine timber along ravine; asc. 170 ft. ±

80.31 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground for 15 mile cor., marked
15 M on E.,
US IR on N., and
PL T34N R44W S17 on S. face; dig pits, 36×36×12 ins., N. and S. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.

I again make search in this vicinity, but can find no trace of the old cor., said to be a cedar post.

Land, mountainous and level.

Soil, sandy clay loam; 2nd rate.

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation

~~West of the~~ in Nebraska ~~th Principal Meridian~~.

CHAINS.

Timber, pine, elm, ash, and box-elder; undergrowth, plum, cherry, and grape.

Mountainous land, or dense undergrowth, 66.31 chs.

N. 89°56′ W.,
on the 15th mile.

Over mountainous land; desc. 160 ft., a very few pines along ridges.

5.59 From this point the closing cor. of secs. 17 and 18, T. 34 N., R. 44 W., from the S., which is a sandstone 12×4×6 ins. above ground, marked and witnessed as described by the surveyor general, bears S., 5 lks.

13.50 Bottom of ravine, 60 lks. wide, course N.; asc. 200 ft. ±

22.00 Top of ridge, bears N. and S.; desc. 130 ft. ±

35.00 Bottom of ravine, 100 lks. wide, course N.; asc. 130 ft. ±

42.00 Top of ridge, bears N. and S.; desc. 145 ft. ±

55.00 Bottom of ravine, 200 lks. wide, course N.; asc. 180 ft. ±

63.50 Top of ridge, bears N. and S.; desc. 120 ft. ±

80.31 The 16th mile post, which is a stump

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation.

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

of a cedar post, with top of post lying alongside, marked US MR 16. I destroy all traces of the old cor. and restore it in the same position as follows:

Set an elm post, 3 ft. long, 6 ins. sq., with marked stone, 24 ins. in the ground for 16th mile cor., marked

16 M on E.,

US 1 R on N., and

PL T34N R44W S18 on S. face; dig pits, 36×36×12 ins. N. and S. of post, 4 ft. dist., and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.

No trees for bearing trees.

Land mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 80.31 chs.

June 22, 1904.

From the 16th mile cor., I

I run

West,

on a random line on the 16th mile,

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation.

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

and at 81.06 chs. fall 15 lks. S. of the 17th mile cor. To correct topography,

From the 16th mile cor.

I run

N. 89° 54' W.,

on the 16th mile.

Over mountainous land, desc. 50 ft.

7.26 On line, the closing cor. of Ts. 34 N., Rs. 44 and 45 W., from the S., which is a sandstone 15×4×5 ins. above ground marked and witnessed as described by the surveyor general.

11.00 Bottom of ravine, 80 lks. wide, course NW.; asc. 140 ft. to

25.00 Top of ridge, bears N. and S.; desc. 150 ft. to

39.75 White Clay creek, 14 lks. wide, 18 ins. deep, course N., slow current. Leave mountainous land bears N. and SW.; thence over level bottom land, through scattering timber.

61.00 Mail road from Rushville Nebraska to Pine Ridge South Dakota, bears N. and S. Leave level bottom and timber, bear N. and S.; thence, over mountainous land asc. 60 ft.

68.00 Telephone line, from Rushville Nebraska

to Pine Ridge South Dakota; bears N. and S.

81.06 The 17th mile cor., which is a cedar post, 6 ins. sq., 12 ins. above ground marked U S M R 17 on N. I destroy the old markings and remark it
17 M on E.,
U S I R on N., and
P L T 34 N R 45 W S 13 on S face: from which
A pine, 10 ins. diam., bears S. 49° 30' W., 95 lks. dist., marked 17 M P L T 34 N R 45 W S 13 B T.
A pine, 10 ins. diam., bears N. 17° W: 336 lks. dist., marked U S I R 17 M B T. No other trees for bearing trees.
dig pits, 36 x 36 x 12 ins., N. and S. of post, 4 ft. dist., and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.
Land, mountainous and level.
Soil, sandy clay loam; 2nd rate.
Timber, pine, ash, elm and box-elder.
Mountainous land, 59.81 chs.

From the 17 mile cor.

I run

West,

on a random line along the Reservation bdy.; I find no trace of the 18 mile cor.; and, at 160.00 chs. fall 74 lks. S. of the 19 mile cor. Therefore, to restore the missing cor., and correct topography.

From the 17 mile cor.

I run

N. 89° 44' W.,

on the 17th mile.

Over mountainous land, through scattering pine timber, bears N. and S., asc. 120 ft.

7.62 On line, the closing cor. of secs. 13 and 14, T. 34 N., R. 45 W., from the S., which is a sandstone 3 x 12 x 5 ins. above ground, marked and witnessed as described by the surveyor general,

11.50 Point of ridge, bears N.; disc. 180 ft.

18.50 Ravine bottom, 5 lks. wide, 20 ft. deep, course S.

25.00 Bottom of ravine, 50 lks. wide, course S E., asc. 140 ft. to

39.50 Point of ridge, bears S., disc. 120 ft. to

49.00 Bottom of ravine, 40 lks. wide, course N E.; asc. 175 ft. to

60.50 Top of ridge, bears N E. and S W.; disc. 160 ft. to

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

75.00 Bottom of ravine, 20 lks. wide, course NE.; asc. 70 ft. ±

80.00 Set an ash post, 3 ft. long, 6 ins. sq., with marked stone, 24 ins. in the ground for 18th mile cor.; marked
18 M on E.,
U S 1 R on N. and
PL T34N R45W S14 on S. face; no trees within limits for bearing trees; dig pits, 36x36x12 ins. N. and S. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.

I again make diligent search in the vicinity, but can find no trace of old cor., said ± be a cedar post.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 80.00 chs.

June 23: At the 18 mile cor., at 9h 15m a.m., l. m. t., I set off 42°56' on the lat. arc; 23°27' N. on the decl. arc, and determine a meridian with the solar.

Thence I run

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

N. 89°44' W.,
on the 18th mile.

Over mountainous land, through scattering pine timber; asc. 80 ft. ±

4.20 Top of ridge, bears N. and S.

7.56 From this point, the closing cor. of secs. 14 and 15, T. 34 N., R. 45 W., from the S., which is a sandstone, 10x5x5 ins. above ground, marked and witnessed as described by the surveyor general, bears N. 14 lks. dist.

Thence over a succession of broken ridges, bearing N. and S.

35.00 Top of a ridge, bears N. and S.; desc. 170 ft. ±

45.50 Bottom of ravine, 70 lks. wide, course NW.; asc. 120 ft. ±

50.00 Point of ridge, bears S.

62.00 Top of ridge, bears N. and S.; desc. 180 ft. ±

76.60 Bottom of ravine, 10 lks. wide, course NW.; asc. 80 ft. ±

80.00 The 19 mile cor., which is a cedar post, 5 ins. sq., 12 ins. above ground, marked U S M R 19 on N. I destroy the old markings and restore the cor. as follows.

The old cedar post, I re-mark

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

19M on E.,
US1R on N., and
PLT34NR45WS15 on S. face: no trees for bearing trees; dig pits 36×36×12 ins N. and S. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high E. of cor.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs

From the 19 mile cor.

I run

West, on a random line along the Reservation bdy.; I find no trace of the 20 mile cor.; and, at 159.88 chs fall 80 lks. S. of the 21 mile cor. Therefore, to restore the missing cor., and correct topography.

From the 19 mile cor.

I run

N. 89°43' W.,

on the 19th mile.

Over mountainous land, through

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

scattering pine timber; asc. 50 ft. to
3.30 Top of ridge, bears N. and S.; disc. 130 ft.
7.15 On line, the closing cor. of secs. 15 and 16, T. 34 N., R. 44 W., from the S., which is a sandstone 14×4×5 ins. above ground, marked and witnessed as described by the surveyor general.
7.60 Bottom of ravine, 5 lks. wide, course N. asc. 190 ft.
18.80 Top of ridge, bears N. and S.; disc. 100 ft. to
26.00 Bottom of ravine, 20 lks. wide, course NW.; asc. 90 ft. to
29.00 Point of ridge, bears SE.; disc. 140 ft. to
36.70 Bottom of ravine, 30 lks. wide, course N.; asc. 140 ft. to
41.50 Top of ridge, bears N. and S.; disc. 120 ft. to
44.70 Bottom of ravine, 60 lks. wide, course NE.; asc. 180 ft. to
56.50 Top of ridge, bears NE. and SW.; disc. 140 ft. to
65.00 Bottom of ravine, 60 lks. wide, course NE., asc. 160 ft. to
79.94 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for 20th mile cor., marked
20 M on E.,
US1R on N., and

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian.

CHAINS.

PLT34NR45WS16 on S., from which
A pine, 18 ins. diam., bears S. 14° W., 49 lks. dist., marked 20MPLT34NR45W S16 BT.
A pine, 18 ins. diam., bears N. 86°30' E., 36 lks. dist., marked 2S1R 20M BT.
No other trees for bearing trees: dig pits, 36x36x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, E. of cor.
I again make diligent search in this vicinity but can find no trace of old cor., said to be a cedar post.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 79.94 chs.

June 23: At this 20 mile cor.; I set off 23°27' N. on the decl. arc; and, at 0h 1.9m p.m., l. m. t., observe the sun on the meridian; the resulting lat. is 42°56' which is about 0'.4 greater than the proper lat.

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian.

CHAINS.

N. 89°43' W.,
on the 20th mile.
Over mountainous land, through scattering pine timber, desc. 120 ft.
7.98 On line, the closing cor. of secs. 16 and 17, T. 34 N., R. 45 W., from the S., which is a sandstone 14x4x8 ins. above ground, marked and witnessed as described by the surveyor general.
11.80 Bottom of ravine, 60 lks. wide, course N.; asc. 120 ft. ±
18.20 Top of ridge, bears N.W. and S.E.; desc. 200 ft.
40.00 Bottom of ravine, 60 lks. wide, course N.W.
47.20 Bottom of ravine, 40 lks. wide, 40 ft. deep, course N.E.
54.00 Foot of descent, bottom of ravine, 10 lks. wide, course N.E.; asc. 120 ft. ±
62.00 Point of ridge, bears S.W.; desc. 40 ft. ±
64.50 Bottom of ravine, 20 lks. wide, course N.E.; asc. 200 ft. to
79.94 The 21 mile cor. and S.W. cor. of the Reservation, which is a cedar post, 6 ins. sq., 12 ins. above ground, marked US MR SEC 21 on N.E. I destroy the old markings and restore cor. as follows: remark the post

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

USIR SW COR on NE.,
20M 6.36 Chs 1904 PL on SE.
PL T34N R45W S17 on SW., and
PL on NW. face; from which
a pine, 11 ins. diam., bears S. 15° W, 180 lks. dist., marked PL T34N R45W S17 21M BT
a pine, 12 ins. diam., bears N. 46° 20' W., 278 lks. dist., marked PL T34N R45W S17 21M BT.
No other trees for bearing trees: dig pits, 36×36×12 ins. N. and E. of post, 8 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, NE. of cor.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber pine.
Mountainous land, 79.94 chs.

West Bdy. of Reservation.

From the 21" mile cor., repaired as above

I run

North,

on a random line; at 80.20 chs. fall 63 lks. W. of the 22" mile cor.; I find no trace of the closing cor. of

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

secs. 8 and 17, T. 34 N., R. 45 W., from the W., said to be a sandstone.
Therefore the true bearing of the 21" mile of the Reservation bdy. is N. 0° 27' E., 80.20 chs. and I find the topography on this mile to be as given in the original field notes.
The 22" mile cor. is a cedar post, 5 ins. sq., 12 ins. above ground, marked USM R22 on E. face. I destroy these markings and restore the cor. at the same point as follows.
The old post, I mark
22M on S.,
USIR on E., and
PL T34N R45W S8 on W. face; dig pits, 36×36×12 ins, E. and W. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, S. of cor.

From the 22" mile cor.

I run

North,

on a random line, along the Reservation bdy., I find no trace of the

23" mile, cor., therefore, I continue north; and, at 160.92 chs. fall 116 lks. W. of the 24 mile cor.
Therefore, to restore the missing cor. and correct topography.
From the 22" mile cor.,
I run
N. 0° 25' E.,
on the 22nd mile.
Over gently rolling land.
5.77 On line, the closing cor. of secs. 5 and 8, T. 34 N., R. 44 W., from the W., which is a sandstone, 3 x 14 x 6 ins above ground, marked and witnessed as described by the surveyor general.
43.70 From this point, a log cabin bears E., 4 lks. dist.
44.00 Leave gently rolling land, bears E. and W.; thence, over level bottom land, through, scattering timber.
45.40 Craven creek, 5 lks. wide, 4 ins. deep, course E.
49.90 Craven creek, 7 lks. wide, 2 ft. deep, course W.
52.75 Craven creek, 7 lks. wide, 4 ins. deep, course E. Leave level land, and

timber, bears E. and W.; thence over hilly land.
80.46 Set an ash post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for 23" mile cor., marked
23 M on S.,
U S I R on E., and
P L T 34 N R 45 W S 5 on W. face; dig pits, 36 x 36 x 12 ins, E. and W. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, S. of cor.
I again make diligent search in this vicinity but can find no trace of old cor., said to be a cedar post. As this cor. falls about 30 lks. N E. of a barn, it has undoubtedly been destroyed by the horses.
Land, gently rolling, level and hilly.
Soil, sandy clay loam; 2" rate.
Timber, elm.

June 23, 1904.

N. 0° 25' E.,
on the 23" mile.
Over hilly land.

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

8.12 On line, the closing cor. of Tps. 34 and 35 N., R. 45 W., from the west., which is a sandstone, 4×12×8 ins. above ground marked and witnessed as described by the surveyor general

25.00 Bottom of ravine, 100 lks. wide, course E.; leave hilly land: thence, over mountainous land, bears E. and W.; asc. 180 ft. ±

65.00 Top of ridge, bears E. and W.; disc. 50 ft. ±

80.46 The 24" mile cor., which is a cedar post, 5 ins. sq., 16 ins. above ground, marked U S M R 24 on E., I distroy these markings and restore the cor. as follows:

The old post, I mark

24 M on S.,

U S I R on E., and

P L T 35 N R 45 W S 32 on W. face; dig pits, 36×36×12 ins., E. and W. of post, 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, S. of cor.

Land, hilly and mountainous.

Soil, sandy clay loam; 2" rate.

Mountainous land, 55.46 chs.

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation.

~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

From the 24" mile cor.

I run

North,

on a random line, along the Reservation bdy.; at 7.75 chs. fall 5 lks. W. of the closing cor. of secs. 29 and 32, T. 35 N., R. 45 W., from the W., which is a sandstone, 4×12×5 ins. above ground, marked and witnessed as described by the surveyor general: and, at 80.19 chs. fall 56 lks. W. of the 25 mile cor. Therefore this line bears N. 0° 24' E., and the closing cor., noted above is on the true line.

The old 25 mile cor., a cedar post, has broken off, but stump remains in ground; the post lying alongside is marked U S M R 25 on one side. I distroy these marks and restore the cor. as follows:

Reset the old post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, at the same point, for the 25" mile cor., marked

25 M on S.,

U S I R on E., and.

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian.

CHAINS.

PLT35NR45W S 29 on W. face; dig pits, 36x36x12 ins, E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, S. of cor.

I find the topography on this line, to be as given in the original field notes.

From the 25 mile cor.,

I run

North,

on a random line along the Reservation bdy.; I find no trace of the closing cor. of secs. 20, and 29, T. 35 N., R. 45 W., from the W., said to be a sandstone. At 79.02 chs. intersect the state bdy. 37 lks. S. 81°30' W. of the 26 mile cor. Therefore the true course of the 25" mile is N. 0°16' E., 79.02 chs. and the 26" mile post is 6 lks. N. of the interstate bdy.

The 26" mile post, is a cedar post, 5½ ins. sq., 20 ins. above ground marked USMR 26 NWC. I destroy these marks and reestablish the cor. on the interstate bdy. and N. bdy. of the

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian.

CHAINS.

Pine Ridge Indian Reservation in Nebraska, immediately South of its old position, as follows:

Reset the cedar post, 4 ft. long, 5½ ins. sq., with marked stone, 36 ins. in the ground for 26" mile cor., and NW. cor. of the Reservation, marked

USIR NW COR on SE.,
PRIR on NE.,
SD PRIR 1904 on NW., and
PLT35NR45W S20 25M 5.81 Chs
on SW. face; dig pits, 36x36x12 ins., E. and S. of post, 8 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high SE. of cor.

This cor. is now 11.75 chs. S. 89°44' E., of the 153 mile post on interstate bdy. W. of the initial point.

I find the topography on this line to be as given in the original field notes.

North Bdy. of Reservation.

From the 26 mile cor.,

I run

S. 89°44' E.,

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

on the 26" mile.
Over hilly land.
28.16 The 152½ mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3 ft. above ground, marked S.D. on N., N. on S., and 152½ M. on E. face.
40.00 Ravine, 180 lks. wide, 50 ft. deep, course N.
67.99 The 152 mile monument on interstate bdy., hereafter described.
Thence 2 nun
N. 89° 59½ E.,
Chainage continuous.
80.47 Fall 2 lks. S. of the 27 mile post on Reservation bdy., which is a cedar post, 5 ins. sq., 18 ins. above ground, marked U S M R 27 on S face. I destroy these marks and re-establish the cor., on line, 2 lks. S. of its former position as follows:
Reset the cedar post, 4 ft. long, 5 ins. sq., with marked stone, 36 ins. in the ground for 27" mile cor.; marked
27 M on W.,
U S I R on S., and
S D on N. face; dig pits; 36 x 36 x

Resurvey of bdys. of ~~Township~~ Pine Ridge Indian ~~Range~~ Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

12 ins., N. and S. of cor., 4 ft. diat.; and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.
Land, hilly.
Soil, sandy clay loam; 2" rate.

N. 89° 59½ E.,
on the 27" mile.
Over rolling land.
27.24 The 151½ mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3 ft. above ground, marked S.D. on N., N. on S., and 151½ M. on E. face.
38.90 On line, a mound of earth, stump of oak post and pits E. and W. presumably the 1/4 sec cor. on S. bdy. of sec. 21, So Dak.
58.84 On line, a mound of earth, with pits E. and W. presumably 1/16 sec cor. on S. bdy sec 21. So Dak.
67.03 The 151 mile monument on interstate bdy. hereafter described. Thence 2 nun S. 89° 59½' E., chainage continuous.
78.85 4 lks. N. of last, a mound of earth, with pits N., S., E. and W. presumably clos. cor of secs. 21 and 22 in So Dakota
80.52 Fall 2 lks. N. of the 28 mile post, a cedar post, 2 x 4 ins., 16 ins. above ground, marked U S M R 28 on

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian.

CHAINS.

N. face; the post is nearly worn out, & therefore destroy all traces of it; and reestablishe the cor. on the interstate bdy. and N. bdy. of the Reservation, 2 lks. N. of its former position, as follows:

Set an ash post, 3 ft. long, 5 ins. sq., with marked stone 24 ins. in the ground, marked

28 M on W.,
S D on N., and
U S I R on S. face; dig pits, 36x36x12 ins., N. and S. of post, 4 ft. dist., and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.

Land, rolling.
Soil, sandy clay loam; 2nd rate.

S. 89° 56' E.,
on the 28th mile.
Over rolling land.

26.31 150½ mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3 ft.

Resurvey of Bdys. of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian.

CHAINS.

above ground marked S.D. on N., N. on S. and 150½ M. on E. face.

38.32 On line, mound of earth, with pits E. and W. presumably 1/4 sec cor. on S. bdy sec 22. So Dak.

58.30 On line, mound of earth, with pits E. and W. presumably 1/16 sec cor on S. bdy sec 22. So Dak.

64.50 Drain, 10 lks. wide, 2 ft. deep, course NE.

66.05 The 150 mile monument on interstate bdy., hereafter described.

78.25 3 lks. N. of line, a stump of an oak post, with mound of earth, and pits N., S., E., and W. of stump. presumably the closing cor. of secs. 22 and 23 in S. Dakota

& find no trace of the 29th mile cor., therefore I continue line E. along the bdy., and at 158.18 chs. fall 1 lk. S. of the 30 mile cor. Therefore the proper position for the 29 mile cor. is 79.09 chs. from the 28 mile cor., Therefore, on the true line at

79.09 Set an elm post, 3 ft. long, 6 ins. sq., with marked stone, 24 ins. in the ground, for 29th mile cor., marked

29 M on W.,
S D on N., and
U S I R on S. face; dig pits, 36x36x12 ins., N. and S. of post 4 ft. dist.;

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.
I again make diligent search in this vicinity, but can find no trace of the old cor., said to be a cedar post.
Land, rolling.
Soil, sandy clay loam; 2" rate.

June 24: at this cor., I set off 23°26' N, on the decl. arc; and, at 0h 2.2m p. m., l. m. t., observe the sun on the meridian; the resulting lat. is 43°0' which is about the proper lat.

S. 89°56' E.,
on the 29th mile.
Over rolling land.
26.76 The 149½ mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3 ft. above ground, marked and witnessed as described by the surveyor general.
29.50 Shallow drain, course SE.
66.68 The 149 mile monument on interstate bdy., hereafter described.

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

Thence run
S. 89°42½ E.,
Chainage continuous.
79.09 Fall 1 lk. S. of the 30 mile cor., which is a stump of a cedar post. I destroy all traces of the old cor., and reestablish it on the interstate line and N. bdy of the Reservation, 1 lk. S. of its former position, as follows:
Set an ash post, 3 ft. long, 6 ins. sq., with marked stone, 24 ins. in the ground, for 30th mile cor., marked
SD on N,
30M on W., and
US IR on S. face; dig pits 36x36x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high, W. of cor.
Land, rolling.
Soil, sandy clay loam; 2" rate.

S. 89°42½ E.,
on the 30th mile.
Over rolling land.
17.40 Wagon trail, bears NW. and SE.; disc. 80 ft. E

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

22.00 Foot of descent, leave rolling land, thence over level bottom land, through dense undergrowth bears N. and S.

24.60 White Clay creek, 10 lks. wide, 18 ins. deep, course N.

27.03 The 148½ mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 10 ins. sq., 3 ft. above ground, marked S.D. on N., N. on S., and 148½ M. on E. face.

40.90 White Clay creek, 16 lks. wide, 8" ins. deep, course SW.

57.40 White Clay creek, 10 lks. wide, 10 ins. deep, course NW.

59.20 White Clay creek, 12 lks. wide, 10 ins. deep, course SW.

62.85 White Clay creek, 12 lks. wide, 24 ins. deep, course N.

65.00 Leave bottom and dense undergrowth, bears N. and S.; thence, over rolling land.

66.60 The 148 mile monument on interstate bdy. hereafter described.

Thence S. 89° 55' E. continuing measurement

78.00 Telephone line, from Rushville Nebr. to Pine Ridge So. Dak., bears N. and S.

78.21 The 1st mile cor. on Reservation bdy. and point of beginning.

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
~~West of the~~ in Nebraska ~~th Principal Meridian.~~

CHAINS.

Land, rolling and level.
Soil, sandy clay loam; 2" rate.
Undergrowth, ash, elm, plum and cherry.
Dense undergrowth, 43.00 chs.

2 P.M., June 24, 1904

Direct test the adjustments of the solar by an observation on a meridian established from Polaris observations, and find them correct, at the point near the cor. of Tws. 34 and 35 N., Rs. 44 and 45 W., on June 25, 1904, as recorded in field notes of Tp. exteriors, book C. of surveys executed under this contract.

General Description.

The surface of this Reservation is generally very rough, mountainous land, steep, sharp, ridges, covered with scattering pine timber. The valley along White Clay creek, broadens at the north, and there is found

Resurvey of bdys. of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian.

CHAINS.

smooth land. The Reservation is well watered by White Clay, Larabee and Craven Creeks and tributaries. There is considerable timber along the creeks. The soil is all a sandy clay loam, and well adapted to cultivation.

There are settlers along all the streams, squatted on every tillable quarter section.

George W. Bates
U.S. Deputy Surveyor.

Note: I find no corners, either of Nebraska or South Dakota surveys, other than those hereinbefore described in these notes on the bdys. of this reservation.

George W. Bates
U.S. Deputy Surveyor.

Township Range
West of the th Principal Meridian.

CHAINS.

Running of lines of Township Pine Ridge Indian Range Reservation
West of the in Nebraska th Principal Meridian
CHAINS.

LIST OF NAMES.

A list of the names of the individuals employed by George W. Bates U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the re survey of the boundaries of the portion of the Sioux Indian Reservation lying in parts of Ths. 34 and 35 N. Rs. 44 and 45

West of the 6" Principal meridian in Nebraska ~~South Dakota~~, showing the respective capacities in which they acted:

James W. Dawson. chainman.
Charles H. Townsend chainman.
Carlos G. Bates. moundman.
James L. Wilson. flagman

FINAL OATHS OF ASSISTANTS.

WE HEREBY CERTIFY that we assisted George W. Bates, U. S. Deputy Surveyor, in surveying all those parts or portions of the boundaries of the portion of the Sioux Indian Reservation lying in parts of Tps. 34 and 35 N., Rs. 44 and 45 West of the 6th Principal meridian, in ~~South Dakota~~ Nebraska, as represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor-General for South Dakota.

James L. Wilson flagman
James W. Dawson, Chainman.
Charles H. Townsend. "
Carlos G. Bates, monuman

Subscribed and sworn to before me this 5th day of July, 1904
C. Patterson
Notary Public

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, George W. Bates, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from Frank A. Morris, U. S. Surveyor-General for South Dakota, bearing date of the 30th day of April, 1904 I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, re-surveyed all those parts or portions of the boundaries of the Pine Ridge, Sioux Indian Reservation, in Nebraska, as defined by the Act of March 2nd 1889

of the meridian, ~~in South Dakota,~~ which are represented in the foregoing field notes as having been re-surveyed by me and under my direction; and I do further solemnly swear that all the corners of said re-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 South Dakota, and in the specific manner described in the field notes, and that the foregoing are the true field notes of such re-survey; and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.

George W. Bates.
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 23 day of July, 1904
W. L. Dawson
Ex. Clerk

64

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., FEB. 9, 1905. ~~, 190XX~~

The foregoing field notes ~~of the survey of~~ comprised in one book lettered "B" of the resurvey of the boundaries of that portion of the Sioux Indian reservation lying in parts of Tps. 34 and 35 N., Rs. 44 and 45, west

of the 6th principal meridian, in Nebraska, ~~South Dakota,~~ executed by George W. Bates, under his contract No. 158, dated April 30, 1904, ~~, 190~~ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

Surveyor-General.
for South Dakota.

2926b150-2-02

TRANS.
R.L.M.
Comp. B. & S.

No 2 K RH 1/65

Book "A".

FIELD NOTES

OF THE ~~SURVEY OF~~

Office of U. S. Surveyor General
RECEIVED
JUL 27 1904
Huron, South Dakota.

Resurvey of the west boundaries of

Ts. 34 and 35 N., R. 44,

West of the 6th Principal Meridian,

IN THE STATE OF ~~SOUTH DAKOTA~~ NEBRASKA.

As surveyed by George W. Bates
United States Deputy Surveyor.

Under his contract No. 158

Dated April 30, 1904

Survey commenced June 20, 1904

Survey completed June 26, 1904

21/66

NAMES AND DUTIES OF ASSISTANTS.

James W. Dawson.	chainman.
Charles H. Townsend.	chainman.
Carlos G. Bates.	moundman.
James L. Wilson.	flagman.

INDEX DIAGRAM. Tp..... R.....

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

3/67

PRELIMINARY OATHS OF ASSISTANTS.

WE, James W. Dawson and Charles H. Townsend

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground and plumb the tally pins either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the re-survey of the W. bdy. of the unsurveyed portion of T. 34 and 35 N., ~~of~~ R. 44 ~~W.~~; also the boundaries of the portion of the Sioux Indian reservation lying in parts of Tps. 34 and 35 N., Rs. 44 and 45, all west of the 6th P.M., in Nebraska.

James W. Dawson, Chainman.
Charles H. Townsend, Chainman.
....., Chainman.
....., Chainman.

Subscribed and sworn to before me this 21 day of June, 1904

F. E. McIlwayne
NOTARY PUBLIC, Shannon Co., S.D.
MY TERM EXPIRES NOV. 8TH, 1905.

4
68

PRELIMINARY OATHS OF ASSISTANTS.

WE, J. Carlos G. Bates.

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen and axmen in the establishment of corners and other duties, according to instructions given ~~us~~ me to the best of ~~our~~ my skill and ability, in the ~~re~~ survey of the W. bdy. of the unsurveyed portion of Ts. 34 and 35 N. of R. 44 W.; also the boundaries of the portion of the Sioux Indian reservation lying in parts of Tps. 34 and 35 N., Rs. 44 and 45, all W. 6th P.M., Neb.

Carlos G Bates, Moundman.

, Moundman.

, Axman.

, Axman.

Subscribed and sworn to before me this 21 day of June, 1904

F. E. McIlvrey
NOTARY PUBLIC, Shannon Co., S.D.
MY TERM EXPIRES NOV. 8TH, 1905.

I, James L. Wilson, do solemnly swear that I will well and truly perform the duties of flagman, according to instructions given me, to the best of my skill and ability, in the ~~re~~ survey of the W. bdy. of the unsurveyed portions of Ts. 34 and 35 N of R. 44 W.; also the boundaries of the Sioux Indian reservation lying in parts of Ts. 34 and 35 N., Rs. 44 and 45, W. 6th P.M., Neb.

James L. Wilson, Flagman.

Subscribed and sworn to before me this 21 day of June, 1904

F. E. McIlvrey
NOTARY PUBLIC, Shannon Co., S.D.
MY TERM EXPIRES NOV. 8TH, 1905.

100-2-02

Resurvey of W. bdy. Township 35 N. Range 44
West of the Sixth Principal Meridian.

CHAINS.

Survey commenced June 20, 1904, and executed with a Young and sons light mountain transit No 5705, with a Smiths solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the meridian at Huron, found correct, and was approved by the surveyor general for South Dakota, June 10, 1904.

