General Land Office • Original Field Notes

Book Number

772

W.W. Alt - 5th Standard Parallel through T 33 - 41 N

The images in this file are microfilm images of the notes of W.W. Alt resurveys of portions of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The W.W. Alt resurveys began in the mid 1890's and were completed in the early 1900's.

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Duplicate X

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(4—679.)

Received with Letter from W. W. Alt, U. S. Surveyor, dated Sept 13 1896. 98725 — '96

FIELD NOTES

OF THE RE SURVEY OF

Fifth Standard Parallel North,

through Ranges

33, 34, 35, 36, 37, 38, 39, 40 and 41 W.

Of the 6th Principal Meridian,

State of Nebraska

AS SURVEYED BY

Willard W. Alt, U. S. ~~Deputy~~ Surveyor,

Under his Contract ~~No.~~ _____, dated December 26 *1894.*

Survey commenced April 8 *, 1895.*

Survey completed July 30 *, 1895.*

Names and Duties of Assistants.

Sidney Blout, Chainman.

Clarence P. Haggard, Chainman.

James G. Gruver, Flagman.

James C. Rosengren, Mounduman

Theodore Neeland, Mounduman

INDEX.

T. 21 N., R. 41 W.

	31	32	33	34	35	36
Random line				2	1	1
~~True line~~				59	59	58

5th Standard Parallel N.

T. 21 N., R. 40 W.

	31	32	33	34	35	36
Random line	1 and 3	3	3	4	4	4
~~True line~~	57	56	55	54	53	52

5th Standard Parallel N.

T. 21 N., R. 39 W.

	31	32	33	34	35	36
Random line	4	4	5	5	5	5
~~True line~~	51	50	49	48	47	46

5th Standard Parallel N.

T. 21 N., R. 38 W.

	31	32	33	34	35	36
Random line	6	7	7	7	7	7
True line	45	44	44	43	42	42

5th Standard Parallel N.

T. 21 N., R. 37 W.

	31	32	33	34	35	36
Random line	8	8	8	8	9	9
True line	40	39	38	38	37	36

5th Standard Parallel N.

T. 21 N., R. 36 W.

	31	32	33	34	35	36
Random line	9	10	10	10	10	10
True line	34	33	32	32	31	30

5th Standard Parallel N

T. 21 N., R. 35 W.

	31	32	33	34	35	36
Random line	11	11	11	11	11	11
True line	29	28	27	27	26	25

5th Standard Parallel N.

T. 21 N., R. 34 W.

	31	32	33	34	35	36
Random line	12	12	12	13	13	13
True line	24	23	23	22	2	20

5th Standard Parallel N.

T. 21 N., R. 34 W.

	31	32	33	34	35	36
Random line	13	13	13	13	14	14
True line	19	19	18	17	16	15

5th Standard Parallel N.

INDEX DIAGRAM.

Township ....., *Range* .....

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

Meanders Page .....

Preliminary Oaths of Assistants.

We, Clarence P. Hoggard and Sidney Blout

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true 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 Fifth Standard Parallel North, through Ranges Nos 31, 32, 33, 34, 35, 36, 37, 38, 39 40 and the East three Miles of 41 W. and the 6th Standard Parallel North through Ranges 31, 32, 33, 34, 35 36, 37 38, 39, and 40, West of the Sixth Principal Meridian in the State of Nebraska

Clarence P Hoggard, Chainman.
Sidney Blout, Chainman.
, Chainman.
, Chainman

Subscribed and sworn to before me this 30th day of March, 1895.

E. E. Lowe
Co. Clerk in and for Grant Co. Neb.

We, James C. Rosengren and Theodore Nelson

do solemnly swear that we will well and truly perform the duties of ~~axeman~~ Flagman in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the re survey of the Fifth Standard Parallel North, through Ranges Nos 31. 32. 33 34, 35, 36 37, 38 39, 40 and the East three Miles of 41, and the Sixth Standard Parallel through Ranges Nos 31. 32. 33. 34, 35, 36, 37, 38 39, and 40, West of the Sixth Principal Meridian in the State of Nebraska

Subscribed and sworn to before me this 30th day of March, 1895.

James C Rosengren, ~~Axeman.~~ Flagman.
Theodore Nelson, ~~Axeman.~~ Flagman

E. E. Lowe
Co. Clerk in and for Grant Co. Neb.
Seal

I James G. Grover, 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 Fifth Standard Parallel North through Ranges 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, and the East 3 miles of Range 41 West, and the Sixth Standard parallel North, through Ranges 31, 32, 33, 34, 35, 36, 37, 38, 39 and 40 West of the Sixth Principal Meridian, in the State of Nebraska.

James G. Grover
Flagman

Sworn and Subscribed to before me this 30th day of March A.D. 1895

Seal

E. E. Lowe
Co Clerk in & for Grant Co. Neb.

Resurvey of the 5th Standard Parallel North, through Ranges 33 to 41 inclusive, in the State of Nebraska

Survey commenced Apl. 8, 1895 and executed with a Young and Sons, Transit #6, the horizontal limb having two double Verniers placed opposite to each other reading to 1" of arc.

The instrument was examined, repaired and adjusted by Young and Sons, manufacturers of Philadelphia Pa. preparitory to commencing this survey.

As the cor. of Tp. 21 N. Rs. 40 and 41 W. cannot be found I reestablish the cor. as follows.

At the closing cor. T. 20 N., Rs. 40 and 41 W. which is a cedar post 3 ft. long 3 ins. sq. in flat mound with pits N., E. and W. - I observe Polaris at Eastern Elongation at 11.47 Central standard time or 10.55 local mean time on July 29 - in accordance with instructions in the manual, and mark the line thus determined by point in stake 5 chs. N. of cor.

July 29 - 1895

July 30 at 7 o'clock A. M. I lay off azimuth of Polaris of 1°41' to the W. and mark the true meridian thus determined by driving tack in top of an Oak Stake firmly driven in the ground 5.00 chs. N. of cor. I also drive tack in Oak stake firmly driven in the ground 20 lks. N. of cor. on the meridian.

I lay off an angle of 89°56' to the W. and run

N. 89°56' W. on the tangent to the old parallel

59.99 Original 1/4 sec. cor. on S. of sec. 3, 62 lks S. of tangent

99.93 N. 1 1/2 lks. from the tangent set temp. cor. of T. 21 N, Rs. 40 and 41 W. at this point I deflect 0°1' to the S. and run through R. 41 W.

N. 89°57' W. on the tangent S. of sec. 36

40.00 N. 3 lks. from the tangent set temp. 1/4 sec. cor.

80.00 N. 4 1/2 " " " " " " cor. of secs. 35 and 36

N. 89°58' W. on the tangent S. of sec. 35

40.00 N. 7 lks. from the tangent set temp. 1/4 sec. cor.

80.00 N. 9 1/2 " " " " " " cor. of secs. 34 and 35

5th Standard Parallel North, through Ranges 40 and 41 W.