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

At a point, about 30 chs. N.W. of the old cor. of Tps. 34 and 35 N, Rs. 44 and 45 W, and about 2 chs

Railway W. bdy. of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

NW. of the dugout house of Chas. Westover; lat. 42° 58' N, long 102° 33' W.; At 4h 50m p.m., l.m.t., I set off 42° 58' on the lat. arc; 23° 28' N. on the decl. arc; and mark the meridian thus determined with the solar on a plug firmly driven in the ground, 5 chs. N. of this point.

This point chosen for establishing a meridian, as being the nearest available, suitable, position to the old Tp. cor.

June 20, 1904.

June 21: At 1h 32.3m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions; and mark the line thus determined, on a stake firmly driven, 5 chs. N. of my station.

At 6h 50m a.m., l.m.t., I lay off the azimuth of Polaris 1° 39' to the W., and mark the meridian thus determined, on the plug driven June 20, on which the meridian agrees with the mark

Railway W. bdy. of Township 35 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

determined by the solar.

At 7h 0m a.m., l.m.t., I set off 42° 58' on the lat. arc; 23° 28' N. on the decl. arc, and find this meridian determined with the solar, falls 0.2 ins. W. of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively agreeing, and 0' 11" west of the meridian established by the Polaris observations; therefore I conclude that the adjustments ~~of the instrument~~ are satisfactory.

The magnetic bearing of the meridian at 7h 10m a.m., l.m.t., is N. 14° 13' E.; the angle thus determined, gives the mean mag decl. 14° 8' E.

From the S. plug of my established meridian, the old cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., bears S. 30° 4' E.; therefore

I place my instrument over the cor.

Resurvey of W. bdy. of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

of Tps. 34 and 35 N., Rs. 44 and 45 W., which is a sandstone 8x10x6 ins above ground, marked and witnessed as described by the surveyor general, direct the telescope at a flag placed at the plug at S. end of established meridian, turn 30°4' to the right and

run

North,

retracing the W. bdy. of T. 35 N., R. 44 W.; at 40.55 chs. fall 13 lks. E. of the 1/4 sec. cor.; and at 80.26 chs. fall 210 lks. W. of the cor. of secs. 25, 30, 31, and 36; therefore I continue the line North, finding no part of this bdy. within 21' of a cardinal course; at 226.83 chs. intersect the N. bdy. of the state 5.92 chs. W. of the closing cor. of Ts. 35 N., Rs. 44 and 45 W.

9:30 A.M. June 21, 1904.

Resurvey of W. bdy. of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

June 24: At 3h 0m p.m., l.m.t., at the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W.; I set off 42°58' on the lat. arc, 23°26' N. on the decl. arc; and determine a meridian with the solar.

Thence I run

South,

retracing the W. bdy. of T. 34 N., R. 44 W.; at 40.45 chs. fall 60 lks. E. of the 1/4 sec. cor.; and, at 80.47 chs. fall 108 lks. E. of the cor. of secs. 1, 6, 7, and 12; therefore I continue the line South; at 174.13 chs. fall 137 lks. E. of the closing cor. of Tps. 34 N., Rs. 44 and 45 W., on S. bdy. of Pine Ridge Indian Reservation in Nebraska, which is a sandstone 15x4x5 ins. above ground marked and witnessed as described by the surveyor general.

June 24, 1904.

The falling of the random N. bdy. of T. 34 N., R. 45 W., as recorded in book C. of surveys executed under this contract, obliges the

Resurvey of W. bdy. of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

repositioning of the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., so as to permit of the establishment of the said N. bdy. of T. 34 N., of R. 45 W., and of the N. bdy. of T. 34 N., R. 44 W., on courses within the prescribed limits. The total difference in latitude, bet. the established closing cor. of Ts. 34 and 35 N., R. 44 W., and the closing cor. of Ts. 34 and 35 N. of R. 45 W., is 444 lks.; the dist. bet. these cors. being 10 miles, 1.42 chs. A line run on a direct course between the said closing cor. as would intersect the range line 185 lks. S. of the present position of the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W. The length of the frac. W. bdy. of T. 34 N., R. 44 W. is 174.13 chs., which, less 1.85 chs. is 172.28 chs. or 2 miles and 12.28 chs. I therefore proceed to resurvey the line North, through Tps. 34 and 35 N., with a length of 12.28 chs. between ~~the~~ frac. ~~of~~ secs. 13 and

Resurvey of W. bdy. of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

18,—all being in accordance with special instructions issued me with this contract.

June 26: from the closing cor. of Tps. 34 N., Rs. 44 and 45 W., on S. bdy. of Pine Ridge Indian Reservation in Nebraska already described,

I run

North,

bet. frac. secs. 13 and 18.

Over broken hilly land.

12.28 Set a sandstone 24×20×3 ins., 18 ins in the ground for cor. of secs. 7, 12, 13, and 18, marked with 4 notches on S. and 2 notches on N. edges: dig pits, 22×22×12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, W. of cor.

From this cor, the old cor., (which was this same sandstone) bears N. 36° 50' W., 120 lks. dist., I remove all trans of the old cor.

Land, broken hilly.

Soil, sandy clay loam; 2" rate.

Resurvey of W. bdy. of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

North,
bet. secs. 7 and 12.
Over hilly land.
37.00 From this point a cabin bears E., 5 chs. dist.
40.00 Set a sandstone 16×8×4 ins., 11 ins. in the ground for 1/4 sec. cor., marked 1/4 on W. face; dig pits, 22×22×12 ins., N. and S. of stone, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, W. of cor.
From this cor. the old 1/4 sec. cor., (which was the same sandstone,) bears N. 7° 52' W., 124 lks. dist. I remove all traces of the old cor.
43.00 Leave hilly land, bears N.E. and S.W.; thence, over dry level bottom land.
54.00 From this point the cabin of Wm. Schafer bears E., 4 chs. dist.
54.30 White Clay creek, 15 lks. wide, 6 ins. deep, course E., moderate current. A fringe of brush and timber along banks.
74.80 White Clay creek, 12 lks. wide, 1 ft. deep, course N.W.; thence, through scattering timber and dense undergrowth, bear N.W. and S.E.

Resurvey of W. bdy. of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

80.00 Set an ash post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 1, 6, 7, and 12, marked
T34N S6 on N.E.,
R44W S7 on S.E.,
S12 on S.W., and
R45W S1 on N.W. face; with 5 notches on S. and 1 notch on N. edge: from which
A box-elder, 6 ins. diam., bears N. 33° E., 171 lks. dist., marked T34N R44W S6 B.T.
An ash, 6 ins. diam., bears S. 28° 10' E., 191 lks. dist., marked T34N R44W S7 B.T.
A box-elder, 10 ins. diam., bears S. 35° W., 63 lks. dist., marked T34N R45W S12 B.T.
A box-elder, 9 ins. diam., bears N. 41° W., 87 lks. dist., marked T34N R45W S1 B.T.
From this cor., the old sec. cor., which was a stone, almost decomposed bears N. 11° 52' E., 141 lks. dist. I destroy all traces of the old cor. OK
Land, hilly and level.

Resurvey of W. bdy. Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Soil, sandy clay loam; 2nd rate.
Timber, boxelder, ash, and elm;
undergrowth the same and plum.
Dense undergrowth, 5.20 chs.

North,
bet. secs. 1 and 6,
Over level bottom land, through
scattering timber and dense undergrowth
4.40 White Clay creek, 12 lks. wide, 18 ins.
deep, course SE.,
4.60 Leave timber, undergrowth, and level bottom,
bear NW. and SE.; and asc. 40 ft. to
11.50 High bottom, bears W. and SE. From
this point the cabin of W. Babbie
bears W., 3 chs. dist.
40.00 Set a sandstone 26x7x5 ins., 20 ins. in
the ground for 1/4 sec. cor., marked 1/4
on W. face; dig pits, 22x22x12 ins,
N. and S. of stone, 3 ft. dist.; and raise
a mound of earth, 3½ ft. base, 2
ft. high, W. of cor.
From this cor., the old 1/4 sec. cor., which
was a sandstone, broken off, bears
N. 28° 49' E., 160 lks. dist., I destroy

Resurvey of W. bdy. Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

all traces of the old cor.
Thence descend 40 ft., bears NW. and
SE., to
50.00 Foot of descent, thence open level bottom
land, through dense undergrowth and
scattering timber, bear NW. and SE.
52.60 White Clay creek, 20 lks. wide, 1 ft. deep,
course NW.; moderate current.
80.00 Set a sandstone 18x10x8 ins., 12 ins. in
the ground for cor. of Tps. 34 and 35
N., Rs. 44 and 45 W., marked with 6
notches on each edge; dig pits 28x
28x12 ins., N., E., and W. 3 ft. and S. of
stone, 8 ft. dist.; and raise a mound
of earth, 6 ft. base, 3 ft. high, S. of cor.
In E. pit drive an elm stake, 2 ft. long, 3
ins. sq., 12 ins. in the ground, marked
T35N S31 on NE.,
R44W S6 on SE.,
T34N S1 on SW., and
R45W S36 on NW. face; with 6
notches on each edge.
No trees for bearing trees.
From this cor., the old Tp. cor., (which
was the same sandstone), bears N. 36° OK
31' E., 230 lks. dist. I remove all

Resurvey W. Bdy. of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

traces of the old cor.
Land, level.
Soil, sandy clay loam; 2" rate.
Timber, box-elder, elm and ash:
undergrowth the same and plum
cherry and willow.
Dense undergrowth, 34.60 chs.

Resurvey W. Bdy T. 35 N. R. 44 W

From the Tp. cor. as last above described,
I run

North,

bet. secs. 31 and 36.

Over dry level bottom land, through
scattering timber and undergrowth.

14.00 From this point, Court Deering's house
bears E., 5 chs. dist.

15.00 White Clay creek, 15 lks. wide, 2 ft. deep,
course E., slow current.

25.30 White Clay creek, 25 lks. wide 8 ins. deep,
course NW.

40.00 Set an ash post, 3 ft. long, 5 ins. sq., with
marked stone, 24 ins. in the ground,
for 1/4 sec. cor., marked 1/4 S 36 on W.,
and 31 on E. face; from which
A box-elder, 10 ins. diam., bears S. 15° 10' E.,

Resurvey of W. Bdy of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

113 lks. dist., marked 1/4 S 31 B.T.
An elm, 10 ins. diam., bears N. 21° 20'
W., 140 lks. dist., marked 1/4 S 36 B.T.
From this cor., the old 1/4 sec. cor., which
was a mound, with pits, bears N. 27°
20' E., 270 lks. dist. I destroy all
trace of the old cor.

46.00 Leave bottom land, timber and undergrowth,
bear NW. and SE.; thence, over rolling
land.

55.00 Drain, 150 lks. wide, 3 ft. deep, course NW.

63.20 Wagon trail, bears NW. and SE.

80.00 Set a sandstone 20 x 12 x 4 ins., 15 ins. in
the ground for cor. of secs. 25, 30, 31, and
36; marked with 1 notch on S. and 5
notches on N. edge: dig pits, 22 x 22 x
12 ins., in each sec., 5 1/2 ft. dist.;
and raise a mound of earth, 4 1/2 ft.
base, 2 ft. high, W. of cor.
From this cor. the old sec. cor., (which was
the same sandstone), bears N. 58° 42' E.,
406 lks. dist. I remove all traces of
the old cor.
Land, level and rolling.
Soil, sandy clay loam; 2" rate.
Timber, box-elder, ash and elm; undergrowth the same.

Resurvey of W. Bdy. of Township 35 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

North,
bet. secs. 25 and 30.
Over rolling land.

17.50 Ravine, 130 lks. wide, 40 ft. deep, course NW.

19.00 Leave rolling land, thence, over level bottom land, through scattering timber and dense undergrowth, bear NE. and SW.

19.70 White Clay creek, 15 lks. wide, 14 ins. deep, course NE., moderate current.

34.00 White Clay creek, 20 lks. wide, 10 ins. deep, course NW., swift current.

34.50 Leave bottom-land, timber and undergrowth, bears NW. and SE.; thence, over gently rolling land.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 25 on W. and 30 on E. face.

From this cor., the old 1/4 sec. cor., which is a mound and pits, bears N. 67° 45' E., 602 lks. dist. I destroy all traces

Resurvey of W. Bdy. of Township 35 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

of the old cor.

49.00 From this point the frame house of Chas. Nines bears E., 8 chs. dist.

70.00 Mail road from Rushville Nebr. to Pine Ridge South Dakota, bears NE. and SW.

79.30 Telephone line, from Rushville Nebr. to Pine Ridge South Dakota, bears NE. and SW.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 19, 24, 25, and 30; dig pits, 22x22x12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In SE. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T 35 N S 19 on NE.,
R 44 W S 30 on SE.,
S 25 on SW., and
R 45 W S 24 on NW. face; with 2 notches on S. and 4 notches on N. edge.

From this cor. the old sec. cor., which is a mound of earth with pits, bears N. 67° 45' E., 602 lks. dist. I destroy all traces of the old cor.

Land, rolling and level.

Soil, sandy clay loam; 2nd rate.

Resurvey of W. bdy. of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Timber, ash, elm, and boxelder; undergrowth the same and plum.

Dense undergrowth, 15.50 chs.

P.R.I.Res. North,

bet. secs. 19 and 24.

Over gently rolling land.

10.00 From this point the house of Wm. Jacobs bears E., 18 chs. dist.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x 22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In S. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 24 on W. and 19 on E. face.

From this cor. the old 1/4 sec. cor, which is a mound of earth, with pits bears N. 69°37' E., 700 lks. dist., & destroy all traces of the old cor.

68.68 Intersect the N. bdy. of the state, 4.32 chs. S. 89°55' E., of the 148 mile monument on interstate bdy. W., of the initial point, which is a quartzite stone

Resurvey of W. bdy. of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and R48 N. on E. face.

Deposit a marked stone 12 ins. in the ground for closing cor. of secs. Tns. 35 N., Rs. 44 and 45 W.; dig pits 35 x 28 x12 ins., crosswise on each line, S., E., and W. of cor., 5 ft. dist.; and raise a mound of earth, 6 ft. base, 3 ft. high, over deposit.

In E. pit drive an elm stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

CCT35N on S.,

SD on N.,

R44WS19 on E., and

R45WS24 on W. face; with 6 grooves on E. and W. and 3 grooves on S. face

From this cor. the position of the old closing cor., is N. 89°56' E., 7.29 chs. dist. I destroyed this cor. and restored it as the 1 mile post on the bdy. of the Pine Ridge Indian Reservation, on June 21, 1904, as recorded in book B of surveys executed under this contract.

Land, gently rolling.

Soil, sandy clay loam; 2" rate.

10 A.M., June 26, 1904.

Resurvey of W. bdy. Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

I next test the adjustments of the solar by an observation, on a meridian established from Polaris observations, and find them correct, at the point near the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W. on June 27, 1904, as recorded in field notes of subdivision of T. 35 N., R. 44 W., book D of surveys executed under this contract.

George W. Bates.
U.S. Deputy Surveyor.

Township Range

West of the th Principal Meridian.

CHAINS.

Township Range

West of the th Principal Meridian

CHAINS.

LIST OF NAMES.

A list of the names of the individuals employed by George W. Bates U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the re survey of the W. bdys. of the unsubdivided portions of Tps. 34 and 35 N., R. 44

West of the 6th Principal meridian in ~~South Dakota~~ Nebraska, showing the respective capacities in which they acted:

James W. Dawson.	chainman.
Charles H. Townsend.	chainman.
Carlos G. Bates.	moundman.
James L. Wilson.	flagman.

18

No 56
90

FINAL OATHS OF ASSISTANTS.

We hereby certify that we assisted George W. Bates, U. S. Deputy Surveyor, in re surveying all those parts or portions of the W. bdy. of the unsurveyed portion of Tps. 34 and 35 N., R. 44

West of the 6" Principal meridian, ~~South Dakota~~ Nebraska, as represented in the foregoing field notes as having been re surveyed by him and under his direction; and that said re survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor-General for South Dakota.

James L. Wilson flagman
James W. Dawson Chainman.
Charles H Townsend "
Carlos G. Bates, mounduman

Subscribed and sworn to before me this 5th day of July, 1904

A P Patterson
Noty Public.

27
91

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, George W. Bates, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from Frank A. Morris, U. S. Surveyor-General for South Dakota, bearing date of the 30" day of April, 1904 I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, re surveyed all those parts or portions of the West bdy. of the unsubdivided portion of Tps. 34 and 35 N., R. 44

West of the 6" Principal meridian, in ~~South Dakota~~ Nebraska, which are represented in the foregoing field notes as having been re surveyed by me and under my directions; and I do further solemnly swear that all the corners of said re 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 South Dakota, and in the specific manner described in the field notes, and that the foregoing are the true field notes of such re survey; and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.

George W. Bates.
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 23 day of July, 1904

W L Dawson
Co Clerk

28
92

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., FEB. 9, 1905. ~~190~~

The foregoing field notes ~~of the survey of~~ comprised in one book lettered "A" of the resurvey of the west boundaries of Tps 34 and 35, N., R. 44, west

of the 6th principal meridian, in Nebraska, ~~South Dakota,~~ executed by George W. Bates under his contract No. 158, dated April 30, 1904. ~~190~~ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

[signature]
Surveyor-General.
for South Dakota.

2926b150-2-02

TRANS. R. L. W. Comp. B. & S.

No 3 ✗ ✓ RH 1
93

Book "C".

FIELD NOTES

OF THE SURVEY OF

a portion
of
the North bdys.
of
T. 34 N., in
Rs. 44 and 45
West of the 6" Principal Meridian,

IN THE STATE OF ~~SOUTH DAKOTA~~ NEBRASKA.

As surveyed by George W. Bates
United States Deputy Surveyor.

Under his contract No. 158

Dated April 30", 1904

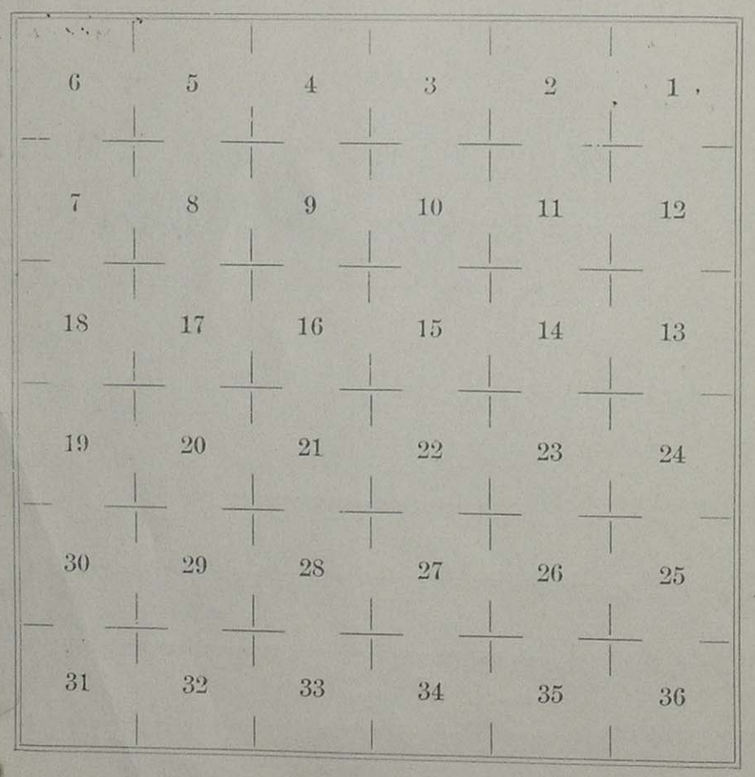
Survey commenced June 25", 1904

Survey completed June 27", 1904

NAMES AND DUTIES OF ASSISTANTS.

James W. Dawson.	chainman
Charles H. Townsend	chainman.
Carlos G. Bates.	moundman.
James L. Wilson.	flagman.

INDEX DIAGRAM. Tp. ..... R. .....



PRELIMINARY OATHS OF ASSISTANTS.

WE, James W. Dawson and Charles H. Townsend

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground and plumb the tally pins either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the unsurveyed portions of the north boundary of township 34 north, through ranges 44 and 45 West of the 6th Principal Meridian, Neb.

James W. Dawson, Chainman.
Charles H Townsend, Chainman.
....., Chainman.
....., Chainman.

Subscribed and sworn to before me this 21 day of June, 1904

F. E. McDougal
NOTARY PUBLIC, Shannon Co., S.D.
MY TERM EXPIRES NOV. 8TH, 1905.

PRELIMINARY OATHS OF ASSISTANTS.

~~We~~, I. Carlos G. Bates

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen and axmen in the establishment of corners and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of the unsurveyed portions of the N. bdy. of T. 34 N., through Rs. 44 and 45 W. of the 6" Principal Meridian, Neb.

Carlos G. Bates, Moundman.

, Moundman.

, Axman.

, Axman.

Subscribed and sworn to before me this 21 day of June, 1904

F. E. McIntyre

NOTARY PUBLIC, Shannon Co., S.D.

MY TERM EXPIRES NOV. 8TH, 1905.

I, James L. Wilson, do solemnly swear that I will well and truly perform the duties of flagman, according to instructions given me, to the best of my skill and ability, in the survey of the unsurveyed portions of the N. bdy. of T. 34 N., through Rs. 44 and 45 W. of the 6" Principal Meridian, Neb.

James L. Wilson, Flagman.

Subscribed and sworn to before me this 21 day of June, 1904

F. E. McIntyre

NOTARY PUBLIC, Shannon Co., S.D.

MY TERM EXPIRES NOV. 8TH, 1905.

2930b100-2-02

North bdy. of Township 34 N. Ranges 44 and 45

West of the Sixth th Principal Meridian.

CHAINS.

Survey commenced June 25, 1904, and executed with a Young and Son's light mountain transit, No. 5705, with a Smiths solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Huron, found correct, and was approved by the Surveyor general for South Dakota, June 10, 1904.

I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from a solar observation, with a meridian determined by observations on Polaris, I proceed as follows:

At the point, about 30.00 chs. N. 30°4'W. of the old cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., where I established

a meridian by Polaris observations on June 21, 1904, as recorded in field notes of resurvey of the W. bdy. of Tps. 34 and 35 N., of R. 44 W., book A. of surveys executed under this contract; lat. 42°58' N., long. 102° 33' W.; at 8h 15m a.m., l.m.t., I set off 42°58' on the lat. arc. 23°25' N. on the decl. arc, and find the meridian thus determined with the solar, practically agrees with the meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

I last tested the adjustments of the solar, on this same meridian established by Polaris observations, by p.m. and a.m. observations on June 20 and 21, 1904, and found all adjustments satisfactory, as fully recorded in book A. of surveys executed under this contract.

The magnetic bearing of the meridian at 8h 15m a.m. l.m.t. is N. 14°13' W.; the angle thus determined, gives the mean mag. decl. 14°8' E. as before.

From a point, 1.37 chs. West of the old cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., (this point being on line North of closing cor. of Tps. 34 N., of Rs. 44 and 45 W., as determined by random retracement line, run this day;) I run

East

on a random line along the N. bdy of T. 34 N. of R. 44 W., setting temp. 1/4 sec. and sec. cors. at intervals of 40.00 chs, and, at 408.93 chs. intersect the E. bdy. of the Pine Ridge Indian Reservation in Nebraska 0.42 chs. S. of the established closing cor. of secs. 1 and 36 on the line bet. Tps. 34 and 35 N., of R. 44 W., which is a sandstone 10x4x5 ins. above ground marked M R. CC on E. with 6 grooves on N. + S. sides.

June 25: at this closing cor.; I set off 23°24' N. on the decl. arc, and, at 0h 27m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 42°57', which is about 0.5 less than the proper lat.

North bdys of Township 34 N. Ranges 44 and 45

West of the Sixth th Principal Meridian.

CHAINS.

From the point 1.37 chs. W. of the old cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., I run

West,

on a random line along the N. bdy. of Tp. 34 N., R. 45 W., setting temp. 1/4 sec. and sec. cors. at intervals of 40.00 chs., and, at 392.49 chs., intersect the W. bdy. of the Pine Ridge Indian Reservation in Nebraska, 4.02 chs. N. of the established closing cor. of secs. 5 and 32, on the line bet. Tps. 34 and 35 N., of R. 45 W., which is a sandstone 4×12×8 ins. above ground, marked CCMR on W., with 6 grooves on N. and S. sides.

June 25, 1904.

June 26; The falling of the random line through R. 45 precludes the use of the old cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., in its latitudinal position. Therefore I reestablish the range line with the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., so

North bdys of Township 34 N. Ranges 44 and 45

West of the Six th Principal Meridian.

CHAINS.

positioned as to be on line bet. the closing cors. of the Tp. lines hereinbefore described, said position being 1.85 chs. S. of the initial point of the random Tp. lines: this being fully reported in field notes of resurvey of Tp. bdys., book A. of surveys executed under this contract.

The falling of the random lines answers to a correction of 44.4 lks. or 0°19' N. ~~per mile~~ counting from the NW. cor. of Tp. 34 N. of R. 44 W., & the closing cor. of secs. 1 and 36, Tps. 34 and 35 N., R. 44 W., therefore:

From the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., this day reestablished, (in latitude 42°58', and long. 101°33') I run

N. 89°41' E.,

bet. secs. 6 and 31.

Over rolling land, bears N. and S.

2.60 Cultivated field, bears N. 4 chs. and S. 6 chs.

5.60 Leave field, bears N. and S.

12.50 Bottom of ravine, 100 lks. wide, 20 ft.

North bdy. of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

dep, course NW.; leave rolling land; thence, over mountainous land, bears NW. and S.; asc. 150 ft.

13.00 Wagon trail, bears N. and S.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x 22x12 ins., E. and W. of cor. 4 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit. In E. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S31 on N. and 6 on S. face.

54.00 Top of ridge and wagon trail, bear NW. and SE.; desc. 50 ft. ±

65.50 Bottom of ravine, 40 lks. wide, course N., scattering brush along ravine; asc. 50 ft.

70.00 Top of ridge, bears N. and S.; desc. 120 ft.

80.00 Set an elm post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 5, 6, 31, and 32, marked

T35N S32 on NE,
R44W S5 on SE,
T34N S6 on SW, and
S31 on NW. face; with 5 notches on E, and 1 notch on W. edge;

North bdy. of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

from which

A cottonwood, 26 ins. diam., bears N. 10° E., 35 lks. dist.; marked T35N R 44W S32 BT.

An elm, 7 ins. diam., bears S. 50° E., 13 lks. dist., marked T34N R 44W S5 BT.

A pine, 12 ins. diam., bears S. 33° W., 70 lks. dist., marked T34N R. 44W S6 BT.

A pine, 16 ins. diam., bears N. 68° W., 47 lks. dist.; marked T35 N R44W S31 BT.

This cor. is on W. edge of bottom of ravine 90 lks. wide, course NW, timber scattered along ravine.

Land, rolling and mountainous.

Soil, sandy clay loam; 2" rate.

Timber, pine, elm and cottonwood; brush, plum and elm.

Mountainous land, 67.50 chs.

N. 89° 41' E.,
bet. secs. 5 and 32.

Over mountainous land, through

North bdy. of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

scattering pine timber, asc. 170 ft. to
16.00 Top of ridge, bears N. and S.; leave timber, bears N. and S.; desc. 80 ft. to
22.70 Wagon trail, bears N. and S.; in bottom of ravine, 60 lks. wide, course N.; asc. 100 ft. to
38.00 Point of ridge, bears S.; desc. 200 ft.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22 x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 32 on N. and 5 on S. face.

June 26: At this 1/4 sec. cor.; I set off 23°22' N. on the decl. arc; and, at 0h 2.6 p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 42°58', which is about 0.5 greater than the proper lat.
Continue descent.
44.00 Enter scattering pine timber, bears N. and S.
56.00 Bottom of ravine, 30 lks. wide, course

North bdy. of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

NE., asc. 100 ft. to
60.80 Point of ridge, bears S., desc. 80 ft. to
63.30 Bottom of ravine, 20 lks. wide, course N.; asc. 120 ft. to
70.00 Top of ridge, bears NW. and SE.; desc. 100 ft. to
74.00 Bottom of ravine, 20 lks. wide, course NW.; asc. 100 ft. to
80.00 Set an ash post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked
T 35 N S 33 on NE.,
R 44 W S 4 on SE.,
T 34 N S 5 on SW., and
S 32 on NW. face; with 4 notches on E. and 2 notches on W. edge: from which
A pine, 16 ins. diam., bears N. 54°30' E., 142 lks. dist., marked T 35 N R 44 W S 33 BT.
A pine, 15 ins. diam., bears S. 50°30' E., 65 lks. dist., marked T 34 N R 44 W S 4 BT.
A pine, 17 ins. diam., bears S. 34°20' W., 91 lks. dist., marked T 34 N

North bdy. of Township 34 Range 44

West of the Sixth Principal Meridian.

CHAINS.

R. 44 W S 5 B T.
A pine, 6 ins. diam., bears N. 5°5' W, 215 lks. dist., marked T 35 N R 44 W S 32 B T.
Land, mountainous.
Soil, sandy clay loam; 2" rate
Timber, pine.
Mountainous land, 80.00 chs.

N. 89°41' E.,
bet. secs. 4 and 33.
Over mountainous land, through scattering pine timber, asc. 20 ft. to
4.00 Top of ridge, bears N., NW., and SW., desc. 200 ft. to
19.00 Bottom of ravine, 10 lks. wide, course NE., asc. 160 ft. to
27.00 Top of ridge, bears N. and S., desc. 160 ft. to
30.00 Bottom of ravine, 20 lks. wide, course N., leave timber, bears N. and S.; asc. 175 ft. to
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22×22×4 ins. 4 ft. E., and 22×22×12 ins., 4 ft. W. of cor., and raise a mound of

North bdy. of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

earth, 3 ft. base, 1½ ft. high, over deposit.
In W. pit, drive an elm stake, 2 ft. long, 3" ins. sq., 12 ins. in the ground, marked 1/4 S 33 on N. and 4 on S. face.
Further depth of E. pit impossible on account of solid stone. Stake put in W. pit for same reason.
This 1/4 sec. cor. is on point of ridge, bears S., pine timber on ridge, 12 chs. S. of line; desc. 160 ft.
57.20 From this point a log cabin bears N. 2.50 chs. dist.
60.00 Mouth of ravine, 20 lks. wide, from S.
61.00 Foot of descent, leave mountainous land, bears NW and SE.; thence over rough bottom land, through dense undergrowth.
67.00 Springs in bed of Patten Creek, 2.70 chs. N. of this point.
68.00 Mouth of ravine, 20 lks. wide, from S E.
76.50 Dry bed of Patten Creek, 10 lks. wide, 2 ft. deep, course NW.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 3, 4, 33, and 34; dig pits 22×22×12 ins., in each

North bdy. of Township 34 N. Range 4 4

West of the Sixth Principal Meridian.

CHAINS.

sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit, drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T35N S34 on N.E.,
R44W S3 on S.E.,
T34N S4 on S.W., and
S33 on N.W. face; with 3 notches on E. and W. edges.

No trees within limits suitable for bearing trees.

Land, mountainous and broken bottom.

Soil, sandy clay loam; 2" rate.

Timber, pine; undergrowth, elm, ash, plum, and cherry.

Mountainous land or dense undergrowth, 80.00 chs.

N. 89° 41' E.,
bet. secs. 3 and 34.

Over broken mountainous land, bears N.W. & S.W.

2.20 Mouth of ravine, 30 lks. wide, from N.

North bdy. of Township 34 N. Range 4 4

West of the Sixth Principal Meridian.

CHAINS.

4.00 Patten Creek, dry, 10 lks. wide, 3 ft. deep, course S.W.

16.10 Patten Creek, dry, 15 lks. wide, 3 ft. deep, course N.W.

31.00 Bottom of ravine, 10 lks. wide, 70 ft. deep, course S.W.; thence asc.

40.00 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits 22×22×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked ¼ S34 on N. and 3 on S. face.

50.00 Enter scattering pine timber, bears N. and S.

58.00 Top of stony ridge, bears N. and S., 230 ft. above ravine W.; desc 200 ft. to

69.50 Bottom of ravine, 20 lks. wide, course S.; asc. 200 ft. to

80.00 Set a sandstone 20×14×5 ins., 15 ins. in the ground for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on E. and 4 notches on W. edge, from which
A pine, 5 ins. diam., bears N. 29° 30' E., 74 lks. dist., marked

North bdy. of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

T35NR44WS35BT.

A pine, 10 ins. diam, bears S. 40°50' E., 70 lks. dist, marked T34NR44WS2BT.

A pine, 10 ins. diam., bears S. 74° 30' W., 29 lks. dist, marked T34NR44WS3BT.

A pine, 11 ins. diam. bears N. 27° 45' W., 65 lks. dist, marked T35NR44WS34BT.

Land, mountainous.

Soil, sandy clay loam, 2nd rate.

Timber, pine.

Mountainous land, 80.00 chs.

N. 89°41' E.,

bet. secs. 2 and 35.

Over mountainous land, through scattering pine timber; asc. 60 ft.

2.00 Leave timber, bears N. and S.

20.00 Top of ascent, leave mountainous land, bears N. and S.; thence, over rolling land.

39.50 Wagon trail, bears N. and S.

40.00 Deposit a marked stone 12 ins. in the

North bdy. of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

ground for 1/4 sec. cor.; dig pits 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit. In E. pit drive an elm stake, 2 ft long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 35 on N. and 2 on S. face.

50.00 Leave rolling land; thence over mountainous land, bears NE. and SW.; desc. 140 ft. to

63.50 Bottom of ravine, 40 lks. wide, course S.; asc. 80 ft. to

69.50 Top of ridge, bears N. and S. desc. 70 ft. to

76.50 Bottom of ravine, 30 lks. wide, course S.; asc 70 ft. to

79.50 Top of ridge, bears N. & S.; desc. 10 ft. to

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 1, 2, 35, and 36; dig pits, 22x22x12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit. In SE. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T35NS36 on NE,

R44WS1 on SE,

T34NS2 on SW, and

North bdy. of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

S 35 on N W. face, with 1 notch on E. and 5 notches on W. edge.

No suitable bearing trees within limits.

Land, mountainous and rolling.

Soil, sandy clay loam, 2" rate.

Timber, pine.

Mountainous land, 50.00 chs.

N. 89° 41' E.,

bet. frac. secs. 1 and 36.

Over mountainous land, desc. 70 ft. to

2.50 Bottom of ravine, 5 lks. wide, course S.; asc. 80 ft. to

8.93 The closing cor. of secs. 1 and 36, T. 34 and 35 N., R. 44 W.; already described. This cor. stone is badly cracked and weather worn, and the marks are practically obliterated, and the stone is broken in two. I therefore destroy the stone and restore the cor. in the same place as follows:

Set an ash post, 3 ft. long, 5 ins. sq., with marked stone 24 ins. in the ground for closing cor. of secs. 1 and 36, Tps. 34 and 35 N., R. 44 W., marked C CPLR 44 W on E.

North bdy. of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

U.S.L.R. on W.,

T 35 N S 36 on N, and

T 34 N S 1 on S face, with 6 grooves on N. and S. and 1 groove on E. face; dig pits 18 x 24 x 12 ins. crosswise on each line, N. and S. 3 ft. and E. of post, 8 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Mountainous land, 8.93 chs.

June 26, 1904.

Boundaries of frac. T. 34 N. R. 44 W.

Latitudes, departures and closing errors.

Lines designated	True bearings.	Distance	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
		chs.	chs.	chs.	chs.	chs.
* 8" mile Reserve bdy.	S. 0° 25' W.	14.67		14.67		0.11
9" to 10" mile ~~Reserve bdy.~~	S. 0° 12' W.	161.10		161.10		0.56
11" mile ~~Reserve bdy.~~	N. 89° 57' W.	79.95	0.08			79.95
12", 13", 14" to 15" miles ~~Reserve bdy.~~	N. 89° 56' W.	321.24	0.40			321.24
16" mile ~~Reserve bdy.~~	N. 89° 54' W.	7.26	0.01			7.26
** W. bdy. frac. T. 34 N. R. 44 W.	North.	172.28	172.28			
N. bdy. frac. T. 34 N. R. 44 W.	N. 89° 41' E.	408.93	2.27		408.93	
Convergency.					0.21	
Totals.			175.04	175.77	409.14	409.12
				175.04	409.12	
Errors in lat. and dep.				0.73	0.02	

* These values found on retracement of Reserve bdy. book B of surveys executed under this contract.

** This value found on resurvey of W. bdy. of Tp., book

Boundaries of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

A of surveys executed under this contract.

General Description.

The surface of this frac. Tp. is uniformly rugged and broken, except for the narrow valleys of Larabee and White Clay creeks in the western part. The soil is a sandy clay loam, good 2" rate, except in the roughest hills where there is much soft friable stone. There is considerable pine timber in the hills and deciduous timber in the valleys. Water is plentiful in streams and springs. There are a few settlers along the streams.

Boundaries of frac. Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

Latitudes departures and closing errors.

Lines designated.	True bearings.	Distances	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
		chs.	chs.	chs.	chs.	chs.
*6" and 7" mile Res. bdy.	S. 0° 11' W.	161.00		161.00		0.52
*8" mile Res. bdy.	S. 0° 25' W.	65.66		65.66		0.47
S. bdy. fract. T. 35 N. R. 44 W.	S. 89° 41' W.	408.93		2.27		408.93
** W. bdy. fract. T. 35 N., R. 44 W.	North	228.68	228.68			
*148" mile state bdy.	S. 89° 55' E.	75.03		0.10	75.03	
*147" mile state bdy.	N. 89° 58' E.	80.18	0.05		80.18	
*146" mile state bdy.	N. 89° 54½' E.	79.73	0.13		79.73	
*145" mile state bdy.	S. 89° 50' E.	79.83		0.23	79.83	
*144" mile state bdy.	S. 89° 54' E.	79.50		0.02	79.50	
*143" mile state bdy.	N. 89° 52½' E.	14.82	0.03		14.82	
Convergency.					0.29	
Totals.			228.89	229.28	409.38	409.92
				228.89		409.38
Errors in lat. and dep.				0.39		0.54

* These values found on retracement of Reserve bdy., book B of surveys executed under this contract.

** This value found on resurvey of W. bdy. of Tp., book A of surveys executed under this contract.

Bdys. of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

General Description.

The surface of this frac. Tp. varies from very rough and broken in the southeast part to nearly level in the northwest. The soil is a sandy clay loam, 2" rate, and well covered with grasses. There is pine timber in the hills and ash, elm, box-elder and cottonwood timber along the creeks. The township is well watered by Patten and White Clay creeks. There are several settlers along the valleys.

North bdy. of Township 34 N., Range 45
West of the Sixth Principal Meridian.

CHAINS.

The falling of the random line answers to a correction of 0°19' or 44.4 lks. S. per mile, counting from the newly reestablished Cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., to the N.W. cor. of frac. Tp. 34 N., of R. 45 W., therefore.

From the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., which I reestablished June 26, 1904. (in latitude 42°58'. and longitude 102° 33' W) I run S. 89° 41' W.,

bet. secs. 1 and 36.

Over low, level bottom land, through scattering timber and dense undergrowth, bear N. and S.

6.50 White Clay creek, 30 lks. wide, 18 ins. deep, course NE., moderate current, sandy bottom, banks steep, 4 ft. high.

12.20 Leave level low bottom, timber and undergrowth, bear N. and S.; asc 30 ft. ☆

13.00 Top of ascent, bears N. and S.; thence, over high level bottom land.

24.10 Mail road, from Rushville Nebr. to Pine Ridge So. Dak., bears N. and S.

North bdy. of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

31.10 Telephone line from Rushville Nebr. & Pine Ridge So. Dak., bears N. and S.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 36 on N. and 1 on S. face.

46.00 Leave level land, bears N. and S.; thence over hilly land.

80.00 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for cor. of secs. 1, 2, 35 and 36, marked

T35N S36 on NE.
R45W S1 on SE.,
T34N S2 on SW., and
S35 on NW. face, with 1 notch on E. and 5 notches on W. edge;

dig pits 22 x 22 x 12 ins. in each sec., 5½ ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, W. of cor.

Land, level and hilly.

Soil, sandy clay loam; 2" rate.

North bdy. of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

Timber, ash, elm, cottonwood and willow; undergrowth the same and plum.

Dense undergrowth, 12.20 chs.

S. 89° 41' W.

bet. secs. 2 and 35.

Over rolling hilly land.

32.00 Point of soft-stony ridge, bears NE.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 35 on N. and 2 on S. face.

48.50 Drain, 50 lks. wide, 4 ft. deep, course NW.; thence, asc. 120 ft. ±

66.00 Top of ridge; bears N. and S.; leave hilly land; thence over mountainous land, bears N. and S.; desc. 120 ft. ±

72.00 Bottom of ravine, 100 lks. wide, course N. a few elms along ravine bottom; asc. 60 ft. ±

80.00 Deposit a marked stone 12 ins. in the

North bdy. of Township 34 N., Range 45
West of the Sixth Principal Meridian.

CHAINS.

ground for cor. of secs. 2, 3, 34 and 35; dig pits, 22×22×12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.
In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T35N S35 on N.E.,
R45W S2 on S.E.,
T.34N S3 on S.W., and
S34 on N.W. face; with 2 notches on E. and 4 notches on W. edge.
Land, hilly and mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, a few elms.
Mountainous land, 14.00 chs.

S. 89°41' W.,
bet. secs. 3 and 34.
Over mountainous land, asc. 70 ft. ±
5.00 Top of ridge, bears N. and S.; desc. 130 ft. ±
16.50 Bottom of ravine, 100 lks. wide, course NW.; a few elms along ravine bottom.
21.80 Bottom of ravine, 50 lks. wide, course N.; heavy elm timber in ravine, 30 chs. S. of line; asc. 120 ft. ±

North bdy. of Township 34 N., Range 45
West of the Sixth Principal Meridian.

CHAINS.

29.00 Top of ridge, bears N. and S.; desc. 140 ft. ±
36.50 Wagon trail, bears N. and S.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22×22×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S34 on N. and 3 on S. face.
46.00 From this point a cabin bears S. 4 chs. dist.
47.40 Spring branch course N., in bottom of ravine, 60 lks. wide, course N.; timber 1.00 chs. S. of line; asc. 140 ft. ±
64.00 Top of ridge, bears N. and S., desc. 60 ft. ±
73.00 Bottom of ravine, 20 lks. wide, course N.; asc. 60 ft. ±
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 3, 4, 33, and 34; dig pits 22×22×12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.
In S.E. pit drive an ash stake 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T.35N S34 on N.E.,
R45W S3 on S.E.,

North bdy. of Township 34 N., Range 45
West of the Sixth Principal Meridian.

CHAINS.

T34N S4 on SW, and
S33 on NW. face; with 3 notches
on E. and W. edges.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, a few elms.
Mountainous land, 80.00 chs.

S. 89°41' W,
bet. secs. 4 and 33.
Over mountainous land, asc. 20 ft. &
3.00 Top of ridge, bears N. and S.; desc. 100 ft. &
14.00 Bottom of ravine, 40 lks. wide, course N.; asc. 140 ft. &
34.00 Point of ridge, bears S., desc. 125 ft.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22×22×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 33 on N. and 4 on S. face.
44.00 Bottom of ravine, 100 lks. wide, course N.; asc. 120 ft. &

North bdy. of Township 34 N., Range 45
West of the Sixth Principal Meridian.

CHAINS.

50.00 Point of ridge, bears S.; desc. 140 ft. &
59.00 Foot of descent, leave mountainous land, bears NE. and SW.; thence over dry level bottom land through scattering timber and dense undergrowth, bear NE. and SW.
61.80 From this point the dugout of J. Wilson bears N., 3.60 chs. dist.
68.00 Craven Creek, 4 lks. wide, 3 ins. deep, course NE., swift current, banks steep, 10 ft. high; large elm timber along banks.
76.50 Leave level bottom, scattering timber and dense undergrowth, bear NE. and SW.; thence over mountainous land, bears N. and SW.; asc. 70 ft. &
80.00 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 4, 5, 32, and 33, marked
T35N S33 on NE.,
R45W S4 on SE.,
T34N S5 on SW., and
S32 on NW. face; with 4 notches on E. and 2 notches on W. edge;
dig pits, 22×22×12 ins., in each sec.,

North bdy. of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

5½ ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, W. of cor.
Land, mountainous and level.
Soil, sandy clay loam; 2" rate.
Timber, elm, box elder, ash, and cottonwood; undergrowth the same and plum.
Mountainous land or dense undergrowth, 80.00 chs.

S. 89° 41' W.,
bet. frac. secs. 5 and 32.
Over hilly land, bears N.W. and S.W.

2.00 From this point, a cabin bears N., 7 chs. dist.

18.50 Drain, 40 lks. wide, 2 ft. deep, course S.E.

40.00 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits 22×22×12 ins. E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked ¼ S 32 on N. and 5 on S. face.

43.50 Bottom of ravine, 200 lks. wide, 60 ft. deep, course S.E.

North bdy. of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

72.49 The closing cor. of secs. 5 and 32, Tps. 34 and 35 N., R. 45 W., hereinbefore described.
Land, hilly.
Soil, sandy clay loam; 2" rate.
9 A.M.; June 27, 1904.

Boundaries of frac. T. 34 N., R. 45 W.

Latitudes, departures and closing errors.

Lines designated	True bearing	Distance	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		chs.	chs.	chs.	chs.	chs.
E. bdy. frac T. 34 N., R. 45 W.	South	172.28		172.28		
16" mile Res. bdy.	N. 89° 54' W.	73.80	0.14			73.80
17" mile Res. bdy.	N. 89° 44' W.	80.00	0.37			80.00
18" mile Res. bdy.	N. 89° 44' W.	80.00	0.37			80.00
19" mile Res. bdy.	N. 89° 43' W.	79.94	0.40			79.94
20" mile Res. bdy.	N. 89° 43' W.	79.94	0.40			79.94
21" mile Res. bdy.	N. 0° 27' E.	80.20	80.20		0.63	
22" mile Res. bdy.	N. 0° 25' E.	80.46	80.46		0.58	
23" mile Res. bdy.	N. 0° 25' E.	8.12	8.12		0.06	
N. bdy. frac T. 34 N., R. 45 W.	N. 89° 41' E.	392.49	2.17		392.49	
Convergency					0.19	
Totals.			172.63	172.28	393.95	393.68
			172.28		393.68	
Errors in lat. and dep.			0.35		0.27	

frac. Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

*This course and length found on resurvey of this boundary, Book A of surveys executed under this contract.

**These values found on retracement and resurvey of Reservation bdy, book B. of surveys executed under this contract.

General Description.

The land along the southern part of this frac. Tp. is extremely rough, almost impassable ridges, covered with pine timber and capped with a soft sand-rock. The northern part is rough and broken but without timber. Water is found running in several ravines along the north boundary. The soil is a sandy clay loam, 2" rate, and is well covered with grasses.

Boundaries of frac. Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

Latitudes, departures and closing errors.

Lines designated.	True bearings.	Distances.	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
* E. bdy. frac. T. 35 N. R. 45 W.	SOUTH.	chs. 228.68	chs.	chs. 228.68	chs.	chs.
S. bdy. frac. T. 35 N., R. 45 W.	S. 89° 41' W.	392.49		2.17		392.49
** 23rd mile Res. bdy.	N. 0° 25' E.	72.34	72.34		0.52	
24th mile Res. bdy.	N. 0° 24' E.	80.19	80.19		0.56	
25th mile Res. bdy.	N. 0° 16' E.	79.02	79.02		0.37	
153rd mile State bdy.	S. 89° 44' E.	67.99		0.31	67.99	
152nd mile State bdy.	N. 89° 54½' E.	79.51	0.01		79.51	
151st mile State bdy.	S. 89° 56' E.	79.54		0.09	79.54	
150th mile State bdy.	S. 89° 56' E.	79.72		0.09	79.72	
149th mile State bdy.	S. 89° 42½' E.	79.01		0.40	79.01	
** 148th mile State bdy.	S. 89° 55' E.	4.32		0.01	4.32	
Convergency.					0.27	
Totals.			231.56	231.75	391.81	392.49
				231.56		391.81
Errors in lat. and dep.				0.19		0.68

*This value found on resurvey of this bdy., Book A of surveys executed under this contract.

**These values found on retracement and resurvey of Reservation boundary, book B. of surveys executed under this contract.

fractional Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

General Description.

The surface of this Tp. varies from hilly and broken in the Southwest to rolling and level in the Northeast. The soil is all sandy clay loam, good 2" rate, and is well covered with grasses. There is some timber along Craven and White Clay creeks which water the frac. Tp. well.

Settlers are scattered along the creek bottoms and smoother land.

I next test the adjustments of the solar on the meridian established from observations on Polaris near the cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., on July 1 and 2, 1904, and find all adjustments correct; as recorded in field notes of subdivision of T. 35 N., R. 45 W., book F. ✓

North half of the Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

of surveys executed under this contract.

George N. Bates.
U.S. Deputy Surveyor.

Township ..... Range .....

West of the ..... th Principal Meridian.

CHAINS.

Township ..... Range .....

West of the ..... th Principal Meridian.

CHAINS.

Township ..... Range .....

West of the ..... th Principal Meridian.

CHAINS.

LIST OF NAMES.

A list of the names of the individuals employed by George W. Bates U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the unsurveyed portions of the North bdy. of T. 34 N., Rs. 44 and 45

~~West~~ East of the Sixth Principal meridian in Nebraska ~~South Dakota~~, showing the respective capacities in which they acted:

James W. Dawson chainman
Charles H. Townsend chainman
Carlos G. Bates moundman
James L. Wilson flagman.

FINAL OATHS OF ASSISTANTS.

WE HEREBY CERTIFY that we assisted George W. Bates, U. S. Deputy Surveyor, in surveying all those parts or portions of the unsurveyed portions of the North boundary of Tp. 34 North, through Ranges 44 and 45

West of the 6" Principal meridian, ~~South Dakota~~ Nebraska, as represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor-General for South Dakota.

James L. Wilson flagman
James W. Dawson, Chainman.
Charles H Townsend " "
Carlos G. Bates, monumentman

Subscribed and sworn to before me this 5 day of July, 1904

C. Patterson
Notary Public

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, George W. Bates, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from Frank A. Morris, U. S. Surveyor-General for South Dakota, bearing date of the 30" day of April, 1904 I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, surveyed all those parts or portions of the unsurveyed portions of the North bdy of Tp. 34 North, through Ranges 44 and 45

West of the 6" Principal meridian, in ~~South Dakota~~ Nebraska, which are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the manual of surveying instructions and the special written instructions of the U. S. Surveyor-General for South Dakota, and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.

George W. Bates
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 23 day of July, 1904

W. L. Dawson
Co. Clerk

40d
136

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., FEB. 9, 1905, ~~, 190~~

The foregoing field notes ~~of the survey of~~ comprised in one book lettered "C" of the survey of the unsurveyed portions of the north boundary of T.34 N., Rs.44 and 45, west

of the 6th principal meridian, in ~~South Dakota,~~ Nebraska, executed by George W. Bates, under his contract No. 158, dated April 30, 1904, ~~, 190~~ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

Surveyor-General.
for South Dakota

2926b150-2-02

TRANS.
R. L. W.
COMP. B & S.

No. 4 Ex ✓ R.H. 1
137

Book "E".

FIELD NOTES

OF THE SURVEY OF

the
subdivision lines
of
T. 34 N.,
of R 44
West of the 6" Principal Meridian,

IN THE STATE OF ~~SOUTH DAKOTA~~ NEBRASKA.

As surveyed by George W. Bates.
United States Deputy Surveyor.

Under his contract No. 158

Dated April 30", 190~~4~~

Survey commenced June 30", 190~~4~~

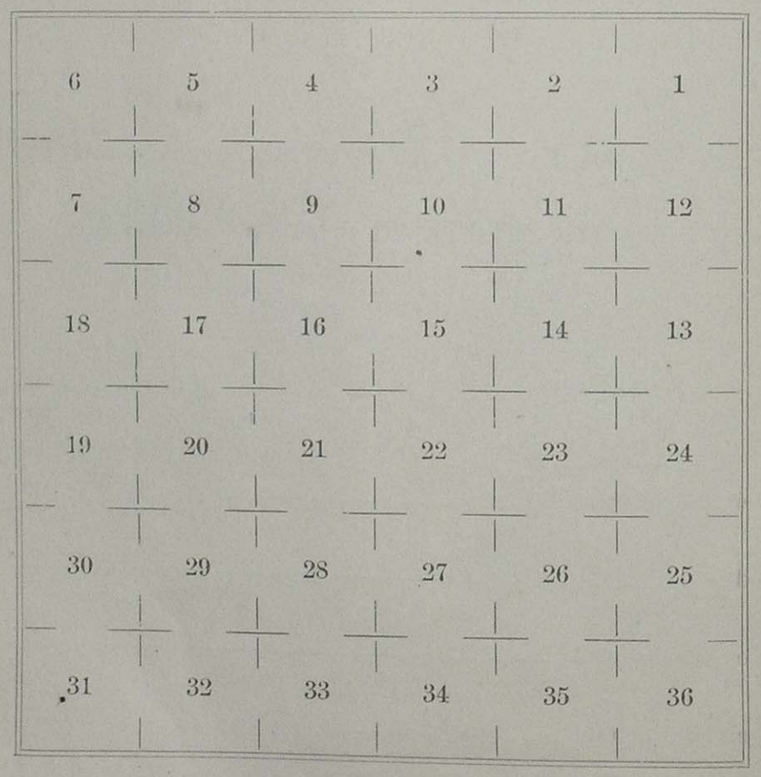
Survey completed July 1", 190~~4~~

K

NAMES AND DUTIES OF ASSISTANTS.

James W. Dawson. chainman.
Charles H. Townsend. chainman.
Carlos G. Bates. moundman.
James L. Wilson flagman.

INDEX DIAGRAM. Tp. ..... R. .....



PRELIMINARY OATHS OF ASSISTANTS.

We. .....

.....

.....

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

the survey of the .....

The preliminary oaths of assistants covering the field notes of this T.34 N., R.44 W. are with the field notes of T.35 N. R.44 W., book D of surveys executed under this contract.

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this ..... day of ....., 190...

.....

.....

PRELIMINARY OATHS OF ASSISTANTS.

We, ...

.....

.....

do solemnly swear that we will well and truly perform the duties of moundmen 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 .....

.....

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this ..... day of ....., 190....

.....

.....

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

.....

....., *Flagman.*

Subscribed and sworn to before me this ..... day of ....., 190....

.....

.....

2930b100-2-02

Subdivision of Township 34 N. Range 44
West of the Sixth Principal Meridian.

CHAINS.

Survey commenced June 30, 1904, and executed with a Young and Sons light mountain transit No 5705, with a Smiths solar attachment. The instrument is provided with two double verniers, placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the meridian at Huron, found correct, and was approved by the surveyor general for South Dakota, June 30, 1904.

I examine the adjustments of the transit and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications, resulting from a solar observation, with a meridian established from observations on Polaris; I proceed as follows:

At the point, about 30.00 chs. N. 30° 4' W, of the old cor. of Tps. 34 and 35 N, Rs 44 and 45 W, where I established a

meridian by Polaris observations on June 21, 1904, as recorded in field notes of resurvey of Tp. bdys. book A of surveys executed under this contract; at 6h 20m a.m. l.m.t., I set off 42°58' on the lat. arc; 23°13' N. on the decl. arc, and find the meridian thus determined with the solar practically agrees with the meridian established by the Polaris observations: therefore, I conclude that the adjustments of the instrument are satisfactory.

I last tested the adjustments of the solar by p.m. and a.m. observations on this same, meridian established by Polaris observations on June 20, and 21, 1904, and found all adjustments satisfactory, as fully recorded in book A of surveys executed under this contract.

The magnetic bearing of the meridian at 6h 30m a.m. is N. 14°14' W.; the angle thus determined gives the mean mag. decl. 14°10' E. at the Tp. cor.

Under this contract I reestablished the W. bdy. of this frac. Tp., the course of which is North, on June 26, 1904; and I established the N. bdy. of the frac. Tp., the course of which is S. 89°41' W., on June 26, 1904.

Acting under special instructions issued me with this contract I proceed to subdivide this partial Tp., from the north, and from the west, according to the method given in the Manual of Instructions.

Whenever the words "Pine Ridge Indian Reservation" appear in these notes, reference is made to that portion of it which is in Nebraska, as defined by the act of March 2, 1889.

I commence at the cor. of secs. 5, 6, 31, and 32, on N. bdy. of Tp., which I established June 26, 1904; ~~lat. 42° 57'.5 N., long. 102°32' W.~~

Thence I run

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

S. 0° 1' W.,

bet. secs. 5 and 6.

Over mountainous land, asc. 170 ft. to

16.00 Top of ridge, bears N. W. and S. E.,

30.00 Wagon trail on top of ridge, bears E. and W.; desc.

37.00 Bottom of ravine, 40 lks. wide, course SW.,

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 6 on W. and 5 on E. face.

49.00 Bottom of same ravine, 50 lks. wide, course SW., from NW. and NE.

60.00 Same ravine, course S E.

71.00 Same ravine, course SW.; 150 ft. below wagon trail, asc. 40 ft. to

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 5, 6, 7, and 8; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4 1/2 ft. base, 2 ft. high, over deposit.

In SE. pit drive an ash stake, 2 ft. long, 3

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

ins. sq., 12 ins. in the ground, marked
T 34 N S 5 on NE.,
R 44 W S 8 on S E.,
S 7 on SW., and
S 6 on NW. face; with 5 notches on S. and E. edges.

Leave mountainous land bears S E. and SW.

Land, mountainous.

Soil, sandy clay loam; 2" rate

Mountainous land, 80.00 chs.

S. 89° 41' W.,

on a random line bet. secs. 6 and 7.

40.00 Set temp. 1/4 sec. cor.

80.04 Intersect W. bdy. of Tp., 19 lks. N. of cor. of secs. 1, 6, 7, and 12, which I reestablished June 26, 1904.

Thence I run

N. 89° 33' E.,

on a true line bet. secs. 6 and 7.

Over level low bottom land, through dense undergrowth and scattering timber.

2.90 White Clay creek, 10 lks. wide, 16 ins. deep, course S E., good current, banks 5 ft. high

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

22.60 White Clay creek, 10 lks. wide, 10 ins. deep, course N.; asc. 40 ft. ↑

23.60 Top of bank, leave undergrowth and timber, bear N. and S.; thence, over high, level bottom.

34.50 Enter dense undergrowth and scattering timber, bear N. and S.; desc. 40 ft. ↓

36.10 Larabee creek, 10 lks. wide, 6 ins. deep, course NE.; thence over low, level, dry, bottom land.

40.02 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins., E. and W. of cor., 4 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked 1/4 S 6 on N. and 7 on S. face.

From the cor.

An Elm, 7 ins. diam., bears N. 10° E., 35 lks. dist., marked 1/4 S 6 B.T.

An Elm, 8 ins. diam., bears S. 69° W., 153 lks. dist., marked 1/4 S 7 B.T.

43.70 Larabee creek, 8 lks. wide, 10 ins. deep, course S.

46.60 Larabee creek, 8 lks. wide, 6 ins. deep,

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

course N.

61.00 Leave level bottom, timber, and undergrowth, bear NW. and SE.; thence, over mountainous land, bears NW. and SE., asc. 150 ft. ↑

68.00 Point of ridge, bears N.; desc. 140 ft. ↓

71.70 Bottom of ravine, 60 lks. wide, course S.; asc. 50 ft. ↑

80.04 The cor. of secs. 5, 6, 7, and 8.

Land, level and mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, box-elder, cottonwood, elm, ash, and willow; undergrowth, buffaloberry, plum, cherry and grape.

Mountainous land or dense undergrowth, 69.14 chs.

S. 0° 1' W.,

bet. secs. 7 and 8.

Over hilly land, desc. 70 ft. ↓

31.70 Foot of descent, leave hilly land; thence, over level bottom land, through dense undergrowth and scattering timber, bear E. and W.

32.25 Larabee creek, 6 lks. wide, 10 ins. deep,

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

course W.

38.25 Larabee creek, 10 lks. wide, 10 ins. deep, course S.E.

40.00 Set an elm post, 3 ft. long, 3 ins. sq., with marked stone, 24 ins. in the ground for 1/4 sec. cor., marked 1/4 S 7 on W. and 8 on E. face; from which
An elm, 25 ins. diam., bears S. 62° 30' E. 11 lks. dist., marked 1/4 S 8 B T
A boulder, 14 ins. diam., bears S. 25° 30' W. 36 lks. dist., marked 1/4 S 7 B T.