Chains	N. 89° 59 W. on the tangent S. of sec. 34
40.00	N. 12½ lks. from the tangent set temp. 1/4 sec. cor.
80.00	N. 16¼ " " " " " " cor. of secs. 33 and 34
81.93	The original cor. of secs. 33 and 34, 20¾ lks. N. of random line

The temp. cor. of Tp. 21 N., R. 40 and 41 W. should be moved to the N. – 20¾ lks. less (17/17 of 20¾) or 14½ lks. = 6¼ lks. and the new dist. from S. 1/4 sec. 31 – to the cor. of T. 21. N. R. 40 and 41 W. is shown by the following proportion

281.87 : 280.00 :: x : 40.00
new dist. old dist.

which is 40.27, therefore I move the temp. Township cor. 33 lks. N. and 6¼ lks. N. where I set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground, for standard cor. of T. 21 N., Rs. 40 and 41 W. marked

S.C. T. 21 N. on N.

R. 40 W., S. 31 on E.

R. 41 W., S 36 on W. faces with 6 grooves on N. E. and W. faces, dug pits 30 x 24 x 12 ins. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist. and raised a mound of earth 5 ft. 2½ ft. high N. of cor.

The temp. 1/4 sec. and sec. cor. in R. 41 W. should be moved W. 33 lks. and set N. from the random line by offsets decreasing 2.4/10 lks. per half mile. The true course of the 5th Standard Parallel through R. 41 W. from the Standard cor. of Township 21 N. Range 40 and 41 W to the original Standard cor. Secs. 33 and 34 is therefore N. 89° 55' W.

July 30 – 1895

[illegible]

as the location of the Standard cor. of T. 21 N., R. 40 and 41 W. is in such a position that it is impossible to make a Polaris observation from the cor. and mark a meridian. I drive an Oak stake 2 ft. long 2 ins. sq. firmly in the ground at a point S. 89° 56' E. 4.54 chs. from the cor. and observe Polaris on the meridian at 12.59 Central standard time. On the night of April 8, being 13/4 minutes after the star Delta Cassiopeiae was in the plane of Polaris, and mark the line thus determined by a point in stake driven N. of my station as per instructions

5th Standard Parallel North, through Range 40 W. continued.

in the manual, the elongations of Polaris both occur in daytime

Apl. 8 – 1895

Apl. 10 at 7 A.M. I drive an Oak stake firmly in the ground at a point 5 chs. N. of my station of observation, and drive a tack in stake on the true meridian

The magnetic bearing of the true meridian is N. 13° 08' W., which reduced by the table on page 100 of the manual gives the mean magnetic declination 13° 04' E.

From the standard cor. of Tp. 21 N. Rs. 40 and 41 W. I run

	S. 89° 56' E. on the tangent to the old parallel S. of sec. 31
40.00	N. 1/4 lk. from the tangent set temp. 1/4 sec. cor.
40.27	The old 1/4 cor. on S. of sec. 31, which is S. 71 lks. from the random

From this cor. to the cor. of Tp. 21 N., Rs. 40 and 41 the true bearing of the Standard is N. 88° 56' W.

80.00	N. 1 lk. from the tangent set temp. cor. of secs. 31 and 32
	S. 89° 55' E. on the tangent S. of sec. 32
0.50	The old Standard cor. of secs. 31 and 32 which is S. 14 lks. from the random. From this cor. to the S. 1/4 cor. of sec. 31 the true bearing of the standard is S. 89° 16' W.
20.26	The old closing cor. T. 20 N., Rs. 40 and 41 W. which is S. 6 lks. from the random. From this cor. to the cor. of secs. 31 and 32 the true bearing of the Standard is S. 89° 50' W.
40.00	N. 2½ lks. from the tangent, set temp. 1/4 sec. cor.
40.67	The old 1/4 cor. on S. of sec. 32, which is N. 36 lks. from the random. From this cor. to the closing cor. of T. 20 N., Rs. 40 and 41 W. the true bearing of the standard is S. 88° 52' W.
80.00	N. 3½ lks. from the tangent, set temp. cor. of secs. 32 and 33
	S. 89° 54' E. on the tangent S. of sec. 33
0.75	The old standard cor. of secs. 32 and 33 which is N. 38 lks. from the random. From this cor. to the S. 1/4 cor. of sec. 32 the true bearing of the Standard is N. 89° 58' W.
40.00	N. 6 lks. from the tangent, set temp. 1/4 sec. cor.
40.93	The old 1/4 sec. cor. on S. of sec. 33 which is N. 11 lks. from

Chains	
	the random. From this cor. to the cor. of secs. 31 and 33 the true bearing of the standard is N. 89° 33' W.
80.00	N. 8¼ lks. from the tangent, set temp. cor. of secs. 33 and 34
	S. 89° 54' E. on the tangent S. of sec. 34
40.00	N. 11 lks. from the tangent, set temp. ¼ sec. cor.
41.34	The old ¼ sec. cor. on S. of sec. 34 which is N. 16 lks. from the random. From this cor. to the ¼ sec. cor. on S. of sec. 33 the true bearing of the Standard is S. 89° 49' W.
80.00	N. 14 lks. from the tangent, set temp. cor. of secs. 34 and 35
	April 10—1895
	S. 89° 53' E. on the tangent S. of sec. 35
40.00	N. 18¼ lks. from the tangent set temp. ¼ sec. cor.
80.00	N. 23 " " " " " " cor of secs. 35 and 36
	S. 89° 51' E. on the tangent S. of sec. 36
2.04	The old cor. of secs. 35 and 36, which is S. 12 lks from the random. From this cor. to the old ¼ cor. on S. of sec. 34 the true bearing of the standard is N. 89° 40' W.
40.00	N. 27¼ lks. from the tangent, set temp. ¼ sec. cor.
80.00	N. 33 lks. from the tangent set temp. cor. of T. 21 N., Rs. 39 and 40 W. At this cor. I deflect 9' 17" N. from the tangent prolonged and run through

Range 39 W.

Chains	
	N. 89° 59' E. on the tangent S. of sec. 31
2.37	The old cor. of Tp. 21 N., R. 39 and 40 W. which is N. 48 lks of the random. From this cor. to the cor. of secs. 35 and 36 R. 40 W. the true bearing of the parallel is S. 89° 38' W.
40.00	N. 27¼ lks. from the tangent, set temp. ¼ sec. cor.
42.71	The old ¼ cor. on S. bdy. of sec. 31, which is N. 92 lks from the random. From this cor. to the old cor. of T. 21 N., Rs. 39 and 40 W. the true bearing of the Standard is S. 89° 26' W.
80.00	N. 23 lks. from the tangent, set temp. cor. of secs. 31 and 32
	E. on the tangent S. of sec. 32
2.59	The old cor. of secs. 31 and 32, which is N. 87 lks. from the random. From this cor. to old ¼ cor. on S. bdy. sec. 31 the true bearing of the Standard is N. 89° 52' W.