40.60 Larabee creek, 15 lks. wide, 6 ins. deep, course S.W.

44.00 Leave level bottom, timber and undergrowth, bear E. and W.; thence, over hilly land, asc. 100 ft.

49.00 Wagon trail, bears E. and W.

66.00 Point of ridge, bears S.W.; leave hilly land; thence, over mountainous land, bears E. and W.; desc. 90 ft. ±

72.50 Bottom of ravine, 70 lks. wide, course N.E.; asc. 100 ft. ±

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 7, 8, 17, and 18; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth,

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

4½ ft. base, 2 ft. high, over deposit.
In S.E. pit drive an elm stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T 34 N S 8 on N E.,
R 44 W S 17 on S E.,
S 18 on S W., and
S 7 on N W. face; with 4 notches on S. and 5 notches on E. edge.

Land, hilly, level, and mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, elm, box-elder and ash; undergrowth the same and plum.
Mountainous land or dense undergrowth, 26.30 chs.

S. 89° 33' W.
on a random line bet. secs. 7 and 18.

40.00 Set temp. 1/4 sec. cor.

80.20 Intersect W. bdy. of Tp. at the cor. of secs. 7, 12, 13, and 18, which I reestablished June 26, 1904.

Thence I run

N. 89° 33' E.
on a true line bet. secs. 7 and 18.
Over mountainous land, asc. 170 ft. ±

CHAINS.

17.00 Top of ridge, bears N. and S., a few pines along ridge; disc. 180 ft. to
34.80 Bottom of ravine, 300 lks. wide, course N.; asc. 140 ft.
40.10 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked 1/4 S 7 on N. and 18 on S. face.
46.60 Top of ridge, bears N. and S.; a few pines along ridge: disc. 140 ft. to
54.50 Bottom of ravine, 100 lks. wide, course N.; asc. 120 ft. to
67.00 Top of ridge, bears N. and S.; disc. 110 ft. to
75.60 Bottom of ravine, 30 lks. wide, course N.; asc. 50 ft. to
80.20 The cor. of secs. 7, 8, 17, and 18.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, a few pines.
Mountainous land, 80.20 chs.

CHAINS.

S. 0° 1' W.,
on bdy. frac. secs. 17 and 18.
Over mountainous land, asc. 50 ft. to
12.85 Intersect the S. bdy. of the Pine Ridge Indian Reservation, 7.39 chs. N. 89° 56' W. of the 15 mile post, which I restored June 22, 1904.
Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 17 and 18; dig pits, 28x22x12 ins., crosswise on each line, E., W., and N. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.
In W. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
CC T34N R44W on N.,
S17 on E.,
S18 on W., and
PL on S. face; with 5 grooves on E. and 1 groove on W. face.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Mountainous land, 12.85 chs.

From the cor. of secs. 4, 5, 32, and 33, on N. bdy. of Tp., which I established June 26, 1904.

I run

S. 0° 2' W.,

bet. secs. 4 and 5.

Over mountainous land, asc. 70 ft. through scattering pine timber to

10.00 Top of ridge, bears N.E. and S.W., thence along E. side of ridge

40.00 Set a sandstone 16×10×4 ins., 11 ins. in the ground for 1/4 Sec. cor., marked 1/4 on W. face; from which

A pine, 14 ins. diam., bears S. 60° 20' E., 220 lks. dist.; marked 1/4 S 4 B.T.

A pine, 24 ins. diam., bears N. 27° 30' W., 195 lks. dist., marked 1/4 S 5 B.T.

68.10 Wagon trail, bears E. and W.

70.00 Top of ridge bears N.W. and S.

80.00 Set a pine post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 4, 5, 8, and 9, marked

T 34 N S 4 on N.E.,
R 44 W S 9 on S.E.,
S 8 on S.W., and

S. 5 on N.W., face, with 5 notches on S. and 4 notches on E. edge;

from which

A Pine, 13 ins. diam., bears N. 0° 45' E., 291 lks. dist., marked T 34 N R 44 W S 4 B.T.

A pine, 12 ins. diam., bears S. 3° 15' E., 133 lks. dist., marked T 34 N R 44 W S 9 B.T.

A pine, 14 ins. diam., bears S. 68° 20' W., 124 lks. dist., marked T 34 N R 44 W S 8 B.T.

A pine, 11 ins. diam., bears N. 21° 10' W., 198 lks. dist., marked T 34 N.R. 44 W. S 5 B.T.

Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs.

S. 89° 41' W.,

on a random line bet. secs. 5 and 8.

40.00 Set temp. 1/4 sec. cor.

79.98 Intersect N. and S. line 14 lks. S. of cor. of secs. 5, 6, 7, and 8.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Thence Drum

✓ N. 89°49' E.,
on a true line bet. secs. 5 and 8.
Over mountainous land, asc. 200 ft. to
10.00 Point of ridge, bears N E.
14.00 Enter scattering pine timber, bears N. and S E.
28.00 Top of ridge, bears N. and S.; desc. 130 ft. to
32.60 Bottom of ravine, 20 lks. wide, course S.; asc. 140 ft. to
37.90 Top of ridge, bears N E. and S W.; desc. 140 ft.
39.99 Deposit a marked stone, 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 × 22 × 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 5 on N. and 8 on S. face.
From the cor.
A pine, 16 ins. diam., bears N. 62°30' W. 80 lks. dist., marked 1/4 S 5 B T.
A pine, 22 ins. diam., bears S. 16°35' E., 109 lks. dist., marked 1/4 S 8 B T.
41.80 Bottom of ravine, 5 lks. wide, course S W.; asc. 160 ft. to

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

54.60 Top of ridge, leave scattering and enter heavy pine timber, bears N E. and S W.; desc. 120 ft. to
66.60 Bottom of ravine, 5 lks. wide, course S.; asc. 180 ft. to
79.98 The cor. of secs. 4, 5, 8, and 9,
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 79.98 chs.

June 30: at the cor. of secs. 4, 5, 8, and 9; I set off 23°11' N. on the decl. arc; and, ✓ at 0h 3.4m p. m., l. m. t., observe the sun ✓ on the meridian; the resulting lat. is 42°57'; which is about 0.'3 greater ✓ than the proper lat.

S. 0°2' W.,
bet. secs. 8 and 9.
Over mountainous land, through scattering pine timber, desc. 300 ft.
27.00 Leave pine timber, bears N W. and S E.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 × 22

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

×12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground marked 1/4 S 8 on W. and 9 on E. face.

72.00 Bottom of ravine, 20 lks. wide, course SW.; scattering pines along ravine, asc. 75 ft. to

80.00 Deposit a marked stone 12 ins. in the ground, for cor. of secs. 8, 9, 16, and 17; dig pits, 22×22×12 ins. in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In SE. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins in the ground, marked
T34N S 9 on N E.,
R44W S 16 on S E.,
S 17 on S W., and
S 8 on N W. face, with 4 notches on S. and E. edges. From the cor.

a pine, 11 ins. diam., bears S. 34°45' W., 82 lks. dist., marked T34N R44W S16 B.T.

a pine, 22 ins. diam., bears N. 83°15' W., 16 lks. dist., marked T34N. R44W S 8 B.T.

No other trees for bearing trees.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 80.00 chs.

S. 89°49' W.,
on a random line bet. secs. 8 and 17.

40.00 Set temp. 1/4 sec. cor.

80.10 Intersect N. and S. line 9 lks. N. of cor. of secs. 7, 8, 17, and 18.

Thence I run

N. 89°45' E.,
on a true line bet. secs. 8 and 17.

Over mountainous land, desc. 140 ft. to

33.00 Bottom of ravine, 20 lks. wide course NE.; scattering pines along ravine; asc. 50 ft. to

38.00 Point of ridge, bears S.; desc. 60 ft.

40.05 Deposit a marked stone, 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22×22×12 ins, E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

CHAINS.

base, 2 ft. high, over deposit.
Dig E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 8 on N., and 17 on S. face.
Thence the cor.
A cottonwood, 18 ins. diam., bears N. 20° E., 138 lks. dist., marked 1/4 S 8 B T.
No other trees for bearing trees.
44.00 Foot of descent, leave mountainous land, bears N.W. and S.E.; thence, over level bottom land, through dense undergrowth and scattering timber.
45.00 Larabee creek, 10 lks. wide, 8 ins. deep, course N.W.
76.50 Bend of Larabee creek, course S.W., comes from S.E.; and mouth of ravine, comes from N.; Leave bottom and timber and undergrowth, bear N.W. and S.E.; asc. 60 ft. over mountainous land, &
80.10 The cor. of secs. 8, 9, 16, and 17.
Land, mountainous and level.
Soil, sandy clay loam; 2nd rate.
Timber, elm, ash, cottonwood and box-elder; undergrowth, plum, buffalo-berry and cherry.

CHAINS.

Mountainous land or dense undergrowth, 80.10 chs.

S. 0° 2' W.
on bet. frac. secs. 16 and 17.
Over mountainous land, desc. 70 ft. &
9.00 Foot of descent, leave mountainous land, bears E. and W.; thence, over level bottom land, through scattering timber and undergrowth.
11.80 Larabee creek, 16 lks. wide, 18 ins. deep, course W.
13.30 Intersect S. bdy. of Pine Ridge Indian Reservation 7.52 chs. N. 89° 56' W. of the 14 mile cor. on Reservation bdy., which I restored June 22, 1904.
Set an ash post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for closing cor. of frac. secs. 16 and 17, marked
C C T34N R44W on N.,
P L on S.,
S16 on E., and
S17 on W. face, with 4 grooves on E., and 2 grooves on W. face; from which

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

A box elder, 14 ins. diam., bears N. 40° W., 12 lks. dist., marked C C T 34 N R 44 W S 17 B T.

A box elder, 10 ins. diam., bears N. 26° 30' E., 76 lks. dist., marked C C T 34 N R 44 W S 16 B T.

Land, mountainous and level.

Soil, sandy clay loam; 2nd rate.

Timber, elm; undergrowth, plum.

Mountainous land, 9.00 chs.

From the cor. of secs. 3, 4, 33, and 34, on N. bdy. of Tp., which I established June 26, 1904.

I run

S. 0° 2' W.,

bet. secs. 3 and 4.

Over mountainous land, desc. 15 ft. to

2.50 Dry bed of Patten Creek, 10 lks. wide, 1 ft. deep, course W.; asc. 120 ft. to

10.00 Point of ridge, bears S E.; desc. 110 ft. to

23.00 Bottom of ravine, 20 lks. wide, course N W.; scattering pines along ravine, asc. 160 ft.

40.00 Deposit a marked stone, 12 ins. in the

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins. N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S. 4 on W. and 3 on E. face.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 3, 4, 9, and 10; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4 1/2 ft. base, 2 ft. high, over deposit.

In S E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 34 N S 3 on N E.,

R 44 W S 10 on S E.,

S 9 on S W., and

S 4 on N W. face, with 5 notches on S., and 3 notches on E. edge.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 80.00 chs.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

S. 89° 41' W.,
on a random line bet. secs. 4 and 9.
40.00 Set temp. 1/4 sec. cor.
80.14 Intersect N. and S. line 21 lks. N. of cor. of secs. 4, 5, 8, and 9.
Thence run
N. 89° 32' E.,
on a true line bet. secs. 4 and 9.
Over mountainous land, desc. 120 ft.
5.60 Wagon trail, bears NW. and SE.
13.30 Bottom of ravine, 20 lks. wide, course N.; scattering pines along ravine; asc. 120 ft. ±
21.00 Top of ridge, bears N. and S.; desc. 140 ft.
40.07 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22×22×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 4 on N. and 9 on S. face.
45.50 Bottom of ravine, 30 lks. wide, course N.; asc. 75 ft. ±
52.00 Point of ridge, bears S.; desc. 100 ft. ±
59.00 Bottom of ravine, 50 lks. wide, course NW.;

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

scattering pines along ravine, asc. 170 ft. ±
70.00 Top of ridge, bears NW. and SE.; desc. 50 ft. ±
80.14 The cor. of secs. 3, 4, 9, and 10.
Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, pine.
Mountainous land, 80.14 chs.

S. 0° 2' W.,
bet. secs. 9 and 10.
Over mountainous land, ascend along E. side of ridge.
40.00 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22×22×12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 9 on W. and 10 on E. face.
45.00 Top of ascent, ridge, bears E. and W.; 125 ft. above sec. cor. N.; desc. 170 ft.
46.25 Wagon trail, bears E. and W.
67.00 Bottom of ravine, 15 lks. wide, course SW.;

Subdivision of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

scattering pines along ravine.

71.50 Bottom of ravine, 40 lks. wide, course W.; scattering pines along ravine; asc. 120 ft. to

77.00 Top of ridge, bears N.E. and S.W.; disc. 50 ft. to

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 9, 10, 15, and 16; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 34 N S 10 on N.E.,
R 44 W S 15 on S.E.,
S 16 on S.W., and
S 9 on N.W. face; with 4 notches on S. and 3 notches on E. edge.

Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, pine.
Mountainous land, 80.00 chs.

June 30, 1904.

Subdivision of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

S. 89° 32' W.,
on a random line bet. secs. 9 and 16.

40.00 Set temp. ¼ sec. cor.

80.16 Intersect N. and S. line 4 lks. N. of cor. of secs. 8, 9, 16, and 17.

Thence 2 mm

✓ N. 89° 30' E.,
on a true line bet. secs. 9 and 16.

Over mountainous land, asc. 180 ft.

25.00 Ravine, bottom 5 lks. wide, 70 ft. deep, course S.; scattering pines along ravine.

40.08 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits, 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked ¼ S 9 on N., and 16 on S. face.

42.00 Top of ascent, ridge, bears N. and S.; disc. 170 ft.

49.00 Ravine, bottom 20 lks. wide, 60 ft. deep, course S.; scattering pines along ravine.

62.10 Bottom of ravine, 40 lks. wide, course S.; scattering pines along ravine; asc. 200 ft. to

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

77.00 Point of ridge, bears NE.; disc. 40 ft. to
80.16 The cor. of secs. 9, 10, 15, and 16.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.16 chs.

S. 0° 2' W.,
on a true line bet. frac. secs. 15 and 16.
Over mountainous land, desc. 70 ft. to
6.00 Bottom of ravine, 40 lks. wide, course SW.; asc. 60 ft. to
11.00 Top of ridge, bears NE. and SW.; disc. 30 ft. through scattering pine timber to
13.81 Intersect the S. bdy. of the Pine Ridge Indian Reservation 7.44 chs. N. 89° 56' W. of the 13 mile post on the Reservation bdy., which I reestablished June 22, 1904.
Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 15 and 16; dig pits, 28 x 22 x 12 ins., crosswise on each line, N., E., and W. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

high, over deposit.
In W. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
C C T 34 N R 44 W on N.,
P L on S.,
S 16 on W., and
S 15 on E. face; with 3 grooves on E. and W. faces. From the cor.
A pine, 9 ins. diam., bears N. 39° 45' E., 274 lks. dist., marked C C T 34 N. R 44 W S 15 B T.,
A pine, 11 ins. diam., bears N. 6° 40' W., 143 lks. dist., marked C C T 34 N R 44 W S 16 B T.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 13.81 chs.

From the cor. of secs. 2, 3, 34 and 35, on N. bdy. of Tp., which I established June 26, 1904.

I run

S. 0° 3' W.,
bet. secs. 2 and 3.

Subdivision of Township 34N, Range 44

West of the Sixth Principal Meridian.

CHAINS.

Over mountainous land, through scattering pine timber.

4.00 Ridge, bears N E. and S W.; desc.

20.00 Ravine, 40 lks. wide, 30 ft. deep, course S W.

24.00 Point of ridge, bears N E.

27.40 Foot of desc. 200 ft. below ridge; dry bed of Patten creek, 10 lks. wide, 18 ins. deep, course W.; elm timber along banks: asc. 150 ft. to

36.00 Point of ridge, bears W.; desc. 110 ft.

40.00 Set a sandstone 24×13×3 ins., 18 ins. in the ground for 1/4 sec. cor., marked 1/4 on W. face; from which

A pine, 11 ins. diam., bears N. 6° 35' E. 306 lks. dist., marked 1/4 S 2 B T.

A pine, 12 ins. diam., bears N. 9° W., 225 lks. dist., marked 1/4 S 3 B T.

40.60 Bottom of ravine, 10 lks. wide, course N E.; asc. 200 ft.

45.00 Leave timber, bears N E. and S W.

59.00 Top of ridge, bears N W. and S E.; thence along W. slope.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 2, 3, 10, and 11; dig pits, 22×22×12 ins., in each sec., 4 ft. dist., and raise a mound of

Subdivision of Township 34N, Range 44

West of the Sixth Principal Meridian.

CHAINS.

earth, 4½ ft. base, 2 ft. high, over deposit

In S E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 34 N S 2 on N E.,

R 44 W S 11 on S E.,

S 10 on S W., and

S 3 on N W. face, with 5 notches on S. and 2 notches on E. edge.

Land, mountainous.

Soil, sandy clay loam; 2° rate.

Timber, pine and elm.

Mountainous land, 80.00 chs.

S. 89° 41' W.,

on a random line bet. secs. 3 and 10.

40.00 Set temp. 1/4 sec. cor.

80.30 Intersect N. and S. line 23 lks. N. of cor. of secs. 3, 4, 9, and 10.

Thence I run

✓ N. 89° 31' E.,

on a true line bet. secs. 3 and 10.

Over mountainous land, desc. 160 ft. to

8.40 Bottom of ravine, 15 lks. wide, course N.; scattering pines along ravine; asc. 160 ft. to

15.40 Point of ridge, bears S.; desc. 165 ft. to

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

25.40 Bottom of ravine, 30 lks. wide, course N.; scattering pines along ravine; asc. 220 ft.

40.15 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 3 on N. and 10 on S. face.

53.00 Top of ridge, bears N. and S.; desc. 80 ft. ±

59.00 Bottom of ravine, 20 lks. wide, course N.; asc. 60 ft. ±

66.00 Top of ridge, bears N. and S.; desc. 120 ft. ±

73.00 Bottom of ravine, 10 lks. wide, course N.; scattering pines along ravine; asc. 90 ft. ±

80.30 The cor. of secs. 2, 3, 10, and 11.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 80.30 chs.

S. 0° 3' W.,

bet. secs. 10 and 11.

Over mountainous land, asc. 180 ft. ±

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

26.50 Top of ridge, bears E. and W.; desc. 120 ft. ±

34.00 Bottom of ravine, 20 lks. wide, course W.; asc. 120 ft. ±

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 10 on W. and 11 on E. face.

This 1/4 sec. cor. is on point of ridge, bears E.

51.50 Ridge, bears N.W. and S.E.; desc. 200 ft. ±

64.00 Bottom of ravine, 30 lks. wide, course N.W.; scattering pines along ravine, asc. 180 ft. ±

78.50 Top of ridge, bears N.W. and S.E.; desc. 20 ft. ±

80.00 Deposit a marked stone 12 ins. in the ground, for cor. of secs. 10, 11, 14, and 15; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 34 N S 11 on N.E.,

R 44 W S 14 on S.E.,

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

S15 on SW., and
S10 on NW. face; with 4 notches on S. and 2 notches on E. face.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs.

S. 89°31' W.,
on a random line bet. secs. 10 and 15.

40.00 Set temp. 1/4 sec. cor.

80.26 Intersect N. and S. line 14 lks. N. of cor. of secs 9, 10, 15, and 16.

Thence I run

N. 89°25' E.,
on a true line bet. secs. 10 and 15.

Over mountainous land, through scattering pine timber, ascending.

36.50 Ridge, bears N. and S., thence over a succession of very steep ravines, 140 ft. deep, course S.

40.13 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 2 2x 22x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft.

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 10 on N. and 15 on S. face; From the cor.
A pine, 7 ins. diam., bears N. 74°40' E., 23 lks. dist., marked 1/4 S 10 B T.
A pine, 14 ins. diam., bears S. 6°30' W. 58 lks. dist., marked 1/4 S 15 B T.

57.80 Top of ascent, ridge bears NW. and SE., 250 ft. above sec. cor. W.; leave timber, bears NW. and SE., desc. 80 ft.

60.50 Wagon trail, bears NW. and SE.

61.75 Bottom of ravine, 20 lks. wide, course N.; asc. 70 ft. ±

66.00 Point of ridge, bears S.; desc. 100 ft. ±

70.00 Bottom of ravine, 30 lks. wide, course N.; asc. 120 ft. ±

80.26 The cor. of secs. 10, 11, 14, and 15.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.26 chs.

S. 0°3' W.,
" " bet. frac. secs. 14 and 15.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Over mountainous land, desc. 80 ft. ±

9.80 Bottom of ravine, 40 lks. wide, course NW.; asc. 60 ft.

13.40 Wagon trail, bears E. and W.

14.70 Intersect S. bdy. of Pine Ridge Indian Reservation, 7.67 chs. N. 89°56' W. of the 12 mile post on Reservation bdy. which I repaired June 22 1904. ✓

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 14 and 15; dig pits, 28 x 22 x 12 ins., crosswise on each line, N., E., and W., of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In W. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
CC T34N R44W on N.
PL on S.,
S 14 on E. and
S 15 on W. face; with 2 grooves on E. and 4 grooves on W. face.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Mountainous land, 14.70 chs.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

July 1; at this closing cor, I set off 23° 7' N. on the decl. arc; and, at 0h 3.6m p. m. l. m. t., observe the sun on the meridian: the resulting lat. is 42°56' which is about 0.4 greater than the proper lat. ✓

From the cor. of secs. 1, 2, 35, and 36, on N. bdy. of Tp., which I established June 26, 1904. ✓

I run

S. 0°4' W.,

bet. secs. 1 and 2.

Over mountainous land, through very scattering pine timber; desc. 170 ft. ±

7.30 Bottom of ravine, 40 lks. wide, course SW.; asc. 200 ft. ±

21.50 Top of ridge, bears NE. and SE. desc. 160 ft. ±

25.70 Bottom of ravine, 20 lks. wide, course NW.; asc. 200 ft.

40.00 Deposit a marked stone, 12 ins. in the ground for ¼ sec. cor.; dig pits, 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 2 on W. and 1 on E. face.

No trees near for bearing trees.

48.00 Top of ridge, bears E. and W.; disc. 100 ft. ±

52.00 Bottom of ravine, 40 lks. wide, course SW.; asc. 80 ft. ±

60.00 Point of ridge; bears E.; disc. 160 ft. ±

80.00 Set an elm post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 1, 2, 11, and 12, marked

T 34 N S 1 on NE.,
R 44 W S 12 on SE.,
S 11 on SW., and
S 2 on NW. face; with 5 notches on S. and 1 notch on E. edge; from which

A pine, 9 ins. diam., bears N. 7° 45' E., 36 lks. dist., marked T 34 N R 44 W S 1 B.T.

A pine, 8 ins. diam., bears S. 22° 30' E., 129 lks. dist., marked T 34 N R 44 W S 12 B.T.

An elm, 16 ins. diam., bears S. 16° W., 298 lks. dist., marked T 34 N R 44

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

W S 11 B.T.

A pine, 11 ins. diam., bears N. 71° 50' W., 260 lks. dist., marked T 34 N R 44 W S 2 B.T.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 80.00 chs.

S. 89° 41' W.,
on a random line bet. secs. 2 and 11.

40.00 Set temp. 1/4 sec. cor.

79.68 Intersect N. and S. line 9 lks. S. of cor. of secs. 2, 3, 10, and 11.

Thence I run

N. 89° 45' E.,
on a true line bet. secs. 2 and 11;

Over mountainous land, disc. 175 ft. ±

24.10 Bottom of ravine, 60 lks. wide, course N., scattering pines along ravine; asc. 160 ft. ±

38.00 Top of ridge, bears N. and S.; disc. 200 ft.

39.84 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.;

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

Dr. E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground marked ¼S 2 on N and 11 on S. face

59.50 Bottom of ravine, 20 lks. wide, 50 ft. deep, course N.

63.00 Same ravine, 100 lks. wide, 50 ft. deep, course N., comes from NW.

75.00 Foot of descent, Patten Creek, 4 lks. wide 1 inch deep, course NW., flows from spring 2 chs. SE. of this point, elm timber along banks; asc. 90 ft. to

79.68 The cor. of secs. 1, 2, 11, and 12.

Land, mountainous

Soil, sandy clay loam; 2nd rate.

Timber, pine and elm.

Mountainous land, 79.68 chs.

The position of the established closing cor. of secs. 1 and 12, on the Reservation bdy. admits of the possibility of connecting the said closing cor., and the cor. of secs. 1, 2, 11 and 12. therefore

Dmm

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

N. 89° 41' E.,

on a random line bet. frac. secs. 1 and 12

8.54 Intersect E. bdy. of Pine Ridge Indian Reservation 14.97 chs. N. 0° 12' E. of the 10 mile cor. on Reservation bdy. and which I restored June 22, 1904; and 15 lks. S. 0° 12' W. of the established closing cor. of secs. 1, and 12, from the E. This closing does not admit of a return course bet. established cors. within limits; therefore

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 1, and 12; dig pits, 28 x 28 x 12 ins., crosswise on each line, N., S., and W. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

Dr. S. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

CC T34N R44W on W.,

PL on E.,

S 1 on N and

S 12 on S face, with 1 groove on N. and 5 grooves on S. face,

Thence Dmm

Subdivision of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

S. 89° 41' W.,
on a true line bet. frac. secs. 1 and 12.
Over mountainous land, disc. 120 ft. ±
7.00 Bottom of ravine, 20 lks. wide, course SW.;
scattering pines along ravine; asc. 80 ft. ±
8.59 The cor. of secs. 1, 2, 11, and 12.
Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, pine.
Mountainous land, 8.59 chs.

S. 0° 4' W., from the cor. to secs. 1, 2, 11 & 12. Trav. bet. secs. 11 and 12.
Over mountainous land, through very
scattering pine timber disc. 80 ft. ±
3.90 Bottom of ravine, 20 lks. wide, course SW
7.10 Patten creek, water in pools, 10 lks. wide,
6 ins. deep, course W.; asc. 200 ft. ±
22.00 Point of ridge, bears S W.; disc. 175 ft. ±
40.00 Deposit a marked stone 12 ins. in the
ground, for 1/4 sec. cor.; dig pits, 22 x 22 x
12 ins., N. and S. of cor., 4 ft. dist.; and
raise a mound of earth, 3½ ft. base,
2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins.
sq., 12 ins. in the ground, marked 1/4
S 11 on W. and 12 on E. face.

Subdivision of Township 34 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

This 1/4 sec. cor., is in bottom of ravine,
30 lks. wide, course NE.; No trees
near for bearing trees; asc. 140 ft. ±
46.00 Point of ridge, bears E.; disc. 80 ft. ±
52.00 Bottom of ravine, 40 lks. wide, course NW.;
asc. 120 ft. ±
55.00 Point of ridge, bears S W.; disc. 100 ft. ±
65.40 Bottom of ravine, 20 lks. wide, course NE.;
asc. 170 ft. ±
80.00 Deposit a marked stone 12 ins. in the
ground, for cor. of secs. 11, 12, 13, and 14;
dig pits, 22 x 22 x 12 ins., in each sec.,
4 ft. dist.; and raise a mound of earth,
4½ ft. base, 2 ft. high, over deposit.
In S.E. pit drive an ash stake, 2 ft. long, 3
ins. sq., 12 ins. in the ground, marked
T 34 N S 12 on NE.,
R 44 W S 13 on S E.,
S 14 on SW. and
S 11 on N W. face; with 4 notches on S.,
and 1 notch on E. edge.
No trees for bearing trees.
Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, pine.
Mountainous land, 80.00 chs.

Subdivision of Township 34 N., Range 44

West of the th Principal Meridian.

CHAINS.

S. 89°45' W.,
on a random line bet. secs. 11, and 14.
40.00 Set temp. 1/4 sec. cor.
79.62 Intersect N. and S. line 35 lks. N. of the cor. of secs. 10, 11, 14, and 15.
Thence I run
N. 89°30' E.,
on a true line bet. secs. 11 and 14.
Over mountainous land, asc. 20 ft. to
2.00 Top of ridge, bears N.W. and S.E.; desc. 130 ft. to
13.30 Bottom of ravine, 40 lks. wide, course N.W.; asc. 150 ft. to
20.00 Top of ridge, bears N.W. and S.E., scattering pines along ridge: thence, over broken mountainous land.
33.00 Wagon trail, bears N.E. and S.W.
35.60 Wagon trail, bears N.W. and S.E.
39.81 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 11 on N. and 14 on S. face.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

43.40 Wagon trail, bears N.E. and S.W.
60.00 Top of ridge, bears N.E. and S.W.
64.00 Wagon trail, bears N.W. and S.E.
73.00 Bottom of ravine, 20 lks. wide, 80 ft. deep, course N.
79.62 The cor. of secs. 11, 12, 13, and 14.
Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, a few pines.
Mountainous land, 79.62 chs.

On retracement of E. bdy. of Pine Ridge Indian Reservation, book B of surveys executed under this contract, I found no closing cor. of secs. 12 and 13, from the E., therefore
From the cor. of secs. 11, 12, 13, and 14,
I run
N. 89°41' E.,
on a true line bet. frac. secs. 12 and 13.
Over broken mountainous land.
8.20 Intersect E. bdy. of Pine Ridge Indian Reservation 15.71 chs. N. 0°12' E., of the 11 mile cor. on Reservation bdy. which I repaired, June 22, 1904.

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 12 and 13; dig pits, 28x22x12 ins., crosswise on each line, N., S., and W. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

C C T34N R44W on W.,

PL on E.,

S12 on N. and

S13 on S face, with 2 grooves on N. and 4 grooves on S. face.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Mountainous land, 8.20 chs.

From the cor. of secs. 11. 12. 13. 14 I run S. 0° 4' W.,

on a true line bet. frac. secs. 13 and 14.

Over broken mountainous land.

6.00 Wagon trail, bears E. and W.

15.62 Intersect S. bdy. of Pine Ridge Indian Reservation; 8.13 chs. N. 89° 57' W. of the 11 mile cor. on Reservation bdy. which

Subdivision of Township 34 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

I repaired June 22, 1904.

Set a sandstone 20x20x4 ins., 15 ins. in the ground for closing cor. of frac. secs. 13 and 14, marked C C on N. and PL on S., with 1 groove on E. and 5 grooves on W. face; dig pits 28x22x12 ins., crosswise on each line, E. and W., 3 ft. and N. of stone, 8 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, N. of cor.

I again make search, but can find no closing cor. of secs. 12 and 13, from the south.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Mountainous land, 15.62 chs.

4:30 P.M., July 1, 1904.

I next test the adjustments of the solar by p.m. and a.m. observations on a meridian established from observations on Polaris, and find them correct, on July 1 and 2, 1904, as recorded in field notes of subdivision of T. 35 N., R. 45 W., book

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

F. of surveys executed under this contract.

General Description.

Except for a comparitively narrow valley along Larabee creek, the surface of this Tp. is all very rough and mountainous land covered with a scattering growth of pine timber. The soil is a sandy clay loam, good 2" rate. Elm ash, and box-elder timber is found along Larabee and White Clay creeks, which water the Tp. There is also water in the springs of Patten creek in secs. 1, 2, 11, and 12.

Settlers have squatted on all the tillable land along the creeks. Larabee creek, furnishes about 5 cubic ft. of water per second, which may easily be used to irrigate the lower bottoms.

George N. Bates.
U.S. Deputy Surveyor.

Subdivision of Township 34 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

Township Range

West of the th Principal Meridian.

CHAINS.

LIST OF NAMES.

A list of the names of the individuals employed by George W. Bates U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivision lines of T. 34 N., R. 44 W. of the 6th Principal meridian in ~~South Dakota~~ Nebraska, showing the respective capacities in which they acted:

James W. Dawson	chainman.
Charles H. Townsend	chainman.
Carlos G. Bates	moundman.
James L. Wilson	flagman.

FINAL OATHS OF ASSISTANTS.

WE HEREBY CERTIFY that we assisted.....

....., U. S. Deputy Surveyor, in surveying

all those parts or portions of the.....

.....

.....

.....

..... of the ..... meridian, South Dakota, as represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor-General for South Dakota.

The final oaths of deputy and assistants covering the field notes of this T. 34 N. R. 44 W., are with the field notes of T. 34 N. R 45 W., book G of surveys executed under this contract.

.....

.....

.....

Subscribed and sworn to before me this..... day of....., 190....

.....

.....

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I,....., U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from ....., U. S. Surveyor-General for South Dakota, bearing date of the ..... day of....., 190.... I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, surveyed all those parts or portions of

.....

.....

.....

..... of the ..... meridian, in South Dakota, which are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the manual of surveying instructions and the special written instructions of the U. S. Surveyor-General for South Dakota, and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this..... day of....., 190....

.....

.....

56
192

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., FEB. 9, 1905, ~~190~~

The foregoing field notes ~~of the survey of~~ comprised in one book lettered "E" of the survey of the subdivision lines of T.34 N., R.44, W.,

of the 6th principal meridian, in ~~South Dakota,~~ Nebraska, executed by George W. Bates, under his contract No. 158, dated April 30, 1904, ~~190~~ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

Surveyor-General.
for South Dakota.

2926b150-2-02

TRANS A.S.
COMPARED B & S.

No 5 ✓ RH 1/193

Book "D".

FIELD NOTES

OF THE SURVEY OF

the
subdivision lines
of
T. 35 N.,
R 44
West of the 6" Principal Meridian,

IN THE STATE OF ~~SOUTH DAKOTA~~ NEBRASKA.

As surveyed by George W. Bates
United States Deputy Surveyor.

Under his contract No. 158

Dated April 30, 190~~4~~

Survey commenced June 27, 190~~4~~

Survey completed June 29, 190~~4~~

K

NAMES AND DUTIES OF ASSISTANTS.

James W. Dawson. chainman.
Charles H. Townsend. chainman.
Carlos G. Bates. moundman.
James L. Wilson. flagman.

INDEX DIAGRAM. Tp. ..... R. .....

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

PRELIMINARY OATHS OF ASSISTANTS.

We, James W. Dawson and Charles H. Townsend.

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground and plumb the tally pins either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the subdivision lines of the unsurveyed portions of townships 34 and 35 north, of ranges 44 and 45 west of the 6th Principal Meridian in Nebraska

James W. Dawson, Chainman.
Charles H. Townsend, Chainman.
....., Chainman.
....., Chainman.

Subscribed and sworn to before me this 21 day of June, 1904

F. E. McGregor
NOTARY PUBLIC, Shannon Co., S.D.
MY TERM EXPIRES NOV. 8TH, 1905.

F. E. McGREGOR NOTARY PUBLIC SOUTH DAKOTA

PRELIMINARY OATHS OF ASSISTANTS.

We, I, Carlos G. Bates

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen and axmen in the establishment of corners and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of the subdivision lines of the unsurveyed portions of Tps. 34 and 35 N., Rs. 44 and 45 W. of the 6" Principal Meridian, in Nebraska.

_____, Moundman.

Carlos G Bates, Moundman.

_____, Axman.

_____, Axman.

Subscribed and sworn to before me this 21 day of June, 1904

F E McIntyre
NOTARY PUBLIC, Shannon Co., S.D.
~~MY TERM EXPIRES NOV. 8TH, 1905.~~

I, James L. Wilson, do solemnly swear that I will well and truly perform the duties of flagman, according to instructions given me, to the best of my skill and ability, in the survey of the subdivision lines of the unsurveyed portions of Tps. 34 and 35 N., Rs. 44 and 45 W. of the 6" Principal Meridian, in Nebraska.

James L. Wilson, Flagman.

Subscribed and sworn to before me this 21 day of June, 1904

F E McIntyre
NOTARY PUBLIC, Shannon Co., S.D.
~~MY TERM EXPIRES NOV. 8TH, 1905.~~

2930b100-2-02

Subdivision of Township 35 N., Range 45 West of the Sixth Principal Meridian.

CHAINS.

Survey commenced June 27, 1904 and executed with a Young and Sons light mountain transit, No 5705, with a Smiths solar attachment. The instrument is provided with two double verniers, placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the meridian at Huron, found correct, and was approved by the surveyor general for South Dakota, June 10, 1904.

I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from a solar observation, with a meridian determined by observations on Polaris, I proceed as follows:

At the point, about 30.00 chs. N. 30°4' W. of the old cor. of Tps. 34 and 35 N., Rs. 44 and 45 W, where I established

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

a meridian by Polaris observations on June 21, 1904, as recorded in field notes of resurvey of W. bdy. of Tps. 34 and 35 N., R. 44 W., book A. of surveys executed under this contract; at 9h 50m a.m., l.m.t., I set off 42°58' on the lat. arc, 23° 20' N. on the decl. arc; and find the meridian thus determined with the solar, practically agrees with the meridian established by the Polaris observations: therefore, I conclude that the adjustments of the instrument are satisfactory.

I last tested the adjustments of the solar by p.m. and a.m. observations on this same meridian established by Polaris observations, on June 20 and 21, 1904, and found all adjustments satisfactory; as fully recorded in book A. of surveys executed under this contract.

The magnetic bearing of the meridian at 10h 0m a.m., is N. 14°12' W.; the angle thus determined, gives the mean mag. decl. 14° 10' E. at the Tp. cor.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Under this contract I reestablished the W. bdy. of the frac. Tp., the course of which is North, on June 26, 1904; and I established the S. bdy. of the frac. Tp., the course of which is S. 89°41' W., on June 26, 1904. See Books A and B.

Acting under special instructions issued me with this contract, I proceed to subdivide this partial Tp., from the south and from the west, according to the method given in the Manual of Instructions.

Whenever the words "Pine Ridge Indian Reservation" appear in these notes reference is made to that portion of it which is in Nebraska as defined by the Act of March 2, 1889.

I commence at the cor. of secs. 5, 6, 31, and 32, on the S. bdy. of the Tp., which I established June 26, 1904; ~~lat. 42° 59.5 N., long 102° 39' W.~~

Thence I run

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

N. 0°1' E.,
bet. secs. 31 and 32.
Over mountainous land, through scattering pine timber, ascending.
3.50 Bottom of ravine, 5 lks. wide, 40 ft. deep, course W.
11.50 Bottom of ravine, 15 lks. wide, 40 ft. deep, course W.; leave timber, bears E. and W.
21.00 Top of ridge, bears E. slopes NW.; 180 ft. above sec. cor. S.; dist. 200 ft.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 31 on W. and 32 on E. face.
70.00 Foot of descent, wagon trail, bears E. and W., in bottom of ravine, 40 lks. wide, course NW.; dist. 40 ft.
72.00 From this point, a cabin bears E. 12 chs.
75.50 Top of ridge, bears NW. and E.; dist. 50 ft. through scattering timber and dense undergrowth, bears NW. and E., &
76.30 Foot of descent, leave mountainous land, bears NW. and E.; thence, over level

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

bottom land
76.40 Patton creek, 6 lks. wide, 10 ins. deep, course W., moderate current, banks sloping, 2 ft. high.
80.00 Set an elm post, 3 ft. long, 4 ins. sq., with marked stone 24 ins. in the ground, for cor. of secs. 29, 30, 31, and 32, marked
T35NS29 on NE.,
R44WS32 on SE.,
S31 on SW., and
S30 on NW. face; with 1 notch on S., and 3 notches on E. edge; from which
An elm, 16 ins. diam., bears N. 46° E., 149 lks. dist., marked T35NR44WS 29 BT.
An elm, 10 ins. diam., bears S. 64°30' E., 97 lks. dist., marked T35NR44 WS32 BT.
An elm, 5 ins. diam., bears S. 3° W., 5 lks. dist., marked T35NR44 WS31 BT.
An elm, 10 ins. diam., bears N. 29° W., 45 lks. dist., marked T35NR 44WS30 BT.
Land, mountainous and level.
Soil, sandy clay loam, 2" rate.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Timber, pine, elm, boxelder and ash: undergrowth, elm, ash, plum and buffalo-berry.
Mountainous land or dense undergrowth, 80.00 chs.

June 27. at the cor. of secs. 29, 30, 31, and 32, at 0h 2.8m p.m. l.m.t., I set off 23° 20' N. on the decl. arc, and observe the sun on the meridian: the resulting lat. is 42° 58' N., which is about 0.4 less than the proper lat.

S. 89° 41' W.,
on a random line bet. secs. 30 and 31.

40.00 Set temp. 1/4 sec. cor.

80.00 Intersect W. bdy. of Tp., 14 lks. S. of cor. of secs. 25, 30, 31, and 36, which I reestablished June 26, 1904.

Thence I run

N. 89° 47' E.,
on a true line bet. secs. 30 and 31.
Over nearly level land.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

22 x 12 ins., E. and W. of cor. 4 ft. dist.; and raise a mound of earth 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 30 on N. and 31 on S. face.

64.00 From this point a dugout bears N., 7 chs. dist.

66.50 Bottom of ravine, 20 lks. wide, 40 ft. deep, course N.W.

76.00 Descend steep bank 40 ft., bears N. and S.E.

76.50 Foot of descent, thence over level bottom land, through scattering timber and dense undergrowth, bears N. and S.E.

79.50 Patten Creek, 5 lks. wide, 7 ins. deep, course N., moderate current.

80.00 The cor. of secs. 29, 30, 31, and 36.
Land, level.
Soil, sandy clay loam; 2nd rate.
Timber, elm, ash and boxelder; undergrowth the same with plum.
Dense undergrowth, 3.50 chs.

N. 0° 1' E.,

Subdivision of Township 35 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

bet. secs. 29 and 30.
Over level bottom land, through scattering timber and dense undergrowth.
9.40 Leave bottom land, timber and undergrowth, bear N.W. and S.E., asc. 40 ft.
10.00 Top of bank, bears N.W. and S.E.; thence over nearly level land.
12.50 Wagon trail bears N.W. and S.E.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor. 4 ft. dist.; and raise a mound of earth 3½ ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 30 on W. and 29 on E. face.
76.00 Shallow drain, course N.W.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 19, 20, 29, and 30; dig pits 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth 4½ ft. base, 2 ft. high, over deposit.
In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

Subdivision of Township 35 N. Range 44

West of the Sixth Principal Meridian.

CHAINS.

T 35 N S 20 on N.E.,
R. 44 W S 29 on S.E.,
S 30 on S.W., and
S 19 on N.W. face, with 2 notches on S. and 5 notches on E. edge.
Land level.
Soil, sandy clay loam; 2" rate.
Timber, elm and ash; undergrowth, elm, ash, plum, willow and buffalo-berry.
Dense undergrowth, 9.40 chs.

S. 89° 47' W.,
on a random line bet. secs. 19 and 30.
40.00 Set temp. 1/4 sec. cor.
79.88 Intersect W. bdy. of Tp., 7 lks. S. of cor. of secs. 19, 24, 25, and 30, which I established June 26, 1904.
Thence 2 mm
N. 89° 50' E.,
on a true line bet. secs. 19 and 30.
Over gently rolling land.
0.30 Telephone line from Rushville Nebr. to Pine Ridge So. Dak., bears N. and S.
0.90 Mail road from Rushville Nebr. to Pine Ridge So. Dak., bears N. and S.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

34.00 Intersection of wagon trails, bear NE. and SW.; and NW. and SE.

39.94 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 19 on N. and 30 on S. face.

76.00 Shallow drain, course NW.

79.88 The cor. of secs. 19, 20, 29, and 30.

Land, gently rolling.

Soil, sandy clay loam, 2" rate.

N. 0° 1' E.

— bet. secs. 19 and 20.

Over gently rolling land.

5.00 From this point, a small frame house bears E., 10 chs. dist.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 19 on W. and 20 on E. face.

49.50 Wagon trail, bears NE. and SW.

68.36 Intersect N. bdy. of state, 4.63 chs. N. 89° 58' E. of the 147 mile monument on interstate bdy., W. of the initial point, which is a quartzite stone, 12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and 147 M. on E. face.

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 19 and 20; dig pits 22x28x12 ins., crosswise on each line, E., W., and S., of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
C C T 35 N R 44 W on S.,
S D on N.,
S 20 on E., and
S 19 on W. face; with 5 grooves on E. and 1 groove on W. face.

Land, gently rolling.

CHAINS.

Soil, sandy clay loam; 2" rate.

June 27, 1904.

From the cor. of secs. 4, 5, 32, and 33 on S. bdy. of Tp., which I established June 26, 1904,

I run

N. 0° 2' E.,

bet. secs. 32 and 33.

Over mountainous land, through scattering pine timber, asc. 15 ft. &

3.00 Top of ridge, bears N.W. and S.E.; disc. 225 ft.

29.00 Point of ridge, bears S.W.; leave pine timber, bears S.E. and S.W.;

38.00 Foot of descent, leave mountainous land, bears E. and W.; theme over level bottom land through scattering timber and dense undergrowth.

39.35 Patten Creek, 10 lks. wide, 2 ins. deep, course W., swift current, gravel bottom, banks steep, 8 ft. high.

40.00 Set a box-elder post, 3 ft. long, 3 ins. sq., with marked stone 24 ins. in the ground for 1/4 sec. cor., marked 1/4 S 32 on W. and 33 on E. face; from which

CHAINS.

An elm, 34 ins. diam., bears S. 82° 50' E., 107 lks. dist.; marked 1/4 S 33 B.T.

An ash, 7 ins. diam., bears N. 61° 30' E., 81 lks. dist., marked 1/4 S 32 B.T.

44.00 From this point the house of Leon C. Bouk bears W., 12 chs. dist.

46.00 Leave level bottom land, timber and undergrowth; bear N.W. and S.E.; asc. 40 ft. over gently rolling land &

49.00 Top of ascent bears N.W. and S.E.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 28, 29, 32, and 33; dig pits 22 × 22 × 12 ins. in each sec., 4 ft. dist.; and raise a mound of earth 4 1/2 ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked.

T 35 N S 28 on N.E.,

R 44 W S 33 on S.E.,

S 32 on S.W., and

S 29 on N.W. face; with 1 notch on S. and 4 notches on E. edge.

Land, mountainous, level and gently rolling

Soil, sandy clay loam; 2" rate.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Timber, pine, ash, elm: undergrowth, ash, elm, willow and buck-brush.
Mountainous land or dense undergrowth, 46.00 chs.

S. 89°41' W.,
on a random line bet. secs. 29 and 32.
40.00 Set temp. 1/4 sec. cor.
80.00 Intersect N. and S. line 16 lks. S. of cor. of secs. 29, 30, 31, and 32.
Thence I run
N. 89°48' E.,
on a true line bet. secs. 29 and 32.
Over level bottom land through scattering timber and dense undergrowth.
4.00 Patten Creek, 15 lks. wide, 10 ins. deep, course S., current slow.
5.00 Wagon trail, bears N. and S.
9.30 Patten Creek, 8 lks. wide, 10 ins. deep, course NW.; banks steep, 6 ft. high.
18.00 Leave timber, undergrowth and low bottom, bear NW. and SE., asc. 40 ft.
20.50 Top of ascent, bears NW. and SE.; thence over nearly level land.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 29 on N. and 32 on S. face.
47.00 Drain, 60 lks. wide, 10 ft. deep, course NW.
80.00 The cor. of secs. 28, 29, 32, and 33.
Land, level and nearly level.
Soil, sandy clay loam; 2" rate.
Timber, elm ~~and~~ ash and box-elder: undergrowth; sauce with plum and cherry.
Dense undergrowth, 18.00 chs.

N. 0°2' E.,
bet. secs. 28 and 29.
Over level land.
14.00 Bottom of ravine, 60 lks. wide, course W.; scattering pines along ravine bottom: leave level land, thence, over mountainous land, bears E. and W., asc. 250 ft.
34.00 Bottom of ravine, 80 lks. wide, 40 ft. deep,

Subdivision of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

course S.W.; elm and cottonwood timber along ravine bottom; continue ascent.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22×22×12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In S. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 29 on W. and 28 on E. face.

53.00 Top of ascent, stony ridge, bears S.W. and N.; along ridge ¼

57.00 Leave top of ridge, bears N.E. and S.; desc. 200 ft. ¼

74.00 Bottom of ravine, 40 lks. wide, course W.; asc. 100 ft. ¼

80.00 Set an ash post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 20, 21, 28, and 29, marked
T35N S 21 on N.E.,
R44W S 28 on S.E.,
S 29 on S.W., and
S 20 on N.W. face; with 2 notches on S. and 4 notches on E. edge; dig pits 22×22×12 ins., in each sec.,

Subdivision of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

5½ ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, W. of cor.,
Land, level and mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine, elm and cottonwood.
Mountainous land, 66.00 chs.

S. 89° 48' W.,
on a random line bet. secs. 20 and 29.

40.00 Set temp. 1/4 sec. cor.

80.00 Intersect N. and S. line 9 lks. S. of cor. of secs. 19, 20, 29, and 30.

Thence 2 mn

N. 89° 52' E.,
on a true line bet. secs. 20 and 29.
Over nearly level land.

33.00 Begin ascent of 120 ft. over gentle slope, bears N. and S.

43.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor., dig pits 22×22×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground,

Subdivision 7 Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

	marked 1/4 S 20 on N. and 29 on S. face.
68.00	Top of gentle ascent; thence, over mountainous land, bears N. and S.; continue ascent 100 ft. to
80.00	The cor. of secs. 20, 21, 28, and 29. Land, level, sloping and mountainous. Soil, sandy clay loam; 2" rate. Mountainous land, 12.00 chs.

N. 0° 2' E.,

bet. secs. 20 and 21.

	Over mountainous land, asc. 75 ft. to
16.00	Top of ridge, bears N.W. and S.E.; desc. 175 ft. to
34.00	Foot of descent, leave mountainous land, bears E. and W.; thence over gently rolling land.
40.00	Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit. In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 20 on W. and 21 on E. face.

Subdivision 7 Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

68.36	Intersect N. bdy. of state, 4.04 chs. N. 89° 54 1/2' E. of the 146 mile monument on the interstate bdy. W. of the initial point, which is a quartzite stone, 12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and 146 M. on E. face. Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 20 and 21; dig pits 25 x 22 x 12 ins., crosswise on each line, E., W., and S. of cor., 4 ft. dist.; and raise a mound of earth, 4 1/2 ft. base, 2 ft. high, over deposit. In E. pit drive an elm stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked C C T 35 N R 44 W on S., S D on N., S 21 on E., and S 20 on W. face, with 4 grooves on E. and 2 grooves on W. face. Land, mountainous and gently rolling. Soil, sandy clay loam; 2" rate. Mountainous land, 34.00 chs.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

From the cor. of secs. 3, 4, 33, and 34, on S. bdy. of Tp., which I established June 26, 1904

I run

N. 0° 2' E.,

bet. secs. 33 and 34.

Over mountainous land, asc. 275 ft.

10.00 Enter scattering pine timber, bears E. and W.

35.00 Top of ridge, bears E. and W.; desc. 170 ft.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 33 on W. and 34 on E. face.

From the cor.

A pine, 12 ins. diam., bears N. 42° 50' W., 105 lks. dist., marked 1/4 S 33 BT.

No other tree within limits for bearing tree.

50.50 Bottom of ravine, 20 lks. wide, course W.; asc. 150 ft. ±

63.50 Top of ridge, bears E. and W., desc. 170 ft. ±

74.00 Bottom of ravine, 10 lks. wide, course SW.;

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

asc. 150 ft. ±

76.50 Point of ridge, bears NE. desc 100 ft. ±

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 27, 28, 33, and 34; dig pits 22 x 22 x 12 ins., in each sec., 4 ft. dist., and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In SE. pit drive an elm stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 35 N S 27 on NE.,

R 44 W S 34 on SE.,

S 33 on SW., and

S 28 on NW. face; with 1 notch on S. and 3 notches on E. edge.

No trees within limits for bearing trees.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land, 80.00 chs.

S. 89° 41' W.,

on a random line bet. secs. 28 and 33.

40.00 Set temp. 1/4 sec. cor.

80.12 Intersect N. and S. line 19 lks. N. of cor.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

of secs. 28, 29, 32, and 33.
Thence I run
N. 89° 33' E.,
on a true line bet. secs. 28 and 33.
Over gently rolling land.

11.00 Leave gently rolling land; thence, over mountainous land, bears N. and S.; ascending.

26.00 Bottom of ravine, 60 lks. wide, 60 ft. deep, course S.W.

30.00 Enter scattering pine timber, bears N. and S.

40.06 Set an ash post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for 1/4 sec. cor., marked 1/4 S 28 on N. and 33 on S. face; from which
A pine, 11 ins. diam., bears N. 25° W., 274 lks. dist., marked 1/4 S 28 B T
A pine, 10 ins. diam., bears S. 11° 45' E., 86 lks. dist., marked 1/4 S 33 B T.

46.50 Bottom of ravine, 40 lks. wide, 50 ft. deep, course S.

56.00 Top of ascent, ridge, bears N. and S., 170 ft. above beginning of ascent; desc. 160 ft. ±

63.00 Bottom of ravine, 20 lks. wide, course S., asc. 140 ft. ±

69.00 Top of ridge, bears N. and S.; desc. 150 ft.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

73.00 Bottom of ravine, 20 lks. wide, 50 ft. deep, course S.

79.40 Bottom of ravine, 30 lks. wide, course S.W.; asc. 40 ft. ±

80.12 The cor. of secs. 27, 28, 33, and 34.
Land, gently rolling and mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 69.12 chs.

N. 0° 2' E.,
bet. secs. 27 and 28.
Over mountainous land, through scattering pine timber, desc. 40 ft. ±

5.00 Bottom of ravine, 10 lks. wide, course S.W.; asc. 250 ft. very rough, ±

32.00 Top of ridge, leave timber, bear E. and W.; desc. 150 ft.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

1/4 S 28 on W. and 27 on E. face.

46.00 Bottom of ravine, 30 lks. wide, course NW.; scattering pines along ravine bottom; asc. 80 ft. &

71.00 Top of ridge, bears NW. and SE.; desc. 50 ft. &

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 21, 22, 27, and 28; dig pits, 22×22×12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In SE. pit, drive an elm stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T35NS22 on NE.,
R44WS27 on SE.,
S28 on SW., and
S21 on NW. face; with 2 notches on S. and 3 notches on E. edge.

From the cor.

A pine, 11 ins. diam., bears S. 18° E., 140 lks. dist., marked T35NR 44WS27BT.

A pine, 8 ins. diam., bears N. 56°45' W., 245 lks. dist., marked T35NR 44WS21BT.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

No other trees near this cor.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs.

S. 89°33' W.,
on a random line bet. secs. 21 and 28.

40.00 Set temp. 1/4 sec. cor.

80.12 Intersect N. and S. line 12 lks. N. of cor. of secs. 20, 21, 28, and 29.

Thence I run

N. 89°28' E.,
on a true line bet. secs 21 and 28.

Over mountainous land, asc. 80 ft. &

1.00 Top of stony point bears SW 1. ch., and NE.; thence over a succession of stony points, bearing N.

7.00 Enter scattering pine timber, bears N. and S.

18.40 Top of ridge, bears NW. and SE.; desc. 140 ft.

40.06 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22×22×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 21 on N. and 28 on S. face.
No trees within limits for bearing trees.

44.00 Bottom of ravine, 20 lks. wide, course N.; asc. 120 ft. +

51.00 Top of ridge, bears N. and S.; desc. 160 ft. +

57.50 Bottom of ravine, 20 lks. wide, course N.; asc. 160 ft. +

65.60 Top of ridge, bears N. and S.; desc. 120 ft. +

72.50 Bottom of ravine, 20 lks. wide, course N.; asc. 120 ft. +

78.50 Top of ridge, bears N. and S.; desc. 50 ft. +

80.12 The cor. of secs. 21, 22, 27, and 28.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.12 chs.

N. 0° 2' E.,
on a true line bet. secs. 21 and 22.
Over mountainous land, descending.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

12 ins. N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In S. pit drive an elm stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 21 on W. and 22 on E. face.

67.61 Intersect N. bdy. of state 4.80 chs. S. 89° 50' E. of the 145" mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and 145 M. on E. face.

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 21 and 22; dig pits 28 x 22 x 12 ins., crosswise on each line, E., W., and S. of cor., 4 ft. dist.; and raise a mound of earth, 4 1/2 ft. base 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
CC T35N R44W on S.,
SD on N.,
S 22 on E., and
S 21 on W. face, with 3 grooves on

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

E. and W. faces.

This cor. is about 275 ft. below sec. cor. S.

Land mountainous

Soil, sandy clay loam; 2" rate.

Mountainous land, 67.61 chs.

From the cor. of secs. 2, 3, 34, and 35, on S. bdy. of Tp., which I established June 26, 1904.

Drum

N. 0° 3' E.,

bet. secs. 34 and 35.

Over mountainous land, through scattering pine timber; asc. 30 ft. +

1.50 Top of ridge, bears NW. and E., desc. 110 ft. +

7.00 Bottom of ravine, 60 lks. wide, course NW.; asc. 60 ft. +

15.60 Point of ridge, bears E.; desc. 110 ft. +

16.30 Bottom of ravine, course SW., 80 lks. wide, comes from N. and NE.; along ravine bottom +

24.00 Leave ravine, comes from NE.; asc. 225 ft.

40.00 Set an elm post, 3 ft. long, 4 ins. sq.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

with marked stone, 24 ins. in the ground, for 1/4 sec. cor., marked 1/4 S 34 on W. and 35 on E. face; from which

A pine, 8 ins. diam., bears S. 54° 35' E., 11 lks. dist.; marked 1/4 S 35 B T.

A pine, 9 ins. diam., bears N. 68° 50' W. 125 lks. dist., marked 1/4 S 34 B T.

68.00 Leave timber, bears E. and W.

71.00 Top of ridge, bears E. and W.; desc. 50 ft.

71.70 Wagon trail, bears E. and W.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 26, 27, 34, and 35; dig pits, 22×22×12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins in the ground, marked

T 35 N S 26 on NE.,

R 44 W S 35 on SE.,

S 34 on SW., and

S 27 on NW. face, with 1 notch on S., and 2 notches on E. edge.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Timber, pine

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Mountainous land, 80.00 chs.

Sky cloudy this entire day, preventing any solar observations. I obtain courses by turning angles from lines previously run.

June 28, 1904.

S. 89°41' W.,

on a random line bet. secs. 27 and 34.

40.00 Set temp. 1/4 sec. cor.

79.90 Intersect N. and S. line 9 lks. S. of cor. of secs. 27, 28, 33, and 34.

Thence I run

N. 89°45' E.,

on a true line bet. secs. 27 and 34.

Over mountainous land, through scattering pine timber, asc. 120 ft. to

4.00 Top of ridge, bears NE. and SW.; continue broken ascent 60 ft. to

13.20 Top of stony point, bears N.; desc. 170 ft. to

19.00 Bottom of ravine, 40 lks. wide, course SW.; asc. 160 ft.

23.00 Leave pine timber, bears NE. and SE.

28.00 Point of ridge, bears S.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

34.00 Point of ridge, bears S.; desc. 60 ft. to

39.00 Bottom of ravine, 40 lks. wide, course NW.; a few pines on N. side of ravine; asc. 140 ft.

39.95 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 27 on N. and 34 on S. face.

From the cor.

A pine, 10 ins. diam., bears N. 16°40' W., 111 lks. dist.; marked 1/4 S 27 B T.

No other tree for bearing tree.

52.50 Wagon trail on top of ridge, bear N. and S.; desc. 100 ft. to

59.50 Bottom of ravine, 60 lks. wide, course N.; a few pines along ravine bottom; asc. 100 ft. to

69.00 Top of ridge, bears N. and S.; desc. 90 ft. to

75.00 Bottom of ravine, 40 lks. wide, course N.; comes from S. and SW.; a few pines along ravine bottom; asc. 60 ft. to

79.90 The cor. of secs. 26, 27, 34, and 35.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 79.90 chs.

N. 0° 3' E.,
bet. secs. 26 and 27.
Over broken mountainous land.

4.60 Top of ridge, bears NW. and SE.
11.00 Bottom of ravine, 40 lks. wide, 60 ft. dep., course NW.
17.50 Top of ridge, bears NW. and SE.
32.00 Top of ridge, bears NW. and SE.; enter scattering pine timber, bears NW. and SE.; disc. 180 ft.
36.80 Bottom of ravine, 40 lks. wide, course NW., asc. 180 ft.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins, N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 27 on W. and 26 on E. face.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

No trees within limits for bearing trees.