Chains	
40.00	N. 18¼ lks from the tangent, set temp. ¼ Sec. Cor.
42.81	The old ¼ Cor. on S. bdy. of Sec. 32, which is N. 153 lks. from the random. From this Cor. to the old Cor. of Secs. 31 and 32 the true bearing of the Standard is S. 89° 07' W.
80.00	N. 1 lks. from the tangent, set temp. Cor. of Secs. 32 and 33.
	S. 89° 59' E. on the tangent S. of Secs. 33.
2.98	The old Cor. of Secs. 32 and 33, which is N. 88 lks. from the random. The true bearing of the parallel from this Cor. to the old ¼ Sec. Cor. on the S. bdy. of Sec. 32 is N. 89° 00' W.
40.00	N. 11 lks from the tangent, set temp. ¼ Sec. Cor.
80.00	N. 8¼ " " " " " " Cor. of Secs. 33 and 34.
	S. 89° 58' E. on the tangent, S. of Sec. 34
40.00	N. 6 lks. from the tangent, set temp. ¼ Sec. Cor.
80.00	N. 3½ " " " " " Cor. of Secs. 34 and 35.
	S. 89° 58' E. on the tangent S. of Sec. 35.
40.00	N. 2½ lks. from the tangent, set temp. ¼ Sec. Cor.
44.85	The old ¼ Sec. Cor. on S. bdy. of Sec. 35, which is N. 2.66 chs from the random. From this old Cor. to the old Cor. of Secs. 32 and 33. the true bearing of the Standard is S. 89° 34' W.
80.00	N. 1 lk. from the tangent, set temp. Cor. of Secs. 35 and 36.
	S. 89° 57' E. on the tangent S. of Sec. 36.
5.14	The old Cor. of Secs. 35 and 36, which is N. 2.90 chs. from the random. The true course of the Standard from this Cor. to the old ¼ Sec. Cor. on the S. bdy. of Sec. 35 is S. 89° 43' W.
40.00	N. 4 lk. from the tangent, set temp. ¼ Sec. Cor.
45.36	The old ¼ Sec. Cor. on S. bdy. of Sec. 36 which is N. 2.37 chs. from the random. From this Cor. to the old Cor. of Secs. 35 and 36, the true bearing of the Standard is N. 89° 40' W.
80.00	N. 0 lks. from the tangent, set temp. Cor. of T. 21 N., R. 38 and 39 W.
	Thence I run through

Range 38 W.

5th Standard Parallel N., through Range 38 W.

Chains.	
	S.89°56' E. on the tangent S. of Sec. 31.
5.58	The old Cor. of T. 21 N., Rs. 38 and 39 W., which is N. 2.48 chs. from the random. From this old Cor., to the old 1/4 Sec. Cor. on the S. bdy. of Sec. 36, R. 39 W., the true bearing of the standard is S.89°55' W.
	I set an Oak Post 3 ft. long 4 in. sq., with charred stake 2 ft. in the ground, in place of the old stake in mound at the Original Cor. of T. 21 N., Rs. 38 and 39 W., marked S.C. T 21 N. on N., R. 39 W. S. 36 on W., and R. 38 W. S. 31 on E. faces, with 6 grooves on N., E. and W. faces, dug pits 30 x 24 x 12 in. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist. and raised a mound of earth 5 ft. base 2 1/2 ft. high N. of Cor. and drove a tack in post at exact Cor. point.
	At 11.58 local mean time I observe Polaris on the meridian being 1 3/4 minutes after the star Delta Cassiopeiae was in place of Polaris, as per instructions in the manual, and mark the line thus determined by point in stake driven N. of my station.
	April 11. 1895.

April 12, at 7 A. M. I drive oak stake firmly in the ground at a point in the meridian 5 chs. N. of Cor. and mark the true meridian by driving tack in stake.

At 11.54 local mean time, I observe Polaris on the meridian as per instructions in the Manual and find that my two observations, (11 E) the one taken April 11, and the observation taken April 12 define the same line.

April 12, 1895.

To test my tangent I produce the meridian established April 12th to the south from the Cor. of T. 21 N., R. 38 and 39 W., to an intersection with the tangent on S. of Sec. 31 and I find that the angle of the meridian and tangent is 89°56'30", the angle being taken from the N. to the W., so I conclude that my work is correct.

At this point on the tangent, I offset to the North

5th Stand and Parallel North, through Range 38 W. Concluded

Chains	
	to the tack point in the Township Cor. of T. 21 N., R. 38 and 39 W., and turn an angle of 90°04' from the true meridian established April 12, and run S.89°56' E. on a new tangent, maintaining the measurement from the Corner of T. 21 N., R. 40 and 41 W.
	S.89°56' E. on the tangent S. of Sec. 31.
40.00	N. 1/4 lk. from the tangent, set temp. 1/4 Sec. Cor., being 34.42 chs. from Tp. Cor.
45.82	The old 1/4 Cor. on S. bdy. of Sec. 31, which is N. 32 lks. from the random. From this Cor. to the old Cor. of Tp. 21 N., Rs. 38 and 39 W., the true bearing of the standard is S. 89°12' W.
80.00	N. 1 lk. from the tangent, set temp. Cor. of Secs. 31 and 32.
	S.89°55' E. on the tangent, S. of Sec. 32.
6.09	The old Cor. of Secs. 31 and 32, which is N. 85 lks. from the random. From this Cor. to the old 1/4 Cor. on S. bdy. of Sec. 31 the true bearing of the standard is S.89°27' W.
40.00	N. 2 1/2 lks. from the tangent, set temp. 1/4 Sec. Cor.
46.30	The old 1/4 Sec. Cor. on S. bdy. of Sec. 32, which is N. 136 lks. from the random. From this old Cor. to the old Cor. of Secs. 31 and 32 the true bearing of the standard is S.89°12' W.
80.00	N. 3 1/2 lks. from the tangent set temp. Cor. of Secs. 32 and 33.
	S.89°54' E. on the tangent S. of Sec. 33
40.00	N. 6 lks. from the tangent set temp. 1/4 Sec. Cor.
80.00	N. 8 1/4 lks. " " " " Cor. of Secs. 33 and 34
	S.89°54' E. on the tangent S. of Sec. of 34.
40.00	N. 11 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 14 " " " " " " Cor. of Secs. 34 and 35.
	S.89°53' E. on tangent S. of Sec. 35.
40.00	N. 18 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 23 lks. from " " " " Cor. of Secs. 35 and 36.
	S.89°52' E. on the tangent, S. of Sec. 36.
40.00	N. 27 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 32 lks. from the tangent, set temp. Cor. of Tp. 21 N., Rs. 37 and 38 W.

At this point on the tangent, I deflect 9'17" North from the tangent prolonged, and run through

5th Standard Parallel North, through Range 37 W.

Chains	
	Range 37 W.
	N. 89°59' E. on the tangent, S. of Sec. 31.
8.67	The old Cor. of Tp. 21 N., Rs. 37 and 38 W. which is N. 2.40 chs from the random. From this old Cor. to the old ¼ Cor. on the S. bdy of Sec. 32. R. 38 W. the true bearing of the standard is S. 89°54' W.
40.00	N. 27¼ lks. from the tangent, set temp. ¼ Sec. Cor.
48.90	The old ¼ Sec. Cor. on the S. bdy. of Sec. 31, which is N. 2.26 chs. from the random. From this old Cor. to the old Cor. of Tp. 21 N., R. 37 and 38 W., the true bearing of the standard is N. 89°44' W.
80.00	N. 23 lks. from the tangent, set temp. Cor. of Secs. 31 and 32.
	April 15. 1895.
	East on the tangent, S. of Sec. 32.
9.23	The old Cor. of Secs. 31 and 32, which is N. 75 lks from the random. From this old Cor. to the old ¼ Cor. on S. bdy. of Sec. 31, the true bearing of the standard is N. 87°47' W.
40.00	N. 18¼ lks. from the tangent, set temp. ¼ Sec. Cor.
49.68	The old ¼ Sec. Cor. on S. bdy of Sec. 32, which is N. 80 lks. from the random. From this old Cor. to the old Cor. of Secs. 31 and 32, the true bearing of the standard is West
80.00	N. 1¼ lks. from the tangent set temp. Cor. of Secs. 32 and 33.
	S. 89°59' E. on the tangent, S. of Sec. 33.
9.89	The old Cor. of Secs. 32 and 33. which is N. 80 lks. from the random. From this Cor. to the old ¼ Sec. Cor. on S. bdy. of Sec. 32, the true bearing of the standard is N. 89°56' W.
40.00	N. 11 lks. from the tangent, set temp. ¼ Sec. Cor.
50.16	The old ¼ Sec. Cor. on S. bdy. of Sec. 33, which is S. 13 lks. from the random. From this old Cor. to the old Cor. of Secs. 32 and 33, the true bearing of the standard is N. 88°36' W
80.00	N. 8¼ lks. from the tangent, set temp. Cor. of Secs. 33 and 34.
	S. 89°58' E. on the tangent, S. of Sec. 34.
40.00	N. 6 lks. from the tangent, set temp. ¼ Sec. Cor.
50.59	The old ¼ Sec. Cor. on S. bdy of Sec. 34. which is N. 1¼ lks. from the random. From this old Cor. to the old ¼ Sec. Cor. on S. bdy. of Sec. 33. the true bearing of the standard is S. 87°52' W.
80.00	N. 3½ lks from the tangent. set temp. Cor. of Secs. 34 and 35.

5th Standard Parallel N. through Range 37 W. concluded.

Chains	
	S. 89°58' E. on the tangent, S. of Sec. 35
40.00	N. 2½ lks. from the tangent, set temp. ¼ Sec. Cor.
50.84	The old ¼ Sec. Cor. on S. bdy. of Sec. 35. which is N. 1.76 lks. from the random. From this Cor. to the old ¼ Cor on S. bdy. of Sec. 34, the true bearing of the Standard is S. 89°49' W.
80.00	N. 1 lk. from the tangent, set temp, Cor. of Secs. 35 and 36.
	S. 89°57' E. on the tangent S. of Sec. 36.
11.11	The old Cor. of Secs. 35 and 36 which is N. 2.03 ch. from the random. From this Cor. to the old ¼ Sec. Cor. on S. bdy. of Sec. 35, the true bearing of the standard is S. 89°41' W.
40.00	N. ¼ lk. from the tangent, set temp ¼ Sec Cor
51.39	The old ¼ Sec. Cor. on S bdy. of Sec. 36, which is N. 2.00 chs. from the random. From this Cor. to the old Cor. of Secs. 35 and 36. the true bearing of the standard is N. 89°52' W.
80.00	N. 0 lks. from the tangent, set temp. Cor. of Tp. 21 N., Rs. 36 and 37 W. Thence Run through L

Range 36 W.

S. 89°56' E. on the tangent, S. of Sec. 31.

11.57 The old Cor. of Tp. 21 N., Rs. 36 and 37 W., which is N. 2.73 ch. from the random. From this Cor. to the old ¼ Cor. on S. bdy. of Sec. 36. R. 37 W., the true bearing of the Standard is S. 89°01' W.

At this point on the tangent, I observe Polaris, on the meridian at 11.38 local mean time, being 1h 4 minutes after the star "Delta Cassiopeiae" was in the place of Polaris, as per instructions in the manual, mark the line thus determined by a point in stake driven N. of my station.

April 16. 1895.

April 17 at 7 A.M. I set transit over point of observation, and find that the angle between the meridian and the tangent prolonged to the East is 90°04½'.

At this point I make offset with tangent to the N. 2.73 chs. to the old Cor. of Tp. 21 N., R. 36 and 37 W., and then an angle of 90°04½' from meridian to the East, and run through L Ranges 35 and 36, on the new tangent.

5th Standard Parallel North through Range 36, continued.

Chains	
	maintaining the original measurement from the Cor. of T. 21 N. Rs. 40 and 41 W.
	S. 89° 56' E. on the tangent S. of Sec. 31.
40.00	N. 1/4 lk. from the tangent, set temp. 1/4 Sec. Cor.
52.00	The old 1/4 Sec. Cor. on S. bdy. of Sec. 31, which is S. 1 lk. from the random. From this cor. to the old Cor. of Tp. 21 N. Rs. 36 and 37 W., the true bearing of the Standard is N. 89° 55' W.
80.00	N. 1 lk. from the tangent, set temp. Cor. of Secs. 31 and 32.
	S. 89° 55' E. on the tangent S. of Sec. 32.
12.42	The old Cor. of Secs. 31 and 32, which is N. 4 lks. from the random. From this Cor. to the old 1/4 Cor. on S. bdy. of Sec. 31, the true bearing of the standard is S. 89° 23'
40.00	N. 2 1/2 lks. from the tangent set temp. 1/4 Sec. Cor.
80.00	N. 3 1/2 " " " " " " Cor. of Secs. 32 and 33.
	S. 89° 54' E. on the tangent S. of Sec. 33.
13.05	The old Cor. of Secs. 32 and 33, which is N. 2 lks. from the random. From this cor. to the old Cor. of Secs. 31 and 32, the true bearing of the standard is N. 89° 46' W.
40.00	N. 6 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 8 1/4 " " " " " " Cor. of Secs. 33 and 34
	S. 89° 54' E. on the tangent, S. of Sec. 34
13.87	The old Cor. of Secs. 33 and 34, which is N. 1 1/8 lks. from the random. From this Cor. to the old Cor. of Secs. 32 and 33, the true bearing of the standard is S. 89° 28' W.
40.00	N. 11 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 1/4 " " " " " " Cor. of Secs. 34 and 35.
	S. 89° 53' E. on the tangent, S. of Sec. 35.
40.00	N. 18 1/4 lks. from the tangent, set temp 1/4 Sec. Cor.
80.00	N. 28 " " " " " " set temp. Cor. of Secs. 35 and 36.
	S. 89° 52' E. on the tangent, S. of Sec. 36
40.00	N. 27 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 33 lks. " " " " " " Cor. of Tp. 21 N. R. 35 and 36 W.

At this point on the tangent, I deflect 9' 17" North, from the tangent prolonged, and run through

Range 35 W.

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5th Standard Parallel North, through Range 35 W.

Chains	
	N. 89° 59' E. on the tangent, S. of Sec. 31.
40.00	N. 27 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 33 " " " " " " Cor. of Secs. 31 and 32.
	East on the tangent, S. of Sec. 32.
40.00	N. 18 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 1/4 " " " " " " Cor. of Secs. 32 and 33.
	S. 89° 59' E. on the tangent, S. of Sec. 33
16.47	The old Cor. of Secs. 32 and 33, which is N. 5.76 ch. from the random. From this Cor., the old Cor. of Secs. 33 and 34, R. 36 W., bears S. 89° 19' W., 402.60 chs. dist.
40.00	N. 11 lks. from the tangent, set temp. 1/4 Sec. Cor.
56.93	The old Cor. 1/4 Sec. Cor. on S. bdy. of Sec. 33, which is N. 5.62 ch. from the random, from this cor. to the old Cor. of Secs. 32 and 33, the true bearing of the standard is N. 89° 44' W.
80.00	N. 8 1/4 lks. from the tangent, set temp. Cor. of Secs. 33 and 34
	S. 89° 58' E. on the tangent, S. of Sec. 34.
40.00	N. 6 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 3 1/2 " " " " " " Cor. of Secs. 34 and 35.
	S. 89° 58' E. on the tangent S. of Sec. 35.
40.00	N. 2 1/2 lks. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 1 lk. from " " " " Cor. of Secs. 35 and 36.
	S. 89° 57 E. on the tangent, S. of Sec. 36.
18.35	The old Cor. of Secs. 35 and 36, which is N. 4.29 ch. from the random. From this cor. to the old 1/4 Sec. Cor. on S. bdy. of Sec. 33, the true bearing of the standard is N. 89° 18' W.
40.00	N. 1/4 lk. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N. 0 " " " " " " Cor. 21 N. R. 34 and 35 W., thence run through

Range 34 W.