48.60 Top of ridge, bears E. and W., there broken.
56.50 Top of ridge, bears E. and W.
71.60 Point of ridge, bears SW.; leave pine timber, bears SE. and SW.; disc. 190 ft. to
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 22, 23, 26, and 27; dig pits 22x22x12 ins, in each sec, 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In SE. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T35N S23 on NE.,
R44W S26 on SE.,
S27 on SW., and
S22 on NW. face, with 2 notches on S. and E. edges.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs.

S. 89° 45' W.,
on a random line bet. secs. 22 and 27.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

40.00 Set temp. 1/4 sec. cor.

80.00 Intersect N. and S. line 13 lks. N. of cor. of secs. 21, 22, 27, and 28.

Thence I run

N. 89° 39' E.,

on a true line bet. secs. 22 and 27.

Over mountainous land.

18.30 Point of ridge, bears SW.; desc. 200 ft. to

32.60 Bottom of ravine, 80 lks. wide, course NE.; dense undergrowth along ravine bottom.

34.80 Bottom of ravine, 70 lks. wide course N.

36.40 Bottom of ravine, 100 lks. wide, course NW.; dense undergrowth along ravine bottom; thence, asc. 200 ft.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 22 on N. and 27 on S. face.

44.00 From this point, Cabin of Harry Jacobs bears S., 3.00 chs. dist.

58.50 Top of ridge, bears NW. and SE.;

75.70 Top of ridge, bears N. and S.; desc. 160 ft. to

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

80.00 The cor. of secs. 22, 23, 26, and 27.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Undergrowth, ash, plum and buffalo berry

Mountainous land, 80.00 chs.

N. 0° 3' E.,

on a true line bet. secs. 22 and 23.

Over mountainous land, desc. 100 ft.

17.00 Bottom of ravine, 40 lks. wide, course NW.

25.25 Bottom of ravine, 40 lks. wide, course NE.; leave mountainous land, bears E. and W.; thence, over hilly land.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 22 on W. and 23 on E. face.

46.00 Drain, 150 lks. wide, 2 ft. deep, course NW.

66.88 Intersect N. bdy. of state, 4.96 chs. S. 89° 59'

Subdivision of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

E., of the 144" mile monument on interstate bdy. W. of the initial point, which is a quartzite stone 12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and 144 M. on E. face.

Set a sandstone 22x12x5 ins, 16 ins. in the ground for closing cor. of fract. secs. 22 and 23, marked
CC on S and
SD on N face; with 2 grooves on E. and 4 grooves on W. face; dig pits 28x22x12 ins, crosswise on each line, E. and W. 3 ft. and S. of stone 8 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, S. of cor.

Land, mountainous and hilly.
Soil, sandy clay loam; 2" rate.
Mountainous land, 25.75 chs.

From the cor. of secs. 1, 2, 35 and 36, on S. bdy. of Tp., which I established June 26, 1904.

I run

Subdivision of Township 35 N. Range 44
West of the Sixth Principal Meridian.

CHAINS.

N. 0° 4' E.,
bet. secs. 35 and 36.

Over mountainous land, asc. 90 ft. to
13.90 Wagon trail, on top of ridge, bear E. and W.; thence, desc.
40.00 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits 22x22x12 ins, N. and S. of cor, 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked ¼ S 35 on W. and 36 on E. face.

From the cor.
A pine, 11 ins. diam., bears S. 87° W., 224 lks. dist., marked ¼ S 35 B.T.
No other tree for bearing tree.

56.00 Enter scattering pine timber, bears E. and W.
60.10 Bottom of ravine, 40 lks. wide, 70 ft. deep, course W.
80.00 Set an ash post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 25, 26, 35, and 36; marked
T 35 N S 25 on NE.,
R 44 W S 36 on SE.,

Subdivision of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

S 35 on SW., and
S 26 on NW. face, with 1 notch on
S. and E. edges; from which
a pine, 22 ins. diam., bears N. 24° 20'
E., 59 lks. dist., marked T 35 N
R 44 W S 25 B.T.
a pine, 16 ins. diam., bears S. 32° E.,
220 lks. dist., marked T 35 N
R 44 W S 36 B.T.
a pine, 22 ins. diam., bears S. 52° 50'
W., 168 lks. dist., marked T 35 N
R 44 W S 35 B.T.
a pine, 17 ins. diam., bears N. 46° 30'
W., 342 lks. dist., marked T
35 N R 44 W S 26 B.T.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs.

S. 89° 41' W.,
on a random line bet. secs. 26 and 35.
40.00 Set temp. 1/4 sec. cor.
79.98 Intersect N. and S. line 12 lks. S. of cor.
of secs. 26, 27, 34, and 35.

Subdivision of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

Thence I run
N. 89° 46' E.,
on a true line bet. secs. 26 and 35.
Over mountainous land, asc. 180 ft.
14.00 Wagon trail, bears NE. and SW.
32.00 Top of ridge, bears N. and S.; enter
scattering pine timber bears N. and S.;
desc. 300 ft.
38.40 Wagon trail, bears N. and S.
39.99 Deposit a marked stone 12 ins. in the
ground for 1/4 sec. cor.; dig pits 22 x 22 x
12 ins., E. and W. of cor., 4 ft. dist.;
and raise a mound of earth, 3 1/2
ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long,
2 ins. sq., 12 ins. in the ground,
marked 1/4 S 26 on N. and 35 on S. face.
From the cor.
a pine, 11 ins. diam., bears N. 65° 20' E.,
110 lks. dist., marked 1/4 S 26 B.T.
a pine, 8 ins. diam., bears S. 30° E.,
52 lks. dist., marked 1/4 S 35 B.T.
65.60 Bottom of cañon, 10 lks. wide, course NE.,
nearly vertical sides 60 ft. high; asc.
120 ft. ±
68.20 Point of ridge, bears SW.; desc. 130 ft. ±

CHAINS.

73.80 Bottom of ravine, 120 lks. wide, course N.; asc. 130 ft. &

79.98 The cor. of secs. 25, 26, 35, and 36.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 79.98 chs.

June 29: at the cor. of secs. 25, 26, 35, and 36; I set off 23°14' N. on the decl. arc, and, at 0h 3.2m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 42°58', which is about 0.4 less than the proper lat.

Note. The positions of the established closing cors. of the lines bet. secs. 25 and 36, and bet. secs. 24 and 25, on the E. bdy. of the Pine Ridge Indian Reservation, as determined on the retracement of the said bdy., book B. of surveys executed under this contract, are such as to preclude the possibility of connecting the said closing cors. with the cors.

CHAINS.

of secs. 25, 26, 35, and 36, and of secs. 23, 24, 25, and 26, by lines, the courses of which should be within the prescribed limits: therefore

From the cor. of secs. 25, 26, 35, and 36, I run

N.89°41' E.,
on a true line bet. frac. secs. 25 and 36.
Over mountainous land, asc. 80 ft. through scattering pine timber.

2.00 Leave timber, bears NW. and SE.

6.70 Top of ridge, bears NW. and SE.; desc. 40 ft. &

9.34 Intersect E. bdy. of the Pine Ridge Indian Reservation, 14.55 chs. N. 0°11' E., of the 8" mile post on Reservation bdy. which I restored on June 22, 1904.

Deposit a marked stone 12 ins. in the ground, for closing cor. of frac. secs. 25 and 36; dig pits 28x22x12 ins., crosswise on each line, N., S., and W. of cor., 4 ft. dist., and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

CC T35N R44W on E.,
PL on E.,
S 36 on S., and
S 25 on N. face; with 1 groove on S. and
5 grooves on N. face.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 9.34 chs.

From the cor. of secs. 25 26 35 36 Trav
N. 0° 4' E.,
bet. secs. 25 and 26.
Over mountainous land, through
scattering pine timber, desc. 180 ft. ±
36.40 Bottom of ravine, 40 lks. wide, course
N.E., asc. 180 ft.
40.00 Deposit a marked stone 12 ins. in the
ground for 1/4 sec. cor.; dig pits 22x22
x12 ins, N. and S. of cor, 4 ft. dist.;
and raise a mound of earth, 3½
ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long,
2 ins. sq., 12 ins. in the ground,
marked 1/4 S 26 on W. and 25 on E. face.
From the cor.

Subdivision of Township 35 N., Range 44

West of the Sixth Principal Meridian.

CHAINS.

a pine, 7 ins. diam., bears N. 35° 30' E.,
68 lks. dist., marked 1/4 S 25 B T.
a pine, 14 ins. diam., bears N. 56° 30' W.,
193 lks. dist., marked 1/4 S 26 B T.
43.20 Top of ridge, bears NE. and SW.; desc. 200 ft. ±
49.60 Bottom of ravine 10 lks. wide, course E.;
asc. 200 ft. ±
69.00 Top of ridge, bears E. and W.; leave pine
timber, bears E. and W.; desc. 80 ft. ±
80.00 Deposit a marked stone 12 ins. in the
ground for cor. of secs. 23, 24, 25, and 26;
dig pits, 22x22x12 ins, in each sec.,
4 ft. dist.; and raise a mound of
earth, 4½ ft. base, 2 ft. high, over
deposit.
In S E. pit drive an ash stake, 2 ft. long, 3
ins. sq., 12 ins. in the ground, marked
T 35 N S 24 on NE.,
R 44 W S 25 on S E.,
S 26 on S W., and
S 23 on N W. face, with 2 notches on S.,
and 1 notch on E. edge.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs.

Subdivision of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

June 29: At the cor. of secs. 23, 24, 25, and 26; at 2h 30m p.m., l.m.t.; I set off 42°59' on the lat. arc; 23°14' N. on the decl. arc; and determine a meridian with the solar.

Thence I run

S. 89°46' W.,

on a random line bet. secs. 23 and 26.

40.00 Set temp. 1/4 sec. cor.

80.16 Intersect N. and S. line 16 lks. N. of cor. of secs. 22, 23, 26, and 27.

Thence I run

N. 89°39' E.,

on a true line bet. secs. 23 and 26.

Over mountainous land, desc. 20 ft. ±

1.40 Bottom of ravine, 40 lks. wide, course N.; asc. 170 ft. ±

8.90 Point of ridge, bears S.E.; enter scattering pine timber, bears N. and S.; desc. 160 ft.

12.00 Bottom of ravine, 60 lks. wide, course N.W.; asc. 160 ft. ±

18.00 Top of ridge, bears N. and S.; desc. 220 ft. ±

29.00 Bottom of ravine, 5 lks. wide course N.; asc. 190 ft. ±

38.70 Top of ridge, bears N.W. and S.E., desc. 180 ft.

40.08 Deposit a marked stone, 12 ins. in the

Subdivision of Township 35 N., Range 44
West of the Sixth Principal Meridian.

CHAINS.

ground for 1/4 sec. cor.; dig pits 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In W. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 23 on N. and 26 on S. face. Stake in W. pit on account of stone in E. pit.

From the cor.

A pine, 22 ins. diam., bears N. 62°30' W., 108 lks. dist.; marked 1/4 S 23 B.T.

A pine, 5 ins. diam., bears S. 72° E., 75 lks. dist., marked 1/4 S 26 B.T.

47.00 Bottom of ravine, 60 lks. wide, course N.; asc. 180 ft. ±

52.40 Top of ridge, bears N. and S.; leave timber, bears N. and S.; desc. 170 ft. ±

60.00 Wagon trail, bears N. and S. in bottom of ravine, 60 lks. wide, course N.; asc. 75 ft. ±

65.00 Top of round hill, desc. 70 ft. ±

80.16 The cor. of secs. 23, 24, 25, and 26.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Timber, pine.

Mountainous land, 80.16 chs.

CHAINS.

N. 89° 41' E.,
on a true line bet. frac. secs. 24 and 25.
Over mountainous land.
9.50 Intersect E. bdy. of the Pine Ridge Indian Reservation, 14.12 chs. N. 0° 11' E. of the 7" mile post on Reservation bdy., which I restored June 21, 1904.
Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 24 and 25; dig pits, 28 x 22 x 12 ins., crosswise on each line, N., S., and W., of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
CCT 35 N R 44 W on W.,
PL on E.,
S 25 on S., and
S 24 on N. face; with 2 grooves on S., and 4 grooves on N. face.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Mountainous land, 9.50 chs.

CHAINS.

From the cor. of secs. 23 and 24, 25 & 26 bears
N. 0° 4' E.,
bet. secs. 23 and 24.
Over mountainous land, desc. 20 ft. to
3.00 Foot of descent, drains E. and W.; asc. 90 ft. to
12.00 Top of ridge, bears E. and W.; desc. 130 ft. to
30.00 Foot of steep descent, leave mountainous land, bears E. and W.; thence, over rolling land, desc. 60 ft.
40.00 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits, 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked ¼ S 23 on W. and 24 on E. face.
45.30 Wagon trail, bears NE. and SW.
66.36 Intersect N. bdy. of state 4.98 chs. N. 89° 52½' E. of the 143 mile monument on interstate bdy. W. of the initial point; which is a quartzite stone, 12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and 143 M. on E. face.
Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 23 and 24; dig pits 22 x 22 x 12 ins.,

crosswise on each line, E., W., and S. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In E. pit, drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
CCT35NR44W on S.,
SD on N.
S24 on E., and
S23 on W. face, with 1 groove on E. and 5 grooves on W. face.

Land, mountainous and rolling.
Soil, sandy clay loam; 2" rate.
Mountainous land, 30.00 chs.

June 29, 1904.

I next test the adjustments of the soln by p.m. and am. observations on a meridian established from observations on Polaris, and find them correct; at the cor. of Tps. 34 and 35 N., R. 44 and 45 W., on July 1 and 2, 1904, as fully recorded in field notes of subdivision of T. 35 N., R. 45 W., book F. of surveys ✓

executed under this contract.

General Description.

The surface of this Tp., varies from level in the NW. & very rough and broken, mountainous land, covered with pine timber, in the SE. The soil is sandy clay loam; 2" rate. Ash, elm, and ~~box~~ elder timber, is found along Patten creek, which flows N.W. through the SW. part of the Tp. The land smooth enough for cultivation has been settled on by squatters.

George W. Bates
U.S. Deputy Surveyor.

..... Township ..... Range .....

West of the ..... th Principal Meridian.

CHAINS.

..... Township ..... Range .....

West of the ..... th Principal Meridian.

CHAINS.

..... Township ..... Range .....

West of the ..... th Principal Meridian.

CHAINS.

LIST OF NAMES.

A list of the names of the individuals employed by George W. Bates U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivision lines of T. 35 N. R. 44 W

of the 6" Principal meridian in ~~South Dakota~~ Nebraska, showing the respective capacities in which they acted:

James W. Dawson.	chainman.
Charles H. Townsend.	chainman.
Carlos G. Bates.	moundman.
James L. Wilson.	flagman.

FINAL OATHS OF ASSISTANTS.

WE HEREBY CERTIFY that we assisted _____

_____, U. S. Deputy Surveyor, in surveying

all those parts or portions of the _____

_____

_____

_____

_____ of the _____ meridian, South Dakota, as represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor-General for South Dakota.

The final oaths of deputy and assistants covering the field notes of this T. 35 N. R. 44 W., are with the field notes of T. 34 N. R. 45 W., book G of surveys executed under this contract.

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 190___

_____

_____

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, _____, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from _____, U. S. Surveyor-General for South Dakota, bearing date of the _____ day of _____, 190___ I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, surveyed all those parts or portions of

_____

_____

_____

_____ of the _____ meridian, in South Dakota, which are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the manual of surveying instructions and the special written instructions of the U. S. Surveyor-General for South Dakota, and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 190___

_____

_____

60
252

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., FEB. 9, 1905. ~~, 190~~

The foregoing field notes ~~of the survey of~~ comprised in one book lettered "D" of the survey of the subdivision lines of T.35 N., R.44, W.

of the 6th principal meridian, in ~~South Dakota,~~ Nebraska, executed by George W. Bates, under his contract No. 158, dated April 30, 1904, ~~, 190~~ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

Surveyor-General.

2926b150-2-02

TRANS. R. L. W. COMPARED B.&S.

Book "G". 106 RH 11 Ex 253

FIELD NOTES

OF THE SURVEY OF

the subdivision lines of T.34 N. of R 45 West of the 6" Principal Meridian,

IN THE STATE OF ~~SOUTH DAKOTA~~ NEBRASKA.

As surveyed by George W. Bates
United States Deputy Surveyor.

Under his contract No. 158

Dated April 30, 190~~4~~

Survey commenced July 4, 190~~4~~

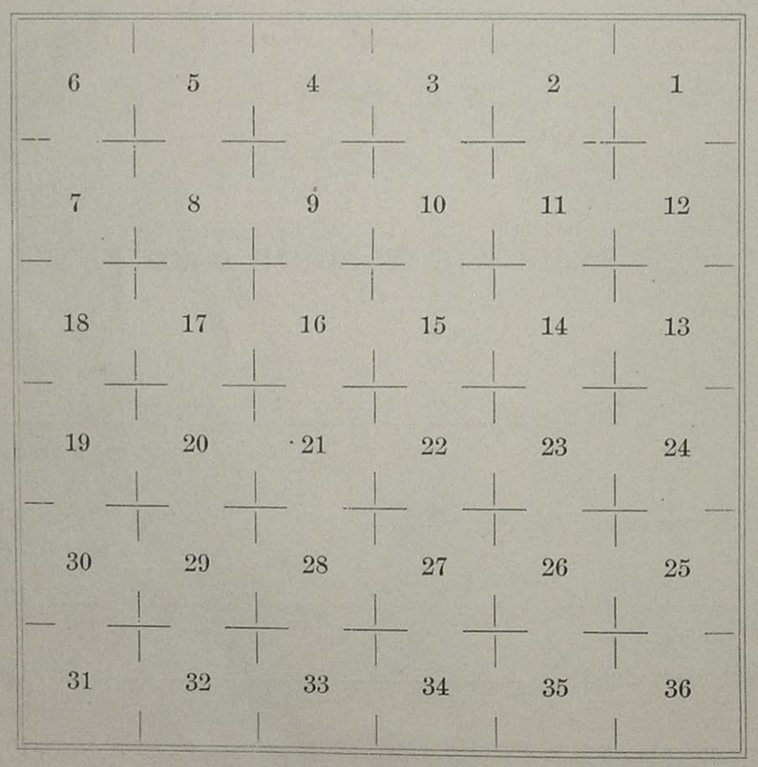
Survey completed July 5, 190~~4~~

K

NAMES AND DUTIES OF ASSISTANTS.

James W. Dawson. chainman.
Charles H. Townsend. chainman.
Carlos G. Bates. moundman.
James L. Wilson. flagman.

INDEX DIAGRAM. Tp. R.



PRELIMINARY OATHS OF ASSISTANTS.

We,

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

The preliminary oaths of assistants covering the field notes of this T. 34 N. R. 45 W., are with the field notes of T. 35 N., R. 44 W., book D of surveys executed under this contract.

, *Chainman.*

, *Chainman.*

, *Chainman.*

, *Chainman.*

Subscribed and sworn to before me this day of , 190

PRELIMINARY OATHS OF ASSISTANTS.

We, ...

.....

.....

do solemnly swear that we will well and truly perform the duties of moundmen 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 .....

.....

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this ..... day of ....., 190....

.....

.....

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

survey of the .....

.....

....., *Flagman.*

Subscribed and sworn to before me this ..... day of ....., 190....

.....

.....

Subdivision of Township 34 N. Range 45
West of the Sixth Principal Meridian.

CHAINS.

Survey commenced July 4, 1904, and executed with a Young and Sons light mountain transit No 5705, with a Smiths solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the meridian at Huron, found correct, and was approved by the surveyor general for South Dakota, June 10, 1904.

I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications resulting from a solar observation, with a meridian established from observations on Polaris; I proceed as follows:

At the point, about 30.00 chs. N. 30° 4' W. of the old cor. of Tps. 34 and 35 N., R. 44 and 45 W., where I established

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

a meridian by Polaris observations on June 21, 1904, as recorded in field notes of resurvey of Tp. bdys. book A of surveys executed under this contract; at 6h 20m a.m., l.m.t., I set off 42°58' on the lat. arc; 22°56' N. on the decl. arc, and find the meridian thus determined with the solar practically agrees with the meridian established by the Polaris observations: therefore I conclude that the adjustments of the instrument are satisfactory.

I last tested the adjustments of the solar by p.m. and a.m. observations on this same meridian established by Polaris observations, on July 1 and 2, 1904, and found all adjustments satisfactory, as fully recorded in book F of surveys executed under this contract.

The magnetic bearing of the meridian, at 6h 30m a.m., is N. 14°14' W.; the angle thus determined gives the mean mag. decl. 14°10' E., at Tp. cor

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

Under this contract, I reestablished the east bdy. of this frac. Tp., the course of which is North, on June 26, 1904; and I established the N. bdy. of the frac. Tp., the course of which is S. 89°41' W., on June 27, 1904.

Acting under special instructions issued me with this contract, I proceed to subdivide this partial Tp., from the north and from the east, according to the method given in the Manual of Instructions.

Whenever the words "Pine Ridge Indian Reservation" appear in these notes, reference is made to that portion of it which is in Nebraska, as defined by the Act of March 2, 1889.

I commence at the cor. of secs. 1, 2, 35, and 36, on N. bdy. of Tp., ~~lat. 42°57.5' N., long. 102°34' W.~~, which I established June 27, 1904.

Thence I run

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

S. 0° 1' E.,
bet. secs. 1 and 2.
Over hilly land.
30.00 From this point a log cabin, bears E., 20.00 chs. dist.
35.00 Wagon trail, bears E. and W.
39.00 Bottom of ravine, 200 lks. wide, 60 ft. deep, course NE.; scattering brush along ravine: leave hilly land bears NE. and SW.; thence, over mountainous land,
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
Dr. S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 2 on W. and 1 on E. face.
From the cor.
An ash, 5 ins. diam., bears N. 39° 20' E., 61 lks. dist., marked 1/4 S 1 B T.
No other tree large enough for bearing tree.
Thence, arc. 180 ft. to
76.50 Top of ridge, bears NE. and SW.; desc. 50 ft. to
80.00 Deposit a marked stone, 12 ins. in the

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

ground, for cor. of secs. 1, 2, 11, and 12; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.
Dr. S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T 34 N S 1 on NE.,
R 45 W S 12 on SE.,
S 11 on SW., and
S 2 on NW. face; with 5 notches on S. and 1 notch on E. edge.
Land, hilly and mountainous.
Soil, sandy clay loam; 2nd rate.
Brush, ash and buffalo-berry.
Mountainous land, 41.00 chs.

N. 89° 41' E.,
on a random line bet. secs. 1 and 12.
40.00 Set temp. 1/4 sec. cor.
79.88 Intersect E. bdy. of Tp., 6 lks. S. of cor. of secs. 1, 6, 7, and 12, which I reestablished June 26, 1904.
Thence Dr. on
S. 89° 38' W.,

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

on a true line bet. secs. 1 and 12.
Over level bottom land, through dense undergrowth and scattering timber.

2.20 White Clay creek, 15 lks. wide, 10 ins. deep, course NW.; leave timber and undergrowth and low bottom, bear NW. and S.; asc. 40 ft. to

6.00 Top of ascent, bears N. and S., thence, over high level bottom land.

8.00 Enter cultivated field, bears N. 3 chs. and S. 7 chs.

12.00 Leave field, bears N. and S. From this point, house of Babbie, bears S. 10° E., 15 chs. dist.

27.00 Mail road from Rushville Nebraska to Pine Ridge South Dakota, bears N. and S.

28.00 Leave level land; thence, over mountainous land, bears N. and S.; asc. 150 ft.

35.60 Telephone line from Rushville Nebraska to Pine Ridge So. Dak. bears N. and S.

38.50 Point of ridge, bears S.; desc. 100 ft.

39.94 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.;

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
On E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 1 on N. and 12 on S. face.

62.20 Bottom of ravine, 60 lks. wide, course NE.; asc. 170 ft. to

79.88 The cor. of secs. 1, 2, 11, and 12.
Land, level and mountainous.
Soil, sandy clay loam; 2" rate.
Timber, ash, elm, and boxelder; undergrowth, the same.
Mountainous land, or desc. undergrowth, 54.08 chs.

S. 0° 1' E.,
bet. secs. 11 and 12.
Over mountainous land, desc. 100 ft. to

18.20 Bottom of ravine, 60 lks. wide, course NE.; asc. 150 ft.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 11 on W. and 12 on E. face.

59.00 Top of ridge, bears N.W. and S.E.; desc. 100 ft. +

80.00 Deposit a marked stone 12 ins. in the ground, for cor. of secs. 11, 12, 13, and 14; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 34 N S 12 on N.E.,

R 45 W S 13 on S.E.,

S 14 on S.W., and

S 11 on N.W. face, with 4 notches on S. and 1 notch on E. edge.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Mountainous land, 80.00 chs.

N. 89° 38' E.,

on a random line bet. secs. 12 and 13.

40.00 Set temp. 1/4 sec. cor.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

80.12 Intersect E. bdy. of Tp., 2 lks. S. of cor. of secs. 7, 12, 13, and 18, which I reestablished June 26, 1904.

Thence I run

S. 89° 37' W.,

on a true line bet. secs. 12 and 13;

Over mountainous land, desc. 70 ft.

10.00 Bottom of ravine, 40 lks. wide, course N.; leave mountainous land; bears N. and S.; thence, over high, level, bottom land.

25.00 Desc. 40 ft. bears N. and S. +

25.00 Low level bottom land.

40.06 Set an ash post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground for 1/4 sec. cor., marked 1/4 S 12 on N. and 13 on S. face; from which

A box elder, 10 ins. diam., bears N. 81° W., 228 lks. dist., marked 1/4 S 12 B.T.

A box elder, 7 ins. diam., bears S. 3° 10' E., 84 lks. dist., marked 1/4 S 13 B.T.

The frame house of Geo. Comer, bears S. 5° W., 3 chs. and cabin of Brooks bears S. 2° W., 10 chs.

41.95 White Clay creek, 10 lks. wide, 12 ins. deep, course N.W.; thence, through

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

scattering timber bears N.W. and S.E.

52.10 Rail road from Rushville Nebr. to Pine Ridge So. Dak., bears N. and S.

55.15 Telephone line, from Rushville Nebr. to Pine Ridge So. Dak., bears N. and S.

Leave level bottom and timber; thence, over mountainous land, bears N. and S.E.; asc. 180 ft. to

67.00 Top of ridge, bears N.W. and S.E.; desc. 120 ft. to

74.50 Bottom of ravine, 60 lks. wide, course S.E.; asc. 130 ft. to

80.12 The cor. of secs. 11, 12, 13, and 14

Land, level and mountainous.

Soil, sandy clay loam; 2" rate.

Timber, elm and box-elder.

Mountainous land, 34.97 chs.

S. 0° 1' E.,

dist. frac. secs. 13 and 14.

Over mountainous land, asc. 30 ft. to

2.20 Point of ridge, bears N.W., desc. 120 ft. to

7.40 Bottom of ravine, 30 lks. wide, course E.; asc. 90 ft. to

11.56 Intersect the S. bdy. of Pine Ridge Indian Reservation, 6.47 chs. N. 89° 44' W.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

of the 17 mile cor. on Reservation bdy., which I repaired June 23 1904.

Set an ash post, 3 ft. long, 4 ins sq., with marked stone, 24 ins. in the ground for closing cor. of secs. 13 and 14, marked

C C T34N R45W on N.,

P L on S.,

S13 on E., and

S14 on W. face; with 1 groove on E and 5 grooves on W. face; from which

A pine, 6 ins. diam., bears N. 18° 30' E., 30 lks. dist., marked C C T34N R 45W S13 B T.

A pine, 5 ins. diam, bears N. 58° W., 41 lks. dist.; marked C C T34N R45 W S14 B T.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Timber, a few pines.

Mountainous land, 11.56 chs.

From the cor. of secs. 2, 3, 34, and 35, on N. bdy. of Tp., which I established June 27, 1904.

Subdivision of Township 34N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

I run

S. 0°2' E.,

bet. secs. 2 and 3.

Over mountainous land, ascending.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins., N. and S. of cor., 4 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 3 on W. and 2 on E. face.

51.70 Wagon trail, bears E. and W.

69.50 Top of ascent, stony ridge, 280 ft. above sec. cor. N.; disc. 90 ft. to

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 2, 3, 10, and 11; dig pits, 22x22x12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T34N S 2 on N.E.,

R45W S 11 on S.E.,

S 10 on S.W., and

S 3 on N.W. face, with 5 notches on S.

Subdivision of Township 34N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

and 2 notches on E. edge. From the cor.

A pine, 9 ins. diam., bears N. 71° E., 164 lks. dist.; marked T34N R45W S 2 B.T.

A pine, 10 ins. diam., bears S. 52°30' E., 180 lks. dist., marked T34N R45W S 11 B.T.

A pine, 8 ins. diam., bears N. 54°30' W., 81 lks. dist., marked T34N R45W S 3 B.T.

No other tree for bearing tree.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Mountainous land, 80.00 chs.

N. 89°41' E.,

on a random line bet. secs. 2 and 11.

40.00 Set temp. 1/4 sec. cor.

80.12 Intersect N. and S. line 12 lks. S. of cor. of secs. 1, 2, 11, and 12.

Thence I run

S. 89°36' W.,

on a true line bet. secs. 2 and 11.

Over mountainous land, asc. 50 ft. to

4.00 Stony ridge, bears N.E. and S.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

13.50 Stony ridge, bears NW. and SE.; disc. 75 ft. ☆

27.25 Bottom of ravine, 20 lks. wide, course N.; asc. 70 ft. ☆

31.00 Top of ridge, bears N. and S.; disc. 140 ft. ☆

36.40 Bottom of ravine, 40 lks. wide, course N.; asc. 170 ft.

40.06 Deposit a marked stone, 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins, E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins in the ground, marked 1/4 S 2 on N. and 11 on S. face.