5th Standard Parallel North, through Range 34 W.

chains.

S.89°56'E. on the tangent, S. of Sec. 31.

18.71 The old Cor. of Tp. 21 N. R. 34 and 35 W., which is N. 3.81 ch. from the random. From this Cor. to the old Cor. of Secs. 35 and 36, the true bearing of the Standard is N. 89°35' W.

At this original Tp. Cor., I observe Polaris, from a stick driven in the oak Post, which I set in corner; on the meridian at lower culmination at 11.35 local mean time, being 1 3/4 minutes after the star "Delta Cassiopeiae" was in the plane of Polaris; and mark the line the line thus determined by a point in stake N. of my station.

April 18, 1895.

At 7 A.M. Apl. 19, I prolong the meridian to the S. to an intersection with the tangent run through Ranges 35 and 36, and find that the included angle, from the meridian and tangent prolonged to the East - is 90°04'

At this point on the tangent I offset with the tangent to the N. 3.81 ch., to the township Cor., and turn an angle of 90°04' from N. to E., and run through Ranges 33 and 34 on a new tangent from this Tp. Cor., maintaining the measurement from the Cor. of Tps. N. R. 40 and 41 W.

S.89°56'E. on the new tangent. South of Sec. 31

40.00 N. 1/4 lk. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 1 lk. " " " " " Cor. of Secs. 31 and 32

S.89°55'E. on the tangent, S. of Sec. 32.

40.00 N. 2 1/2 lks. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 3 1/2 " " " " " " Cor. of Secs. 32 and 33.

S.89°54'E. on the tangent S. of Sec. 33

19.28 The old Cor. of Secs. 32 and 33. which is S. 1.33 lks. from the random. From this Cor. to the old Cor. of Tp. 21 N. Rs. 34 and 35 W. the true bearing of the Standard is N. 89°27' W.

40.00 N. 6 lks. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 8 1/4 " " " " " " Cor. of Secs. 33 and 34

5th Standard Parallel, through Range 34 W., continued.

chains.

S.89°54'E. on the tangent, S. of Sec. 34.

40.00 N. 11 lks. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 14 " " " " " Cor. of Secs. 34 and 35.

S.89°53'E. on the tangent, S. of Sec. 35.

20.23 The old Cor. of Secs. 34 and 35. which is S. 2.06 ch. from the random. From this Cor. to the old Cor. of Secs. 32 and 33, the true bearing of the Standard is N. 89°41' W.

40.00 N. 18 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 23 " " " " " " Cor. of Secs. 35 and 36.

S.89°52'E. on the tangent. S. of Sec. 36.

40.00 N. 27 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 33 " " " " " " Cor. of Tp. 21 N. Rs. 33 and 34 W.

At this point on the tangent, I deflect 9'17" to the N. from the tangent prolonged, and run through

Range 33 W.

N.89°59'E. on the tangent, S. of Sec. 31

20.51 The old Cor. of Tp. 21 N., R. 33 and 34 W. which is S. 3.26 ch. from the random. From this Cor. to the old Cor. of Secs. 34 and 35, the true bearing of the Standard is N. 89°30' W.

40.00 N. 27 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 28 " " " " " " Cor. of Secs. 31 and 32.

East on the tangent, S. of Sec. 32.

40.00 N. 18 1/4 lks. from the tangent, set temp. 1/4 Sec. Cor.

62.45 The old 1/4 Sec. Cor. on the S. bdy. of Sec. 32. which is S. 2.96 ch. from the random. From this Cor. to the old Cor. of Tp. the true bearing of the Standard is S. 89°55' W.

80.00 N. 14 lks. from the tangent, set temp. Cor. of Secs. 32 and 33.

April 19, 1895.

S.89°59'E. on the tangent, S. of Sec. 33.

40.00 N. 11 lks. from the tangent, set temp. 1/4 Sec. Cor.

80.00 N. 8 1/4 " " " " " " Cor. of Secs. 33 and 34.

S.89°58'E. on the tangent, S. of Sec. 34

23.82 The old Cor. of Secs. 33 and 34, which is S. 3.10 ch. from the random. From this Cor. to the old 1/4 Cor. on S. bdy.

5th Standard Parallel N. through Range 33 W.

Chains	
	of Sec. 32, the true bearing of the Standard is N.89°52'W
40.00	N.6 lks. from the tangent set temp. 1/4 Sec. Cor.
66.45	The old 1/4 Sec. Cor. on S. bdy. of Sec. 34. which is S. 3.66 chs. from the random. From this Cor. to the old Cor. of Secs. 33 and 34, the true bearing of the standard is N.89°08'W.
80.00	N.3½ lks. from the tangent. set temp. Cor. of Secs. 34 and 35.
	S.89°58'E. on the tangent, S. of Sec. 35.
23.61	The old Cor. of Secs. 34 and 35, which is S. 4.20 chs. from the random. From this Cor. to the old 1/4 Cor. on S. bdy. of Sec. 34. the true bearing of the standard is N.89°10'W.
40.00	N.2½ lks. from the tangent, set temp. 1/4 Sec. Cor.
64.29	The old 1/4 Sec. Cor. on S. bdy. of Sec. 35, which is S. 4.42 chs. from the random. From this Cor. to the old Cor. of Secs. 34 and 35, the true bearing of the Standard is N.89°37'W
80.00	N.1 lk. from the tangent, set temp. Cor. of Secs. 35 and 36.
	S.89°57'E. on the tangent, S. of Sec. 36.
23.59	The old Cor. of Secs. 35 and 36. which is S. 4.77 chs. from the random. From this Cor. to the old 1/4 Sec. Cor. on S. bdy. of Sec. 35, the true bearing of the Standard is N.89°26'W.
40.00	N.1/4 lk. from the tangent, set temp. 1/4 Sec. Cor.
80.00	N.0 " " " " " Cor. of Tp. 21 N., R.S. 32 and 33 W.

I find the old Cor. of T. 21 N., R. 32 and 33 W., so I prolong the tangent to a point N. of the old Cor. which is a decayed post in a flat mound, with pits N., E. and W. of mound 7 ft. dist.

S.89°56'E. on the tangent.

27.26	The old Cor. of Tp. 21 N., Rs. 32 and 33 W. which is S. 9.79 chs. from the random. From this Cor. to the old Cor. of Secs. 35 and 36 the true bearing of the Standard is N.86°31'W.