51.50 Top of ridge, bears N. and S.; entr scattering pine timber, bears N. and S.; disc, 200 ft. ☆

62.00 Cheyenne canyon, 50 lks. wide, course NE.; ash, elm, cedar and cottonwood timber along bottom; asc. 200 ft. ☆

80.12 The cor. of secs. 2, 3, 10, and 11.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Timber, pine, ash, elm, cedar and cottonwood.

Mountainous land, 80.12 chs

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

S. 0° 2' E.,

bet. secs. 10 and 11.

Over mountainous land, through scattering pine timber, bears NE. and SW.; disc. 200 ft. ☆

34.50 Bottom of ravine, 20 lks. wide, course NE.; asc. 200 ft.

40.00 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins, N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 10 on W. and 11 on E. face.

No trees for bearing trees.

49.60 Top of ridge, bears NE. and SW.

58.20 Point of ridge, bears SW.

65.70 Point of ridge, bears NW.; disc. 200 ft. ☆

77.30 Bottom of ravine, 60 lks. wide, course NE.; asc. 50 ft. ☆

80.00 Set an ash post, 3 ft. long, 4 ins sq., with marked stone, 24 ins. in the ground for cor. of secs. 10, 11, 14, and 15, marked

T 34 N S 11 on NE.,

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

R 45 W S 14 on S E.,
S 15 on S W. and
S 10 on N W. face; with 4 notches on S. and 2 notches on E. edge; from which

a pine, 16 ins. diam., bears N. 63° E., 20 lks. dist., marked T 34 N R 45 W S 11 B T.

a cedar, 6 ins. diam., bears S. 27° 40' E., 42 lks. dist., marked T 34 N R 45 W S 14 B T.

a pine, 12 ins. diam., bears S. 75° 20' W., 264 lks. dist., marked T 34 N R 45 W S 15 B T.

a pine, 7 ins. diam., bears N. 30° W., 246 lks. dist., marked T 34 N R 45 W S 10 B T.

Land, mountainous.
Soil, sandy clay loam; 2nd rate.
Timber, pine.
Mountainous land, 80.00 chs.

N. 89° 36' E.,
on a random line bet. secs. 11 and 14.

40.00 Set temp. 1/4 sec. cor.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

79.86 Intersect N. and S. line 12 lks. N. of cor. of secs. 11, 12, 13, and 14.

Thence I run

S. 89° 41' W.,
on a true line bet. secs. 11 and 14.

Over mountainous land, asc. 80 ft. +

3.00 Top of ridge, bears N W. and S E., thence, desc. 120 ft.

10.00 Enter scattering pine timber, bears N. and S.

37.00 Bottom of ravine 100 lks. wide, course S E.; asc. 160 ft.

39.93 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 11 on N. and 14 on S. face.

No trees for bearing trees.

50.70 Point of ridge, bears S.; desc. 140 ft. +

59.00 Bottom of ravine, 30 lks. wide, course N E.; asc. 200 ft. +

72.00 Top of ridge, bears N E. and S W.; desc. 160 ft. +

79.86 The cor. of secs. 10, 11, 14, and 15.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 79.86 chs.

S. 0° 2' E.,
bet. frac. secs. 14 and 15.
Over mountainous land, through scattering pine timber, asc. 180 ft. to
9.20 Top of ridge, bears E. and W.; desc. 30 ft. to
10.70 Intersect S. bdy. of Pine Ridge Indian Reservation 6.44 chs. N. 89° 44' W., & the 18 mile por. on Reservation bdy. which I restored June 23, 1904.
The point for the closing cor. falls on a ledge of soft sandstone, on which I mark
"X" for closing cor. of frac. secs. 14 and 15 with C C on N. and P L on S. side, and 2 grooves on E. and 4 grooves on W. side; from which
A pine, 10 ins. diam., bears N. 53° E., 126 lks. dist., marked C C T34 N R45 W S14 B T.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

A pine, 12 ins. diam., bears N. 62° 20' W., 88 lks. dist., marked C C T34 N R45 W S15 B T.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 10.70 chs.

From the cor. of secs. 3, 4, 33, and 34, on N. bdy. of Tp. which I established June 27, 1904.
I run
S. 0° 2' E.,
bet. secs. 3 and 4.
Over mountainous land, asc. 60 ft. to
7.00 Top of ridge, bears N W. and S E.
17.00 Same ridge, bears N E. and S W.; thence over broken mountainous land, drains E.
22.40 Ravine, 40 lks. wide, 20 ft. deep, comes E.
29.50 Wagon trail, bears E. and W.
40.00 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 4 on W. and 3 on E. face. From the cor.
An ash, 7 ins. diam., bears S. 45° E., 286 lks. dist., marked 1/4 S 3 B T.
An elm, 7 ins. diam., bears S. 57° W., 126 lks. dist., marked 1/4 S 4 B T.

41.00 Ravine, 60 lks. wide, 30 ft. deep, course E.; a few elms and ash along ravine.

55.50 Ravine, 50 lks wide, 40 ft. deep, course E.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 3, 4, 9, and 10; dig pits, 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4 1/2 ft. base, 2 ft. high, over deposit.

In S E. pit drive an ash stake, 2 ft long, 3 ins. sq., 12 ins. in the ground, marked
T 34 N S 3 on N E.,
R 45 W S 10 on S E.,
S 9 on S W., and
S 4 on N W. face; with 5 notches on S. and 3 notches on E. edge

Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, a few ash and elm.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

Mountainous land, 80.00 chs.

N. 89° 41' E.,
on a random line bet. secs. 3 and 10.

40.00 Set temp. 1/4 sec. cor.

79.98 Intersect N. and S. line 12 lks. N. of cor. of secs. 2, 3, 10, and 11.

Thence 2 run

S. 89° 46' W.,
on a true line bet. secs. 3 and 10.
Over mountainous land, desc. 200 ft.

10.00 Bottom of ravine, 20 lks. wide, 60 ft. deep; course N W.

22.00 Foot of descent, bottom of ravine, 50 lks. wide, course N.; asc. 120 ft. +

27.50 Top of ridge, bears N. and S.; desc. 140 ft.

39.99 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins, E. and W. of cor., 4 ft. dist., and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 3 on N. and 10 on S. face.

This cor. is on E. edge of an old disused

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

wagon trail, bears N. and S.

48.00 Bottom of ravine, 100 lks. wide, course N.; asc. 130 ft. ↑

55.50 Top of ridge, bears N. and S.; desc. 140 ft. ↓

69.00 Cedar canyon 150 lks. wide, course N.; springy bottom, timber along bottom. asc. 100 ft. ↑

79.98 The cor. of secs. 3, 4, 9, and 10.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Timber, pine, cedar, cottonwood, elm and box-elder, in cotton.

Mountainous land, 79.98 chs.

Heavy clouds prevented an observation for latitude at noon this day.

July 4, 1904.

S. 0° 2' E.,

bet. secs. 9 and 10.

Over mountainous land, draining E.

11.40 Bottom of ravine, 30 lks. wide, 50 ft. deep, course E.

31.20 Bottom of ravine, spring branch, 2 lks. wide, course E., ravine, 60 ft. deep;

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

thence, through scattering pine timber bears N.E. and W.

37.20 Cedar canyon, 10 lks. wide, course N.E., 50 ft. deep,

40.00 Set an ash post, 3 ft. long, 3 ins. sq., with marked stone, 24 ins. in the ground, for 1/4 sec. cor., marked 1/4 S 9 on W. and 10 on E. face; from which

A pine, 11 ins. diam., bears N. 17° E., 160 lks. dist., marked 1/4 S 10 B.T.

A pine, 16 ins. diam., bears N. 52° 40' W., 67 lks. dist., marked 1/4 S 9 B.T.

41.40 Cedar canyon, 15 lks. wide, 60 ft. deep, course N.W.

70.00 Bend of cedar canyon, 20 lks. wide, course N.E., comes from S.E.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 9, 10, 15, and 16, dig pits, 22×22×12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 34 N S 10 on N.E.,

R 45 W S 15 on S.E.,

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

S. 16 on SW. and
S 9 on NW. face; with 4 notches
on S. and 3 notches on E. edge.
No trees near, for bearing trees.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 80.00 chs.

N. 89° 46' E.,
on a random line bet. secs. 10 and 15.

40.00 Set temp. 1/4 sec. cor.

79.80 Intersect N. and S. line 9 lks. N. of cor.
of secs. 10, 11, 14, and 15.

Thence 3 mm

S. 89° 50' W.,
on a true line bet. secs. 10 and 15.

Over mountainous land, through
scattering pine timber, desc. 40 ft. ±

0.75 Bottom of ravine, 60 lks. wide, course
N.; asc. 190 ft. ±.

9.00 Top of ridge, bears N. and S.; desc. 160 ft. ±

18.20 Bottom of ravine, 60 lks. wide, course
NW.; asc. 160 ft. ±.

26.60 Top of ridge, bears NW. and SE.; desc.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

180 ft.

39.90 Deposit a marked stone 12 ins. in the
ground for 1/4 sec. cor.; dig pits 22 x 22 x
12 ins., E and W. of cor., 4 ft. dist;
and raise a mound of earth, 3 1/2 ft.
base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2 ins
sq., 12 ins. in the ground, marked 1/4
S 10 on N. and 15 on S. face.
No trees within limits for bearing trees

43.50 Bottom of ravine 40 lks. wide, course NW.;
asc. 120 ft. ±

57.40 Point of ridge, bears S.

62.20 Top of ridge, bears NW. and SE.; desc. 190 ft. ±

75.00 Bottom of ravine, 15 lks. wide, course N.

78.00 Bottom of ravine, 10 lks. wide, course NE., asc.
70 ft. ±

79.80 The cor. of secs. 9, 10, 15, and 16.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 79.80 chs.

S. 0° 2' E.,
bet. frac. secs. 15 and 16.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

Over mountainous land, desc. 70 ft. ±

2.60 Bottom of ravine, 10 lks. wide, course NE.; asc. 80 ft. ±

10.15 Intersect S. bdy. of Pine Ridge Indian Reservation 6.52 chs. N. 89° 43' W. of the 19 mile cor. on Reservation bdy., which I repaired June 23, 1904. ✓ ✓

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 15 and 16; dig pits, 28×22×12 ins., crosswise on each line, N., E., and W., of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In W. pit drive an ash stake 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

CCT 34 N R 45 W on N.,

PL on S.,

S 15 on E., and

S 16 on W. face, with 3 grooves on E. and W. faces.

Land, mountainous.

Soil, sandy clay loam; 2" rate.

Mountainous land, 10.15 chs.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

From the cor. of secs. 4, 5, 32, and 33, on N. bdy. of Tp., which I established June 27, 1904. ✓

I run

S. 0° 3' E.,

bet. secs. 4 and 5.

Over mountainous land, desc. 60 ft. ±

6.10 Craven creek, 10 lks. wide, 3 ins. deep, course E.; a fringe of timber along banks: leave mountainous land, bears NE. and SW.; thence, over hilly land asc.

12.00 From this point a cabin bears W., 1 ch.

40.00 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits, 22×22×12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked ¼ S 5 on W. and 4 on E. face.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 4, 5, 8, and 9; dig pits, 22×22×12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over

deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T34N S4 on N.E.,
R45W S9 on S.E.,
S8 on S.W., and
S5 on N.W. face; with 5 notches on S. and 4 notches on E. edge.

Land, mountainous and hilly.
Soil, sandy clay loam; 2" rate.
Timber, a few elms.
Mountainous land, 6.10 chs.

N. 89° 41' E.,
on a random line bet. secs. 4 and 9.

40.00 Set Temp. 1/4 sec. cor.

79.72 Intersect N. and S. line 14 lks. N. of cor. of secs. 3, 4, 9, and 10.

Thence I run

S. 89° 47' W.,
on a true line bet. secs. 4 and 9.
Over mountainous land, asc. 140 ft. to

25.00 Top of ridge, bears N. and S., desc. 140 ft. to

39.86 Deposit a marked stone, 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22×22

×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 4 on N., and 9 on S. face.

41.50 Bottom of ravine, 60 lks. wide, course N., asc. 130 ft. to

52.50 Top of ridge, bears N. and S.; desc. 150 ft. to

74.00 Bottom of ravine, 40 lks. wide, course N.; asc. 40 ft. to

79.72 The cor. of secs. 4, 5, 8, and 9.

Land, mountainous.
Soil, sandy clay loam; 2" rate.
Mountainous land, 79.72 chs.

The position of the established closing cor. of secs. 5 and 8, on the W. bdy. of Pine Ridge Indian Reservation, as found by retracement of that bdy., book B of surveys executed under this contract is 82.81 chs. S. of the closing cor. of secs. 5 and 32 on N. bdy. of tp. thus precluding a connecting line bet. the said closing cor. and the cor. of

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

secs. 4, 5, 8, and 9. Thence

S. 89° 41' W.,

on true line bet. secs 5 and 8.

Over mountainous land, asc. 100 ft. to

8.00 Top of ridge, bears N.W. and S.E.; desc. 170 ft. to

28.60 Small brook, 1 link wide, course N., in bottom of ravine, 40 lks. wide, course N.: leave mountainous land, bears N. and S.; thence, over rolling land, asc. 120 ft.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins. E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 5 on N. and 8 on S. face.

55.00 Top of ridge, bears N. and S.; desc. 70 ft. to

73.16 Intersect W. bdy. of Pine Ridge Indian Reservation, 8.27 chs. N. 0° 25' E., of the 22 mile cor. on Reservation bdy., which I repaired June 23, 1904.

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. sec.

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

5 and 8; dig pits 28x22x12 ins., crosswise on each line, N., S., and E., of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In N. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

C C T 34 N R 45 W on E.,

P L on W.,

S 5 on N., and

S 8 on S. face, with 1 groove on N. and 5 grooves on S. face.

Land, mountainous and rolling.

Soil, sandy clay loam; 2" rate.

Mountainous land, 28.60 chs.

From the cor. to secs. 4, 5, 8, 9, Thence

S. 0° 3' E.,

bet. secs. 8 and 9.

Over mountainous land, bears N.W. and N.E.; asc. 100 ft. to

27.50 Top of ridge, bears N.W. and S.E.; desc. 120 ft.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins., N. and S. of cor., 4 ft. dist.;

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 8 on W. and 9 on E. face.

58.30 Bottom of ravine, 40 lks. wide, course NW; asc. 200 ft. ±

77.70 Top of ridge, bears NW. and SE., pines along ridge top; desc. 100 ft. ±

80.00 Set a sandstone 16×10×7 ins., 11 ins. in the ground for cor. of secs. 8, 9, 16, and 17, marked with 4 notches on S. and E. edges: from which

A pine, 14 ins. diam., bears N. 80° 30' E., 126 lks. dist., marked T34NR45W S9 B.T.

A pine, 10 ins. diam., bears N. 54° 20' W., 182 lks. dist.; marked T 34 N R 45 W S 8 B.T.

No other trees for bearing trees; dig pits, 22×22×12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, W. of cor.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

Timber, a few pines.

Mountainous land, 80.00 chs.

July 5: at this cor., I set off 22° 48' N. on the decl. arc; and at 0h 4.3m p.m., l.m.t., observe the sun on the meridian: the resulting lat. is 42° 56', which is about 0.4 greater than the proper lat. ✓ ✓ ✓

N. 89° 47' E.,

on a random line bet. secs. 9 and 16.

40.00 Set temp. ¼ sec. cor.

79.94 Intersect N. and S. line 16 lks. N. of cor. of secs. 9, 10, 15, and 16.

Thence I run.

✓ S. 89° 54' W.,

on a true line bet. secs. 9 and 16.

Over mountainous land, asc. 120 ft. ±

10.40 Top of ridge, bears N. and S.; pines along top of ridge; desc. 100 ft. ±

16.20 Bottom of ravine, 40 lks. wide, course NW.; asc. 90 ft. ±

23.00 Point of ridge, bears SE.; desc. 140 ft. ±

26.80 Bottom of ravine, 40 lks. wide, course N.;

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

asc. 120 ft. to

31.40 Point of ridge, bears S., desc. 120 ft. to

35.60 Bottom of ravine 60 lks. wide, course N.; asc. 120 ft. to

39.97 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 9 on N. and 16 on S. face.

This cor. is on point of ridge, bears S.; desc. 130 ft. to

47.00 Bottom of ravine 10 lks. wide, course NE., thence through scattering pine timber bears NE. and SW.; asc 200 ft. to

70.00 Top of ridge, bears NW. and SW.; desc. 100 ft. to

79.94 The cor. of secs. 8, 9, 16, and 17.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, pine.

Mountainous land 79.94 chs.

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

On retracement of W. bdy. of Pine Ridge Indian Reservation I found no trace of the closing cor. of secs. 8 and 17, from the West, therefore

I run

S. 89° 41' W.,

on a true line bet. frac. secs. 8 and 17.

Over mountainous land through scattering pine timber; asc. 180 ft. to

18.60 Top of ridge, bears N. and S.

28.40 Top of ridge, bears NW. and SE.; desc. 200 ft. to

38.30 Bottom of ravine, 40 lks. wide, course N.; asc. 50 ft. to

40.00 Deposit a marked stone, 2 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins sq., 12 ins. in the ground, marked 1/4 S. 8 on N. and 17 on S. face.

No trees for bearing trees: this 1/4 sec. cor. is on point of ridge, bears S.; desc. 40 ft. to

43.20 Bottom of ravine, 20 lks. wide, course NE., asc. 200 ft. to

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

66.00 Top of ridge, bears N. and S.; desc. 100 ft. to
73.52 Intersect W. bdy. of Pine Ridge Indian Reservation, 8.60 chs. N. 0° 27' E., of the 21 mile cor. on Reservation bdy. which I repaired June 23, 1904.

Set a sandstone 18 x 18 x 3 ins., 12 ins. in the ground for closing cor. of frac. secs. 8 and 17, marked C C on E. and PL on W., with 2 grooves on N. and 4 grooves on S. face; from which

A pine, 15 ins. diam., bears N. 85° E., 362 lks. dist., marked C C T34NR45WS8BT.

A pine, 18 ins. diam., bears S. 4° E., 230 lks. dist., marked C C T34NR45WS17BT.

Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 73.52 chs.

From the cor. of secs. 8, 9, 16, 17. I run S. 0° 3' E.,

[illegible] bet. frac. secs. 16 and 17.

Over mountainous land, through very scattering pine timber; desc. 130 ft. to

Subdivision of Township 34 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

9.81 Intersect the S. bdy. of the Pine Ridge Indian Reservation 6.44 chs. N. 89° 43' W. of the 20 mile cor. on Reservation bdy. which I restored June 23, 1904.

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 16 and 17; dig pits, 22 x 22 x 12 ins., crosswise on each line, N., E., and W. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In W. pit drive an ash stake, 2 ft. long, 3 ins. sq. 12 ins. in the ground, marked

C C T34NR45W on N.,
PL on S.,
S16 on E., and
S17 on W. face; with 4 grooves on E. and 2 grooves on W. face.

No trees for bearing trees.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine.
Mountainous land, 9.81 chs.

I return to the meridian established

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

June 21, 1904, near the N.E. cor. of the Tp., and, at 3.40 p.m., l.m.t., set off 42°58' on the lat. arc; 22°47' N. on the decl. arc, and find the meridian thus determined with the solar practically agrees with the meridian established from Polaris observations; therefore, I conclude that the adjustments of the instrument are correct.

July 5, 1904.

General Description.

The surface of this frac. Tp. is generally very rough and broken, mountainous land, covered with scattering pine timber. There is some level and rolling land, along White Clay creek on the E., and Craven creek in the NW. part, and considerable good elm, ash, boxelder and cottonwood timber is found along these creeks and in the large ravines. The soil is all a

Subdivision of Township 34 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

sandy clay loam; 2" rate. Sandstone of a very soft character is found throughout the rough land.

Settlers have squatted on all the tillable land, along the creeks.

George W. Batts.
U.S. Deputy Surveyor.

Township Range

West of the th Principal Meridian.

CHAINS.

LIST OF NAMES.

A list of the names of the individuals employed by George W. Bates U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the ~~subdivision lines of the unsurveyed portions of Tws. 34 and 35 N., Rs. 44 and 45~~ subdivision lines of T.34 N.,R.45,

W. of the 6" Principal meridian in ~~South Dakota~~ Nebraska, showing the respective capacities in which they acted:

James W. Dawson chainman
Charles H. Townsend chainman
Carlos G. Bates mound man
James L. Wilson flagman

FINAL OATHS OF ASSISTANTS.

WE HEREBY CERTIFY that we assisted George W. Bates, U. S. Deputy Surveyor, in surveying all those parts or portions of the subdivision lines of the unsurveyed portions of Tps. 34 and 35 N., Rs. 44 and 45

West of the 6th Principal meridian, ~~South Dakota~~ Nebraska, as represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor-General for South Dakota.

James L. Wilson flagman
James W. Dawson, Chainman.
Charles H Townsend, "
Carlos J. Bates, rodman

Subscribed and sworn to before me this 5 day of July, 1904

C. Patterson
Notary Public

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, George W. Bates, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from Frank A. Morris, U. S. Surveyor-General for South Dakota, bearing date of the 30 day of April, 1904 I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, surveyed all those parts or portions of the subdivision lines of the unsurveyed portions of Tps. 34 and 35 N., Rs. 44 and 45

West of the 6th Principal meridian, in ~~South Dakota~~ Nebraska, which are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the manual of surveying instructions and the special written instructions of the U. S. Surveyor-General for South Dakota, and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.

George W. Bates.
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 23 day of July, 1904

W L Dawson
Lev. Lebert

48
300

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., FEB. 9 1905. ~~190~~

The foregoing field notes ~~of the survey of~~ comprised in one book lettered "G" of the survey of the subdivision lines of T.34 N., R.45 W.,

of the 6th principal meridian, in Nebraska, ~~South Dakota~~, executed by George W. Bates. under his contract No. 158, dated April 30, 1904. ~~190~~ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

[signature]
Surveyor-General.
for South Dakota

2926b150-2-02

TRANS. R. L. W. COMPARED B & S

Book "F". No. 7 Ex RH 1
301

FIELD NOTES

OF THE SURVEY OF

the subdivision lines of T. 35 N. of R 45 West of the 6" Principal Meridian,

IN THE STATE OF ~~SOUTH DAKOTA~~ NEBRASKA.

As surveyed by George W. Bates.
United States Deputy Surveyor.

Under his contract No. 158

Dated April 30", 1904

Survey commenced July 1", 1904

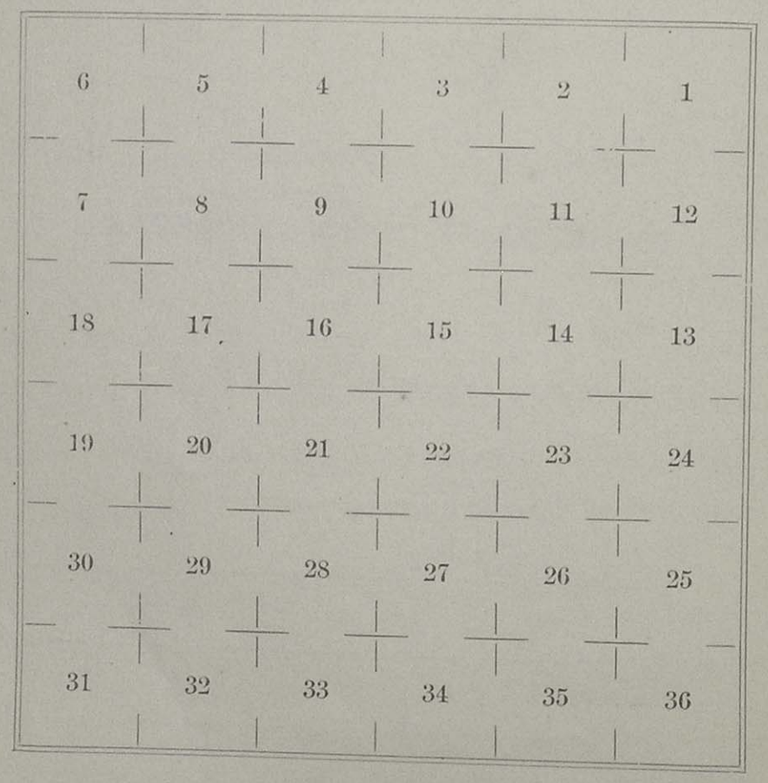
Survey completed July 3", 1904

K

NAMES AND DUTIES OF ASSISTANTS.

James W. Dawson. chainman
Charles H. Townsend. chainman
Carlos G. Bates. moundman
James L. Wilson. flagman

INDEX DIAGRAM. Tp. ..... R. .....



PRELIMINARY OATHS OF ASSISTANTS.

We, ...

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

the survey of the .....

The preliminary oaths of assistants covering the field notes of this T.35 N., R.45 W., are with the field notes of T.35 N., R44 W., book D of surveys executed under this contract.

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this ..... day of ....., 190...

.....

.....

PRELIMINARY OATHS OF ASSISTANTS.

We, ...

.....

.....

do solemnly swear that we will well and truly perform the duties of moundmen 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 .....

.....

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this ..... day of ....., 190...

.....

.....

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

.....

....., *Flagman.*

Subscribed and sworn to before me this ..... day of ....., 190...

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2930b100-2-02

Subdivision of Township 125 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

Survey commenced July 1, 1904, and executed with a Young and Sons light mountain transit No 5705, with a Smiths solar attachment. The instrument is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Huron found correct, and was approved by the surveyor general of South Dakota, June 10, 1904.

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

At the point, about 30.00 chs N. 30°4' W.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

of the old cor. of Tps. 34 and 35 N., Rs. 44 and 45 W., where I established a meridian from Polaris observations, on June 21, 1904; as recorded in field notes of resurvey of Tp. exteriors, Book A. of survey executed under this contract; at 5h 45m p.m., l.m.t., I set off 42°58' N. on the lat. arc; 23°8' N. on the decl. arc, and find the meridian thus determined with the solar practically agrees with the meridian determined from Polaris observations.

July 1, 1904.

July 2: At 6h 15m a.m., l.m.t., I set off 42°58 N. on the lat. arc; 23°5' N. on the decl. arc; and find the meridian thus determined with the solar practically agrees with the meridian established from the Polaris observations: therefore I conclude that the adjustments of the instrument are satisfactory.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

The magnetic bearing of the meridian at 6h 30m a.m., is N. 14°13' W.; the angle thus determined gives the mean mag. decl. 14°8' E., at the Sp. cor.

Under this contract I resurveyed and reestablished the E. bdy. of the Tp., the course of which is North; on June 26, 1904; and I established the S. bdy. of the Tp., the course of which is S. 89°41' W.; on June 27, 1904.

Whenever the words "Pine Ridge Indian Reservation" appear in these notes, reference is made to that portion of it which is in Nebraska, as defined by the Act of March 2, 1889.

I commence at the cor. of secs. 1, 2, 35, and 36, on S. bdy. of Tp., ~~lat. 42°57.8' N., long. 100°34' W.~~; which I established June 27, 1904.

Thence I run

N. 0° 1' W.,

bet. secs. 35 and 36.

Over rolling hilly land.

36.00 Drain, 50 lks. wide, 4 ft. deep, course N.W.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

40.00 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits, 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 35 on W. and 36 on E. face.

79.00 Leave hilly land, bears E. and W.; thence over dry level bottom land, through scattering timber and undergrowth.

80.00 Set a sandstone 18x12x10 ins., 12 ins. in the ground for cor. of secs. 25, 24, 35, and 36; marked with 1 notch on S. and E. edges; from which
An ash, 7 ins. diam., bears N. 50° E., 214 lks. dist., marked T35N R45W S25 B.T.
An ash, 7 ins. diam., bears S. 84° E., 190 lks. dist., marked T35N R45W S36 B.T.
A boxelder, 7 ins. diam., bears S. 73° 20' W., 113 lks. dist., marked T35N R45W S35 B.T.
A cottonwood, 36 ins. diam., bears N. 6° 10' W., 184 lks. dist., marked

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

T35NR45WS26B.T.
Land, hilly and level.
Soil, sandy clay loam; 2" rate.
Timber, elm, ash, boxelder and cottonwood: undergrowth, the same and cherry.

N. 89° 41' E.,
on a random line bet. secs. 25 and 36.

40.00 Set temp. 1/4 sec. cor.

80.06 Intersect E. bdy. of Tp. 6 lks. N. of cor. of secs. 25, 30, 31, and 36, which I reestablished June 26, 1904.

Thence I run

S. 89° 44' W.,
on a true line bet. secs. 25 and 36.
Over level land.

9.00 Desc. 40 ft. ±

13.00 Foot of descent; thence over level bottom land, bears N. and S.

20.00 Enter dense undergrowth, bears N. and S.E.

22.40 White Clay creek, 12 lks. wide, 18 ins. deep, course N.; moderate current; leave bottom, bears N. and S.; asc. 40 ft. ±

24.00 Top of ascent, leave undergrowth, bears N. and S.; thence, over gently rolling land

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

24.80 Mail road from Rushville Nebraska to Pine Ridge South Dakota, bears N. and S.

26.20 Telephone line from Rushville Nebr. to Pine Ridge, South Dakota, bears N. and S.

40.03 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 25 on N. and 36 on S. face.

74.00 Craven creek, 4 lks. wide, 4 ins. deep, course NE.; banks steep, 10 ft. high. A fringe of brush and timber along creek.

77.00 Craven creek, 4 lks. wide, 4 ins. deep, course S E.

80.06 The cor. of secs. 25, 26, 35, and 36.

Land, level and gently rolling.

Soil, sandy clay loam; 2" rate.

Timber, ash and elm; undergrowth the same, with plum, cherry, and willow.

Dense undergrowth, 4.00 chs.

N. 0° 1' W.:

bet. secs. 25 and 26.

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

Over level bottom land through scattering timber and undergrowth.

2.25 Craven Creek, 5 lks. wide, 2 ins. deep, course E., gravel bottom; banks steep, 8 ft. high. Leave level bottom land and timber and undergrowth bear E. and W.; thence over gently rolling land.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 26 on W. and 25 on E. face.

42.00 Shallow drain, course E.

49.00 Wagon trail, bears NW. and S E.

80.00 Set an elm post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground for cor. of secs. 23, 24, 25, and 26; marked

T 35 N S 24 on NE.,
R 45 W S 25 on S E.,
S 26 on S W., and
S 23 on NW. face; with 2 notches

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

on S. and 1 notch on E. edge; dig pits 22x22x12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, W. of cor.