Note:- As the distance from the original Cor. of Secs. 35 and 36 is 83.67 chs., the difference in fallings is 5.02 chs. The falling for 80 chains would be 4.78 chs., making a correction of 3°25'

To satisfy myself that this is the old Cor., I run S.89°56'E. on the tangent - through Range 33 W.

40.00	N.1/4 lk. from the tangent set temp. 1/4 Sec. Cor.
68.63	The old Closing Cor. of T. 20 N., R. 32 and 33 W. which is S. 18 lks. from the random.

So I conclude that there can be no mistake as

5th Standard Parallel N. through Range 33 W., continued.

Chains	
	to the Cor. of T. 21 N., Rs. 32 and 33 W., which I have used as being the original Cor.

In place of the decayed stake is mound at the Cor. of T. 21 N., R.S. 32 and 33 W., I set an Oak Post 3 ft. long 4 ins. sq. with charred stake 2 ins. in the ground for Standard Cor. of T. 21 N., Rs. 32 and 33 W., Marked

S.C. T21N on N.,

R 32W., S 31 on E., and

R. 33 W. S.36 on W. faces, with 6 grooves on N., E. and W. faces, dug pits 30 x 24 x 12 ins. crosswise on each line, E. and W., 4 ft. and N. of post 8 ft. dist. and raised a mound of Earth 5 ft. base 2½ ft. high, N. of Cor.

True Line ———————— R.33

The old Standard Cor. of Secs. 35 and 36 is S. 4.77 chs. from the random and this Cor., 9.79 chs. S. of the random, the true bearing of the corrected Standard is N.86°31'W. and the Northing with 239 lks. per half mile, is 5 chs. the northing will be 30 links, consequently, at a point on my tangent 5 chains W. I measure 9.49 chs. to the S. which determines a point on the corrected Standard, on which the instrument may be directed - From this line I turn an angle of 86°31' to the N., the magnetic bearing of the line, defined as above, is N.12° 45' W., which reduced by the table on page 100 of the manual, for 4 P.M. gives the mean magnetic declination 12°47'E.

N.86°31'W. on S. bdy. of Sec. 36

Over level land.

12.69	S.61 lks., The old Closing Cor. of Secs. 1 and 2, T. 20 N., R. 33 W.
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 Sec. Cor. dug pits 18 x 18 x 12 ins. E. and W. of Cor. 4 ft. dist. and raised a mound of Earth 3½ ft. base 1½ ft. high, over deposit

In E. pit drove an Oak Stake 2 ft. long 2 ins. sq., 12 ins. in the ground, marked

S.C. 1/4 S. on N. face

Ascend along N.E. slope over rolling ground.

62.00	Top of ascent 50 ft. thence descend slightly along N.W. slope over rolling ground.
80.00	Set an Oak Post 3 ft. long 4 ins. sq. with charred stake

5th Standard Parallel North, through Range 33 W., Continued.

Chains.

24 ins. in the ground, for Standard Cor. of Secs. 35 and 36, marked
S.C. T 21 N., R 33 W. on N.,
S. 36 on E. and
S. 35 on W. faces, with 1 groove on E. and 5 grooves on W. faces
dug pits 24 x 18 x 12 ins. crosswise on each line, E. and W. 3 ft.
and N. of post 7 ft. dist. and raised a mound of earth
4 ft. base 2 ft. high, N. of Cor.
Land, rolling and level.
Soil, Sandy 2nd and 3rd rate.
Tall, Sand and bunch grass.

N. 86° 31' W. on S. bdy. Sec. 35

3.67 The old Standard Cor. of Secs. 35 and 36, flat mound with pits, with cedar stake, which is S. 4.77 chs. from the random, The old Standard 1/4 Sec. Cor. on S. bdy of Sec. 35 is S of random 4.42 chs., therefore the course of the corrected parallel is N. 89° 26' W., and the Northing 35 links per half mile, from this old Sec. Cor., Consequently, I run
N. 89° 26' W. on S. bdy. Sec. 35
Descend steep hilly over rolling ground
25.00 Bottom descent, in ravine, course N., ascend.
35.00 Top of ascent 20 ft. above, thence over rolling ground
40.00 Deposit a charred stake 1 in. in the ground for Standard 1/4 Sec. Cor., dug pits 18 x 18 x 12 ins. E. and W. of Cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high, over deposit
On E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
S.C. 1/4 S. on W. face.
Ground gently.

42.97 The old Standard 1/4 Sec. Cor. on S. bdy. Sec. 35. flat mound and pits, which is S. 4.42 chs. from the random, The old Standard Cor., of Secs. 34 and 35. is S. of the random 4.20 chs., therefore the course of the corrected parallel is N. 89° 37' W. and the northing per half mile is 22 lks.
from this 1/4. Cor. Consequently, I run
N. 89° 37' W. on S. bdy Sec. 35.
46.00 Low ravine runs N. ascend gently over rolling ground.
80.00 Set an Oak Post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground, for Standard Cor. of Secs. 34 and 35,

5th Standard Parallel North, through

Chains

marked
S.C. T. 21 N., R. 33 W. on N.
S. 35 on E. and
S 34 on W. faces with 4 grooves on W. and 2 grooves on E. faces, dug pits 24 x 18 x 12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
Land rolling
Soil Sandy 3rd rate
Tall Thin Sand grass.

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N. 89° 37' W. on S. bdy. Sec. 34

3.65 — The old Standard cor. of secs. 34 and 35 flat mound with discarded stake, and pits N. E. and W. which is 4.20 chs S. of the random, The old Standard 1/4 sec. cor. on S. bdy. Sec. 34 is S. of the random 3.66 chs. therefore the course of the corrected parallel is N. 89° 10' W., and the Northing per half mile is 34 lks. from this Standard sec. cor. consequently, I run
N. 89° 10' W. on S. bdy. sec. 34
ascend gently, over rolling ground
40.00 Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18 x 18 x 12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit
On E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
S.C. 1/4 S. on N. face
40.80 The old Standard 1/4 cor. on S. bdy. S. 34, mound with pits, no stake which is S. 3.66 chs. from the random
The old Standard cor. of secs. 33 and 34 is S. of the random 3.10 chs. therefore the course of the corrected parallel is N. 89° 08' W. and the Northing 56 lks. per half mile,
from this 1/4 sec. cor. consequently, I run

N. 89° 08' W. on S. bdy. of sec. 34
ascend over rolling ground
75.00 Top of ascent on low ridge, course N. and S. descend
80.00 Set an Oak Post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 33 and 34 marked S.C. T. 21 N., R. 33 W. on N.

5th Standard Parallel North, through Range 33 W. continued

chains

S. 33 on E. and
S. 33 on W. faces, with 3 grooves on E. and W. faces
dug pits 24x18x12 ins. crosswise on each line E. and
W. 3 ft. and W. of post 7 ft. dist. and raised a mound of
earth 4 ft. base 2 ft. high W. of cor.
Sand, rolling foot hills
Soil, sandy 3rd rate
Sand and Bunch grass

N. 89° 08' W. on S. bdy. sec. 33
Discend gently along N. slope foot hills
3.44 The old Standard cor. of secs. 33 and 34, mound and
pits in S. 3.10 chs. from the random
The old Standard 1/4 sec. cor. on S. bdy. sec. 32 is S. of
the random 2.96 chs. therefore the course of the corrected
parallel is N. 89° 52' W. and the Northing will be
5 lks. per half mile (nearly)
From this old Standard sec. cor. consequently I run

N. 89° 52' W. on S. bdy. of sec. 33
Discend
15.00 Ravine or pass, course N. and S. at foot of bluff ascend abruptly
32.00 Top of ascent 10 ft. high, course N. and S. thence over
broken ground along top of range
40.00 Deposit a charred stake 12 ins. in the ground for
Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor.
4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft.
high over deposit
in E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in
the ground marked
S.C. 1/4 S. on W. face
55.00 Begin discent along S. W. slope over broken ground
80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake
24 ins. in the ground for Standard cor. of secs. 32 and 33
marked S.C. T. 21 N., R. 33 W. on W.
S. 33 on E. and
S. 32 on W. faces, with 4 grooves on E. and 2 grooves on W. faces
dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W.
and 7 ft. dist. W. of post, and raised a mound of earth
4 ft. base 2 ft. high W. of cor.
Sand, rolling and broken sand hills

5th Standard Parallel North, through Range 33 W. continued

chains

Soil, sandy 3rd rate
Sand and bunch grass

N. 89° 52' W. on S. bdy. of sec. 32
Discend over broken ground
8.00 Bottom discent, thence over rolling ground
38.00 Enter basin like Valley N. and S.
40.00 Deposit a charred stake 12 ins. in the ground for Standard
1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist
and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over
deposit. In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in
the ground, marked
S.C. 1/4 S. on W. face
44.81 The old Standard 1/4 sec. cor. on S. bdy. of sec. 32, which is S.
2.96 chs. from the random, and the old cor. of
T. 21 N., R. 33 and 34 W. is S. 3.26 chs. from the random
therefore the course of the corrected parallel is S. 89° 55' W.
and the Southing 10 lks. per half mile
From this 1/4 sec. cor. consequently I run

S. 89° 55' W. on S. bdy. of S. 32
Over level land
78.00 Foot of range, course N. 50° E., S. 50° W. ascend abruptly
along S. E. slope
80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24
ins. in the ground for Standard cor. of secs. 31 and 32 marked
S.C. T. 21 N., R. 33 W. on W.
S. 32 on E. and
S. 31 on W. faces, with 5 notches on E. and 1 notch on W. faces
dug pits 24x18x12 ins. crosswise on each line, E. and
W. 3 ft. and W. of post 7 ft. dist. and raised a mound
of earth 4 ft. base 2 ft. high W. of cor.
Sand, rolling and broken
Soil, sandy 3rd rate
Thin sand and bunch grass

S. 89° 55' W. on S. bdy. of sec. 31
Ascend along S. E. face
4.00 Top of range 10 ft. high, thence over broken ground
15.00 Begin discent along S. W. slope over rolling ground

5th Standard Parallel North, through Range 33 W. concluded

chains	
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 Sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit in E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face
	Descend over rolling foot hills
60.00	Bottom descent in ravine course N. 30° E. S. 30° W. ascend over rolling foot hills
86.75	The old cor. of T. 21 N., Rs. 33 and 34 W. flat mud, with pits and worm eaten stakes in mound, where I set an Oak post 3 ft. long 4 ins. sq. with charred stake for Standard cor. of T. 21 N., Rs. 33 and 34 W. marked S.C. T. 21 N. on N. R. 33 W. S. 31 on E. and R. 34 W. S. 36 on W. faces, with 6 grooves on W. E. and W. faces dug pits 30x24x12 ins. crosswise on each line E. and W. 4 ft. dist. and N. of post 8 ft. dist. and raised a mound of earth 5 ft. base 2½ ft. high N. of cor. Land rolling and broken and sand hills Soil, sandy 3rd rate Sand and bunch grass

True Line, R. 34

5th Standard Parallel North, through Range 34 W.

chains The old Standard T. cor. of T. 21 N., Rs. 33 and 34 is S. 3.26 chs. from the random line, and the old cor. of Secs. 34 and 35 is S. 2.06 chs. from the random, therefore the course of the corrected parallel is N. 89° 30' W. and the Northing 30 lks. per half mile from this old T. cor. consequently I run

N. 89° 30' W. on S. bdy. of Sec. 36

I turn an angle from the corrected line of 89° 30' from W. to N. and the magnetic bearing of the line is N. 13° W. at 1 o'clock, the angle reduced by the table on page 100 of the manual gives the mean magnetic decl. 13° 08' E. Descend over broken foot hills

14.00 Bottom descent 40 ft. below cor. at foot of bluffs ascend abruptly

17.40 Top of ascent 100 ft. above, on E. edge sand blowout, thence over

5th Standard Parallel North, through Range 34 continued

chains	
	broken ground along top of range, ascending.
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 Sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit in E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face
44.00	Top of range 150 ft. high, course N. W. and S. E. over rolling ground
65.00	Begin descent along W. slope over ridges
80.00	Set an Oak Post 3 ft. long 4 ins. sq. with charred stake 12 ins. in the ground for Standard cor. of Secs. 35 and 36, marked S.C. T. 21 N. R. 34 W. on W. S. 36 on E. and S. 35 on W. faces, with 1 groove on E. and 5 grooves on W. faces, dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. dist. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor. Land, broken and rolling sand hills Soil, sandy 3rd rate Bunch and sand grass

N. 89° 30' W. on S. bdy. of Sec. 35

Descending over broken ground

4.00 Bottom descent 40 ft. below cor., ascend along N. E. slope

7.00 Top of ascent 30 ft. above, thence along N. slope range over rolling ground. Valley lays to N. of line about 1/4 mile

40.00 Deposit a charred stake 12 ins. in the ground for Standard 1/4 Sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit in E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face

55.00 Begin gentle ascent along N. E. slope

66.00 Top of ascent, thence along top of low hills over ridges and rolling ground

80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake 12 ins. in the ground for Standard cor. of Secs. 34 and 35 marked S.C. T. 21 N. R. 34 W. on W. S. 34 on W. and S. 35 on E. faces, with 4 grooves on W. and 2 grooves on E. faces

5th Standard Parallel North, through Range 34 W. continued

chains	
	dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, rolling and Broken
	Soil, sandy 3rd rate
	Sand and bunch grass
	N. 89°30' W. on S. bdy. of sec. 34
	Over rolling ground sloping to the N.
1.28	The old cor. of secs. 34 and 35 flat mound with cedar stake and pits N. E. and W. this cor. is S. 2.06 chs. from the random and the old cor. of secs. 3 and 33 is S. 1.33 chs. from the random, therefore the course of the corrected parallel is N. 89°41' W. and the Northing 18 lks. per half mile from this old sec. cor. consequently I run
	N. 89°41' W. on S. bdy. of sec. 34
7.00	Ridge 20 ft. above cor. course N. and S. descend over rolling ground
26.00	Bottom descent in ravine course E. and W. thence over rolling ground, in ravine or depression
40.00	Deposit a charred stake 12 ins. in the ground for 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit. In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked S.C. 1/4 S. on W. face
	Thence over rolling ground and low ridges, ascending gently
77.00	Ridge 2 ft. high, course N. and S. descending gently
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 33 and 34 marked S.C. T. 21 N. R. 34 W. on N. S. 34 on E. and S. 33 on W. faces, with 3 grooves on E. and W. faces. dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, rolling foot hills
	Soil, sandy 3rd rate
	Sand and Bunch grass