Land, level and gently rolling.

Soil, sandy clay loam; 2" rate.

Timber, ash, elm and cottonwood; undergrowth, cherry.

P.R.I.Res.

N. 89°44' E.,

on a random line bet. secs. 24 and 25.

40.00 Set temp. ¼ sec. cor.

80.10 Intersect E. bdy. of Tp., 5 lks. N. of cor. of secs. 19, 24, 25, and 30, which I established June 26, 1904.

Thence I run

S. 89°46' W.,

on a true line bet. secs. 24 and 25.

Over level land.

4.00 Descend 40 ft., bears N. and S.,

7.00 Cross level bottom land; thence through dense undergrowth and scattering timber, bears N. and S.

10.25 White Clay creek, 15 lks. wide, 6 ins.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

deep, course N., moderate current.

11.00 Leave undergrowth and timber, bears N. and S.

30.00 Leave level bottom land, bears N. and S.; thence over gently rolling land.

40.05 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground marked ¼ S 24 on N. and 25 on S. face

44.00 Shallow drain, course NE.

66.00 Shallow drain, course N.

80.10 The cor. of secs. 23, 24, 25, and 26.

Land, level and gently rolling.

Soil, sandy clay loam; 2" rate.

Timber, ash, elm, and box-elder; undergrowth same and plum and cherry.

Dense undergrowth, 4.00 chs.

N. 0°1' W.,

bet. secs. 23 and 24.

Over gently rolling land.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

10.00 Drain, 60 lks. wide, 3 ft. deep, course NE.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive a cedar stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 23 on W. and 24 on E. face.

45.00 Drain, 40 lks. wide, 2 ft. deep; course E.

58.00 Wagon trail, bears NW. and SE.

69.38 Intersect N. bdy. of state, 3.08 chs. S. 89° 42½' E. of the 149 mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and 149 M. on E. face.

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 23 and 24; dig pits 28x22x12 ins., crosswise on each line, E., W., and S. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In E. pit drive a cedar stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

C C T35N R45W on S.,
S 24 on E.,
S 23 on W., and
S D on N. face; with 1 groove on E., and 5 grooves on W. face.

Land, gently rolling.

Soil, sandy clay loam; 2" rate.

P. R. I. Res

July 2: at the cor. of secs. 2, 3, 34, and 35, on S. bdy. of Tp., which I established June 27, 1904; at 0h 38m p.m., l.m.t., I set off 23° 3' N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 42° 58', which is about 0.5 greater than the proper lat.

Thence I run N. 0° 2' W., bet. secs. 34 and 35

Over mountainous land, desc. 110 ft.

20.00 Bottom of ravine, 100 lks. wide, course NW.;

29.50 Bottom of ravine, 100 lks. wide, course NE., asc. 40 ft.

34.00 Top of ascent, leave mountainous land

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

bears NE. and NW.; thence over level land.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x 22x12 ins, N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 34 on W. and 35 on E. face.

48.30 Craven Creek, 4 lks. wide 5 ins. deep, course E.; banks steep, 3 ft. high. A fringe of timber and brush along creek banks.

56.00 Leave level land; thence over mountainous land, bears E. and W.; asc. 180 ft. ±

80.00 Deposit a marked stone, 12 ins. in the ground, for cor. of secs. 26, 27, 34, and 35; dig pits, 22x 22x 12 ins, in each sec., 4 ft. dist.; and raise a mound of earth, 4 1/2 ft. base, 2 ft. high, over deposit.

In SE. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked T35N S26 on NE.,
R45W S35 on SE

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

S34 on SW., and
S27 on NW. face; with 1 notch on S., and 2 notches on E. edge.

This cor. is on point of ridge, bears NW.

Land, mountainous and level.

Soil, sandy clay loam; 2" rate.

Timber, box elder, elm and ash.

Mountainous land, 58.00 chs.

N. 89° 41' E.,
on a random line bet. secs. 26 and 35.

40.00 Set temp. 1/4 sec. cor.

79.94 Intersect N. and S. line 12 lks. N. of cor. of secs. 25, 26, 35, and 36.

Thence I run

S. 89° 46' W.,
on a true line bet. secs. 26 and 35.

Over level bottom land, through dense undergrowth and scattering timber.

5.15 Craven Creek, 4 lks. wide, 6 ins. deep, course NE., moderate current.

5.50 Leave level bottom, dense undergrowth and scattering timber, bear NE. and SW.; asc. 30 ft. ±

8.60 Top of ascent, bears NE. and SW.; thence,

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

over level land.

13.75 From this point a cabin bears S., 60 lks. dist.

39.97 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 26 on N. and 35 on S. face.

43.40 Wagon trail, bears NE. and SW.; leave level land, and asc. 140 ft. over mountainous land, bears NE. and SW., to

65.00 Top of ridge, bears N. and S., desc. 150 ft. to

70.00 Bottom of ravine, 60 lks. wide, course S.; asc. 170 ft. to

79.94 The cor. of secs. 26, 27, 34, and 35.

Land, level and mountainous.

Soil, sandy clay loam; 2nd rate.

Timber, elm, ash, and box elder; undergrowth the same, and plum and cherry.

Mountainous land or dense undergrowth, 42.04 chs.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

N. 0° 2' W.,

bet. secs. 26 and 27.

Over broken mountainous land.

11.00 Leave mountainous land, bears E. and W.; thence over rolling hilly land

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 27 on W. and 26 on E. face.

60.00 Drain, 200 lks. wide, 4 ft. deep, course E.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 22, 23, 26, and 27; dig pits 22x22x12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit

In SE. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

T 35 N S 23 on NE.,

R 45 W S 26 on SE.,

S 27 on SW., and

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian

CHAINS.

S 22 on NW face, with 2 notches on S. and E. edges.
Land, mountainous and rolling hilly.
Soil, sandy clay loam; 2" rate.
Mountainous land, 11.00 chs.

N. 89° 46' E,
on a random line bet. secs. 23 and 26.
40.00 Set temp. 1/4 sec. cor.
79.96 Intersect N. and S. line 16 lks. S. of cor. of secs. 23, 24, 25, and 26.
Thence I run
S. 89° 39' W,
on a true line bet. secs. 23 and 26.
Over rolling land.
9.00 Shallow drain, course NE.
18.05 Wagon trail, bears NW. and SE.
39.98 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long 3 ins. sq., 12 ins. in the ground, marked 1/4 S 23 on N. and 26 on S. face.

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

78.00 Drain, 60 lks. wide, 2 ft. deep, course SE.
79.96 The cor. of secs. 22, 23, 26, and 27.
Land, rolling.
Soil, sandy clay loam; 2" rate.

N. 0° 2' W,
bet. secs. 22 and 23.
Over rolling land.
1.00 Drain, 60 lks. wide, 2 ft. deep, course SE.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor., dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 22 on W. and 23 on E. face.
From the cor.
An elm, 7 ins. diam., bears N. 33° 40' E, 186 lks. dist., marked 1/4 S 23 B T.
An elm, 15 ins. diam, bears N. 10° W, 284 lks. dist., marked 1/4 S 22 B T.
43.00 Ravine, 200 lks. wide, 40 ft. deep, course E., scattering elms along ravine.
69.92 Intersect N. bdy of state 2.90 chs. S. 89° 56'

Subdivision of Township 35 N., Range 45
West of the Sixth Principal Meridian.
CHAINS.

E., of the 150 mile monument on interstate bdy. W. of the initial point, which is a quartzite stone 12 ins. sq., 4 ft. above ground, marked SD. on N., N. on S., and 150 M. on E. face.
Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 22 and 23; dig pits 28 x 22 x 12 ins., crosswise on each line, E., W., and S. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2½ ft. high, over deposit.
In E pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
C C T 35 N R 45 W on S,
SD on N.,
S 23 on E., and
S 24 on W. face; with 2 grooves on E. and 4 grooves on W. face.
Land, rolling.
Soil, sandy clay loam; 2" rate.
Timber, a few elms.

From the cor. of secs. 3, 4, 33, and 34, on S. bdy. of Tp., which I established

Subdivision of Township 35 N., Range 45
West of the Sixth Principal Meridian.
CHAINS.

June 27, 1904.
I run
N. 0° 2' W.,
bet. secs. 33 and 34.
Over mountainous land, desc. 125 ft.
15.70 Enter heavy timber, bears E. and W.
16.70 Foot of descent, leave mountainous land, bears E. and W.; thence over level bottom land through heavy timber, bears E. and W.
23.00 Craven creek, 6 lks. wide, 3 ins. deep, course E., low sloping banks. Leave bottom and timber bear E. and W.; thence over mountainous land, asc. 130 ft.
40.00 Deposit a marked stone 12 ins. in the ground, for ¼ sec. cor.; dig pits 22 x 22 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked ¼ S 23 on W. and 34 on E. face.
42.00 Point of ridge, bears N.W., desc. 110 ft. to
55.00 Bottom of ravine, 100 lks. wide, course S E.; asc. 100 ft.
77.00 Ravine bottom, 5 lks. wide, 30 ft. deep,

Subdivision of Township 35 N. Range 45
West of the Sixth Principal Meridian.

CHAINS.

course S.W.,
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 27, 28, 33, and 34; dig pits 22x22x12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.
In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T35N S27 on N.E.,
R45W S34 on S.E.,
S33 on S.W., and
S28 on N.W. face, with 1 notch on S., and 3 notches on E. edge.

From the cor.

A pine, 13 ins. diam., bears S. 88°20' W., 115 lks. dist., marked T35N R45W S33 B.T.
A pine, 15 ins. diam., bears N. 50° W., 58 lks. dist., marked T35N R45W S28 B.T.
No other trees for bearing trees.
Land, mountainous and level.
Soil, sandy clay loam; 2nd rate.
Timber, box elder, elm and cottonwood.
Mountainous or heavily timbered land,

Subdivision of Township 35 N. Range 45
West of the Sixth Principal Meridian.

CHAINS.

80.00 chs.

July 2, 1904.

N. 89°41' E.,
on a random line bet. secs. 27 and 34.
40.00 Set temp. ¼ sec. cor.
80.30 Intersect N. and S. line 2 lks. S. of cor. of Secs. 26, 27, 34, and 35.

Thence I run

S. 89°40' W.,
on a true line bet. secs. 27 and 34.
Over mountainous land desc. 160 ft. to
23.00 Bottom of ravine, 2.50 chs. wide, course S a few elms along ravine; asc. 160 ft. to
36.00 Top of ridge, bears N. and S.E.; desc. 160 ft.
40.15 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits 22x22x12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked ¼S 27 on N. and 34 on S. face.
48.50 Bottom of ravine, 150 lks. wide, course S.E., a few elms and pines along ravine bottom; asc. 170 ft. to

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

74.00 Top of ridge, bears N. and S. desc. 100 ft. +
80.30 The cor. of secs. 27, 28, 33, and 34,
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, elm and pine.
Mountainous land, 80.30 chs.

N. 0° 2' W.,
bet. secs. 27 and 28.
Over broken mountainous land, across small ravines, course SW.; asc. 60 ft. +
23.00 Top of ridge, and wagon trail, bear E. and W.; desc. 140 ft.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 2 ft. high, over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 28 on W. and 27 on E. face.
44.00 Bottom of ravine, 150 lks. wide, course E. A few elms along ravine, and pine and cedar timber 8 chs. W. of line; asc. 70 ft.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

53.00 Ravine, 20 lks. wide, 20 ft. deep, course E.
58.00 Top of ascent, leave mountainous land, bears E. and W.; thence over gently rolling land.
80.00 Deposit a marked stone 12 ins. in the ground, for cor. of secs. 21, 22, 27, and 28; dig pits 22 x 22 x 12 ins., in each sec., 4 ft. dist.; and raise a mound of earth, 4 1/2 ft. base, 2 ft. high, over deposit.
In S E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T 35 N S 22 on N E.
R 45 W S 27 on S E.,
S 28 on S W., and
S 21 on N W. face; with 2 notches on S. and 3 notches on E. edge.
Land, mountainous and gently rolling.
Soil, sandy clay loam; 2" rate.
Timber, a few elms.
Mountainous land, 58.00 chs.

N. 89° 40' E.,
on a random line bet. secs. 22 and 27.
40.00 Set temp. 1/4 sec. cor.

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

80.10 Intersect N. and S. line 9 lks. N. of cor. of secs. 22, 23, 26, and 27.

Thence Run

S. 89° 44' W.,

on a true line bet. secs. 22 and 27.

Over rolling land, ascending.

40.05 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., E. and W. of cor., 4 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 22 on N. and 27 on S. face.

40.25 Shallow drain, course N E.

70.00 Shallow drain, course S E.

80.10 The cor. of secs. 21, 22, 27, and 28.

Land, rolling.

Soil, sandy clay loam; 2" rate.

N. 0° 2' W.,

bet. secs. 21 and 22.

Over gently rolling land.

1.40 Shallow drain, course S E.

3.90 Wagon trail, bears E. and W.

Subdivision of Township 35 N. Range 45

West of the Sixth Principal Meridian.

CHAINS.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22x22x12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 21 on W. and 22 on E. face.

55.00 Ravine 200 lks. wide, 40 ft. deep, course E.

70.36 Intersect N. bdy. of state 2.50 chs. S. 89° 56' E., of the 151 mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 12 ins. sq., 4 ft. above ground, marked S.D. on N., N. on S., and 151 M. on E. face.

Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 21 and 22; dig pits 28x22x12 ins., crosswise on each line, S., E., and W., of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked

C C T 35 N R 45 W on S.,

SD on N,
S 22 on E., and
S 21 on W. face; with 3 grooves on E. and W. faces.
Land, gently rolling.
Soil, sandy clay loam; 2" rate.

July 3: at the cor. of secs. 4, 5, 32, and 33, on S. bdy. of Tp., which I established, June 27, 1904: at 9h 30m a.m., l.m.t., I set off 43°58' on the lat. arc; 22° 59' N. on the decl. arc, and determine a meridian with the solar.

Thence I run

N. 0°3' W.,

bet. secs. 32 and 33.

Over mountainous land, desc. 70 ft. to
4.00 Bottom of ravine, 40 lks. wide, course S.E.; asc. 100 ft. to
15.00 Top of ridge, bears NW. and SE.; desc. 90 ft. to
24.00 Bottom of ravine, 80 lks. wide, course S.E.; a few elms along ravine; asc. 190 ft.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and

raise a mound of earth, 3½ ft. base, 2 ft. high over deposit.
In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 32 on W. and 33 on E. face.
49.00 Top of ridge, bears S.E. and W.; desc. 170 ft. to
71.00 Bottom of ravine, 180 lks. wide, course E.; ash, elm, pine, and cedar timber along ravine; asc. 120 ft. to
76.50 Top of ridge, bears NW. and S.E.; desc. 120 ft. to
80.00 Set an ash post, 3 ft. long, 5 ins. sq., with marked stone 24 ins. in the ground for cor. of secs. 28, 29, 32, and 33, marked

T35N S28 on NE.,
R45W S33 on SE.,
S32 on SW., and
S29 on NW. face; with 1 notch on S. and 4 notches on E. edge; from which

An elm, 7 ins. diam., bears N. 64°20' E., 98 lks. dist., marked T35N R45W S28 B.T.
An elm, 7 ins. diam., bears S. 68°40' E., 119 lks. dist., marked T35N R45W S33 B.T.
A pine, 13 ins. diam., bears S. 89° W.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

40 lks. dist., marked T35NR
45 W S32 BT.
A pine, 6 ins. diam., bears N. 50°30'
W., 64 lks. dist., marked T35N
R45W S29 BT.
This cor. falls on SW. edge of ravine,
course SE., heavy timber along ravine.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, pine, ash, elm, and cedar.
Mountainous land, 80.00 chs.

N. 89°41' E.,

on a random line bet. secs. 28 and 33

40.00 Set temp. 1/4 sec. cor.

79.78 Intersect N. and S. line 3 lks. S. of cor.
of secs. 27, 28, 33, and 34.

Thence I run

S. 89°40' W.,

on a true line bet. secs. 28 and 33.
Over mountainous land, desc. 40 ft. to
4.00 Bottom of ravine, 40 lks. wide, course S.;
a few pines along ravine; asc. 130 ft. to
10.00 Top of ridge, bears N. and S.; desc. 160 ft. to
31.50 Bottom of ravine, 40 lks. wide, course S.;

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

elm and pine timber along ravine.
37.00 Bottom of ravine, 100 lks. wide, course
SE.; elm and pine timber along bottom
and sides of ravine; asc. 140 ft.
39.89 Deposit a marked stone 12 ins. in the
ground for 1/4 sec. cor.; dig pits 22x
22x12 ins. E. and W. of cor., 4 ft. dist.;
and raise a mound of earth, 3½ ft.
base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 2
ins. sq., 12 ins. in the ground, marked
1/4S 28 on N. and 33 on S. face. From the cor.
A pine, 14 ins. diam., bears N. 42° 5'
W., 120 lks. dist., marked 1/4S 28 BT.
A pine, 6 ins. diam., bears S. 29°30' W.,
49 lks. dist., marked 1/4S 33 BT.
54.00 Top of ridge, bears NW. and SE.; desc. 120 ft. to
65.00 Bottom of ravine, 20 lks. wide, course SE.;
pines along sides of ravine; asc. 110 ft. to
68.50 Top of ridge, bears N. and S.; desc. 120 ft. to
79.78 The cor. of secs. 28, 29, 32, and 33.
Land, mountainous.
Soil, sandy clay loam; 2" rate.
Timber, elm and pine.
Mountainous land, 79.78 chs.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

S. 89° 41' W.,
on a random line bet. frac. secs. 29 and 32.

40.00 Set temp. 1/4 sec. cor.

71.88 Intersect W. bdy. of the Pine Ridge Indian Reservation, 13 lks. N. of the closing cor. of frac. secs. 29 and 32, already described.

Thence I run

N. 89° 35' E.,
on a true line bet. frac. secs. 29 and 32.

Over mountainous land, asc. 60 ft. to

7.00 Top of ridge, bears N. and S.; disc. over broken land, ravine course S.

9.50 Wagon trail, bears NE. and S.

20.00 Bottom of ravine, 40 lks. wide, 40 ft. deep, course SE.

31.88 Deposit a marked stone 12 ins. in the ground, for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 29 on N. and 32 on S. face.

35.00 Bottom of ravine, 20 lks. wide, 50 ft. deep, course S.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

56.00 Top of ridge, bears N. and S.; disc. 150 ft. to

71.88 The cor. of secs. 28, 29, 32, and 33.

Land, mountainous.

Soil, sandy clay loam; 2nd rate.

Mountainous land, 71.88 chs.

July 3: at this cor., I set off 22° 58' N. on the decl. arc; and at 0h 4.0m p.m., l.m.t., observe the sun on the meridian: the resulting lat. is 42° 58', which is about 0'.4 less than the proper lat.

N. 0° 3' W.,
bet. secs. 28 and 29.

Over mountainous land, through scattering timber, in ravine bottom course S.

7.80 Leave timber and ravine bottom, comes from NW.; asc. 200 ft.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

In S. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 29 on W. and 28 on E. face.

47.00 Top of ridge, bears N.W. and S.E.; disc. 120 ft. ±

62.00 Bottom of ravine, 30 lks. wide, course E.; asc. 70 ft. ±

73.00 Top of ridge, leave mountainous land, bears E. and W.; thence, over hilly land

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 20, 21, 28, and 29; dig pits, 22 x 22 x 12 ins, in each sec, 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.

In S.E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
T35N S21 on N.E.,
R45W S28 on S.E.,
S29 on S.W., and
S20 on N.W. face; with 2 notches on S. and 4 notches on E. edge.

Land, mountainous and hilly.
Soil, sandy clay loam; 2nd rate.
Timber, elm, pine, and box elder.
Mountainous land, 73.00 chs.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

N. 89° 40' E.,
on a random line bet. secs. 21 and 28.

40.00 Set temp. 1/4 sec. cor.

79.70 Intersect N. and S. line 3 lks. S. of cor of secs. 21, 22, 27, and 28.

Thence I run

S. 89° 39' W.,
on a true line bet. secs. 21 and 28.

Over rolling land, asc. 130 ft.

10.00 Shallow drain, course N.E.

26.70 Wagon trail bears N.E. and S.W.

39.85 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins, E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.

In E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 21 on N. and 28 on S. face.

40.00 Top of ascent, leave rolling land, bears N. and S.; disc. 60 ft. over mountainous land, ±

45.00 Bottom of ravine, 5 lks. wide, course N.; asc. 110 ft. ±

58.00 Top of ridge, bears N. and S.; disc. 70 ft. ±

61.20 Bottom of ravine, 20 lks. wide, course N.;

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

pine timber along ravine.

73.00 Ravine 60 lks. wide, course N.E.; asc. 60 ft. ±

79.70 The cor. of secs. 20, 21, 28, and 29.

Land, rolling and mountainous.

Soil, sandy clay loam; 2" rate.

Timber, pine.

Mountainous land, 39.70 chs.

On retracement of the 25" mile of the Reservation bdy., I found no closing cor. of secs. 20 and 29, as recorded in book B of surveys executed under this contract. Therefore

I run

S. 89°41' W.,

on a true line bet. frac. secs. 20 and 29.

Over mountainous land, asc. 30 ft. ±

4.00 Top of ridge, bears N. and S.; desc. 140 ft. ±

18.50 Bottom of ravine, 60 lks. wide, course N.; a few elms along ravine; asc. 175 ft.

31.00 Ravine, 20 lks. wide, 30 ft. deep, course N.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits, 22×22×12 ins., E. and W. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

base, 2 ft. high, over deposit.

On E. pit drive an ash stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S 20 on N. and 29 on S. face.

46.40 Top of ascent, stony ridge, bears N. and S.; (called Cheyenne Buttes) a few pines along top of ridge: desc. 200 ft.

58.60 Wagon trail, bears N. and S.

71.05 Intersect W. bdy. of the Pine Ridge Indian Reservation, 7.43 chs. N. 0°16' E. of the 25 mile post, which I restored June 24, 1904.

Set an ash post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground for closing cor. of frac. secs. 20 and 29, marked

CCT35NR45W on E.,

PL on W.,

S20 on N., and

S29 on S. face; with 2 grooves on S., and 4 grooves on N. face; dig pits 28×22×12 ins., crosswise on each line N. and S., 3 ft. and E. of post, 7 ft. dist., and raise a mound of earth, 4½ ft. base, 2 ft. high, E. of cor.

Land, mountainous

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

Soil, sandy clay loam; 2" rate.
Timber, a few elms and pines.
Mountainous land, 71.08 chs.

From the cor. to secs. 20. 21. 28. 29 I run
N. 0° 3' W.,
bet. secs. 20 and 21,
Over hilly land, dist. 100 ft. to
25.00 Leave hilly land; thence, over mountainous land, bears E. and W., dist. 120 ft. to
37.00 Bottom of ravine, 200 lks. wide, course E.; dist. 180 ft.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 22 x 22 x 12 ins., N. and S. of cor., 4 ft. dist.; and raise a mound of earth, 3½ ft. base, 2 ft. high, over deposit.
In S. pit drive a cedar stake, 2 ft. long, 2 ins. sq., 12 ins. in the ground, marked 1/4 S. 20 on W. and 21 on E. face.
60.00 Top of ridge, bears E. and W.; dist. 60 ft. to
70.85 Intersect N. bdy. of state 2.46 chs. N. 89° 59½ E. of the 1 & 2 mile monument on interstate bdy. W. of the initial point, which is a quartzite stone, 12 ins.

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

sq., 4 ft. above ground, marked S. D. on N., N. on S., and 1 & 2 M. on E. face.
Deposit a marked stone 12 ins. in the ground for closing cor. of frac. secs. 20 and 21; dig pits, 28 x 22 x 12 ins., crosswise on each line, E., W., and S. of cor., 4 ft. dist.; and raise a mound of earth, 4½ ft. base, 2 ft. high, over deposit.
In E. pit drive an ash stake, 2 ft. long, 3 ins. sq., 12 ins. in the ground, marked
CCT 35 N R 45 W on S;
SD on N.,
S 21 on E., and
S 20 on W. face; with 4 grooves on E., and 2 grooves on W. face.
Land, hilly and mountainous.
Soil, sandy clay loam; 2" rate.
Mountainous land, 45.85 chs.

July 3, 1904.

I next test the adjustments of the solar by an observation on a meridian established from Polaris observations, and find them correct,

at the point near the cor. of Ths. 34 and 35 N., Rs. 44 and 45 W., on July 4, 1904, as described in field notes of subdivision of T. 34 N., R. 45 W., book G. of surveys executed under this contract.

General Description.

This frac. Tp. is rolling in the northeast, hilly in the central and mountainous in the western part. The soil is all a sandy clay loam, a good 2" rate soil. The Tp. is watered by White Clay creek flowing N. through the eastern part, and Craven Creek flowing N.E., through the central part. White Clay creek is a good pure stream of water, flowing about 11 cubic ft. per second, with a fall of 40 ft. per mile. The bottoms along this creek, and some of the higher bottoms, are subject to irrigation, and under irrigation will raise

splendid crops. Craven creek flows about 1 cubic ft. per second, and Patten creek about 3 cubic ft. per second.

Ash, elm, box elder and cottonwood timber is plentiful along the creeks, and some pine and cedar in the western ravines.

Settlers have squatted on all the land along the creeks, and on the land containing timbered ravines.

George W. Bates.
U.S. Deputy Surveyor.

Subdivision of Township 35 N., Range 45 W

West of the Sixth Principal Meridian

CHAINS.

Field Notes
of the
Description of Corners
of the
Pine Ridge Indian Reserve
in
Section 24
of
Township 35 North
of
Range 45 West
within the
Sioux Indian Reserve

For Survey See page

Supplimentary report.

Section 24, of T. 35 N., of R. 45 W.; reserved as a part of the Pine Ridge Indian Reservation in South Dakota.

The executive order of February 20, 1904, modified the executive order of January 25, 1904, so as to retain as a portion of the Pine Ridge Indian Reservation in South Dakota; "The section of land embracing the Pine Ridge Boarding School, Irrigation Ditch and School Pasture."

This sec. I find to be sec. 24, of T. 35 N., of R. 45 W., recently surveyed by me under my contract No. 158, as described in the foregoing field notes.

In order to indicate, on the ground, that this is the sec. thus reserved, I additionally

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

mark its several cors. as follows:

The closing cor. of frac. Tps. 35 N., Rs. 44 and 45 W., & mark P R I R on W. face.

The stake at the 1/4 sec. cor. on line bet. secs. 19 and 24, on E. bdy of T. 35 N., R. 45 W., & mark P R I R on W. face.

The stake at the cor. of secs. 19, 24, 25, and 30; on E. bdy. of T. 35 N., R. 45 W., & mark P R I R on NW. face.

The stake at 1/4 sec. cor. bet. secs. 24 and 25; T. 35 N., R. 45 W., & mark P R I R on N. face.

The post for cor. of secs. 23, 24,

Subdivision of Township 35 N., Range 45

West of the Sixth Principal Meridian.

CHAINS.

25, and 26, T. 35 N., R. 45 W., & mark P R I R on N E. face.

The stake at the 1/4 sec. cor. bet. secs. 23 and 24, T. 35 N., R. 45 W., & mark P R I R on E. face.

October 13, 1904
George W. Bates
U.S. Deputy Surveyor

Township Range

West of the th Principal Meridian.

CHAINS.

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, George W. Bates, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from Frank A. Morris, U. S. Surveyor-General for South Dakota, bearing date of the 30 day of april, 190~~4~~ I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, surveyed all those parts or portions of

Sec. 24, of Township 35 North, of Range 45

West of the 6" Principal meridian, in ~~South Dakota~~ Nebraska, which are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the manual of surveying instructions and the special written instructions of the U. S. Surveyor-General for South Dakota, and in the speeific manner described in the field notes, and that the foregoing are the true field notes of such survey; ~~and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.~~

George W. Bates.
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 30 day of Dec, 190~~4~~.

N. L. Dawson Co Clk.

N. E. Hills Dep

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., _____, 190__

The foregoing field notes of the survey of _____

_____ of the _____ meridian, in South Dakota, executed by _____ under his contract No. _____, dated _____, 190__ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

_____

2926b150-2-02 *Surveyor-General*

LIST OF NAMES.

A list of the names of the individuals employed by George N. Bates U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivision lines of T. 35 N. R 45

W. of the 6" Principal meridian in ~~South Dakota,~~ Nebraska showing the respective capacities in which they acted:

James W. Dawson.	chainman
Charles H. Townsend.	chainman
Carlos G. Bates.	moundman
James L. Wilson.	flagman

FINAL OATHS OF ASSISTANTS.

WE HEREBY CERTIFY that we assisted _____

_____, U. S. Deputy Surveyor, in surveying

all those parts or portions of the _____

_____

_____

_____

_____ of the _____ meridian, South Dakota, as represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor-General for South Dakota.

The final oaths of deputy and assistants covering the field notes of this T. 35 N., R. 45 W., are with the field notes of T. 34 N., R. 45 W., book G. of surveys executed under this contract.

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 190___

_____

_____

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, _____, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from _____, U. S. Surveyor-General for South Dakota, bearing date of the _____ day of _____, 190___ I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor-General for South Dakota, the manual of surveying instructions, and the laws of the United States, surveyed all those parts or portions of

_____

_____

_____

_____ of the _____ meridian, in South Dakota, which are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the manual of surveying instructions and the special written instructions of the U. S. Surveyor-General for South Dakota, and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 190___

_____

_____

56
356

APPROVAL.

U. S. SURVEYOR-GENERAL'S OFFICE,

HURON, S. DAK., FEB. 9, 1905, ~~190~~

The foregoing field notes ~~of the survey of~~ comprised in one book lettered "F" of the survey of the subdivision lines of T.35 N., R.45 W.,

of the 6th principal meridian, in Nebraska, ~~South Dakota,~~ executed by George W. Bates, under his contract No. 158, dated April 30, 1904, ~~190~~ having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

2926b150-2-02

Surveyor-General.
for South Dakota.

General Land Office • Original Field Notes

Book Number

750

The images in this file are photographs of the notes of the original surveys of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The original surveys in Nebraska began in the mid 1850's and were completed in the mid 1880's. The Nebraska office of the Surveyor General was closed June 30, 1886.