5th Standard Parallel North, through Range 34 W. continued

chains	
	N. 89°41' W. on S. bdy. of sec. 33
	Descend gently over rolling ground between low ridges
28.40	Old trail course N. 10° W., S. 10° E.
30.00	Enter basin like Valley of about 200 acres course N. and S.
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit. In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked S.C. 1/4 S. on W. face
	Over level ground
69.00	Begin ascent along E. slope
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 3 and 33 marked S.C. T. 21 N. R. 34 W. on W. S. 33 on E. and S. 3 on W. faces with 4 grooves on E. and 2 grooves on W. faces. dug pits 24x18x12 ins. crosswise on each line 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft high N. of cor
	Land, level and rolling
	Soil, sandy 3rd rate
	Thin sand and bunch grass
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	N. 89°41' W. on S. bdy. of sec. 3
1.33	The old cor. of secs. 3 and 33 flat mound and pits with cedar stake in mound, no marks, this cor. is S. 1.33 chs. from the random, and the old cor. of T. 21 N., Rs. 34 and 35 W. is on the random, therefore the true course of the corrected parallel is N. 89.27' W. and the Northing 33 lks. per half mile from this old sec. cor. consequently I run
	N. 89°27' W. on S. bdy. of sec. 3
	Ascend over rolling ground
20.00	Top of ascent on ridge N. and S. 2 ft. above old cor. thence along N. slope, over ridges and ravines
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist.

5th Standard Parallel North, through Range 34 W. continued

Chains.

and raised a mound of earth 3½ ft. base 1½ ft. high over deposit

In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

S.C. ¼ S. on N. face

Thence along N. slope over broken ground

80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake 2 ins. in the ground for Standard cor. of secs. 31 and 32 marked

S.C. T. 21 N., R. 34 W. on N.

S. 32 on E. and

S. 31 on W. faces with 5 notches on E. and 1 notch on N. faces

dug pits 24×18×12 ins. crosswise on each line 3 ft. E. and N. and 7 ft. dist. N. of post, and raised a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, broken and rolling

Soil, sandy 3rd rate

Sand and bunch grass

N. 89° 23' W. on S. bdy. of sec. 31

Over broken foot hills

10.00 Begin gentle ascent along N. slope range

40.00 Deposit a charred stake 12 ins. in the ground for Standard ¼ sec. cor. dug pits 18×18×12 ins. E. and N. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit

In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

S.C. ¼ S. on N. face

42.00 Quinn's wire fence course N. and S.

48.00 Top of ascent on Range 10 ft. high, thence over broken ground.

63.00 Begin abrupt descent along N. slope range

74.00 Bottom descent. Enter Valley N. 20° E., S. 20° W. over level land

78.00 Trail course N. 30° E. and W. thence along the S. edge of an abandoned plowed field

81.80 The old cor. of T. 21 N., Rs. 34 and 35 W. md. and pits exhibited

Set an Oak post 3 ft. long 4 ins. sq. with charred stake 2 ins. in the ground for Standard T. cor. of T. 21 N., R. 34 and 35 W. marked S.C. T. 21 N. on N.

R. 34 W. S. 31 on E. and

R. 35 W. S. 36 on W. faces with 6 grooves on N. E. and W. faces

5th Standard Parallel North, through Range 34 W. concluded

Chains

dug pits 30×24×12 ins. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist. and raised a mound of earth 5 ft. base 2½ ft. high N. of cor.

Land, level, rolling and broken

Soil, sandy 3rd rate, sand and bunch grass.

I establish a true meridian at this cor. from my observation of April 18 by driving tack in top of cor. post and tack in stake firmly, drawn 5 chs. N. of cor.

The magnetic bearing of the true meridian is N. 13° 06' W. at 9 a.m. which reduced by the table on page 100 of the manual gives the mean magnetic declination 13° 03' E.

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5th Standard Parallel North, through Range 35 W.

Chains

The old Standard cor. of T. 21 N., Rs. 34 and 35 W. is N. 38.1 chs. from the random, in Ranges 35 and 36 and the old cor. of secs. 35 and 36 is N. 4.29 chs. from the random, therefore the course of the corrected parallel is N. 89° 35' W. and the northing 24 lks. per half mile from this old T. cor. consequently. run

N. 89° 35' W. on S. bdy. of sec. 36

Over level ground

14.80 Quinn's wire fence, course S. 83° W., N. 83° E.

25.00 Enter neck of slough extending to the N. E.

35.00 Leave slough, extends to N.

40.00 Deposit a charred stake 12 ins. in the ground for Standard ¼ sec. cor. dug pits 18×18×12 ins. E. and N. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit

In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked

S.C. ¼ S. on N. face

Over rolling valley land

53.00 Quinn's wire fence course N. 80° W. S. 80° E.

55.00 Trail course N. 80° W. S. 80° E. ascend along N. E. slope

79.00 Top of ascent 50 ft. above ¼ cor. thence along N. slope of low range

80.00 Set an Oak Post 3 ft. long 4 ins. sq. with charred stake 2 ins. in the ground for Standard cor. of secs. 35 and 36, marked

S.C. T. 21 N., R. 35 W. on N.

S. 36 on E. and

S. 35 on W. faces with 1 groove on E. and 5 grooves on W. faces

dug pits 24×18×12 ins. crosswise on each line E. and W.

5th Standard Parallel North, through Range 35 W. continued

Chains.	
	3 ft. dist. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, level and rolling
	Soil, Sandy 1st and 3rd rate
	Prairie and Sand grass
	N. 89° 35' W. on S. bdy. of sec. 35
0.36	The old Standard cor. of secs. 35 and 36, flat mound with pits and decayed ~~[illegible]~~ stake, this cor. is N. 4.29 chs. from the random and the old Standard 1/4 sec. cor. on S. bdy. of sec. 33 is N. 5.62 chs. from the random, therefore the course of the corrected parallel is N. 89.18' W. and the Northing 26 2/3 lks. for half mile
	from the old Standard sec. cor. consequently run
	N. 89° 18' W. on S. bdy. sec. 35
	Descend gently along N.W. slope
2.29	The old closing cor. secs. 1 and 2 T. 20 N. R. 35 W. on line
11.70	Trail S. 70° W., N. 70° E.
29.50	Quinn's wire fence course S. 70° W. N. 70° E. Enter level land
38.00	Begin ascent along S.E. slope foot hills
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit
	In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on N. face
40.44	Quinn's wire fence course N. and S. Quinn's house bearing S. 5 chs.
	Top of ascent 40 above Valley descend gently over sand ridges
60.00	Trail course N.E. and S.W.
64.00	Enter, neck of Valley which lies to S. of line
64.00	N. edge lake about 10 acres
75.00	Trail course N.E. and S.W.
80.00	Set an Oak post 3 ft. long 4 ins sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 34 and 35 marked S.C. T. 21 N., R. 35 W. on N.
	S. 35 on E. and
	S. 34 on W. faces, with two grooves on E. and 4 grooves on W. faces dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. and raised a mound of earth 4 ft. base

5th Standard Parallel North, through Range 35 W. continued

Chains	
	2 ft. high N. of cor.
	Land, level and rolling
	Soil, Sandy 2nd and 3rd rate
	Sand and bunch grass
	N. 89° 18' W. on S. bdy. sec. 34
	ascend
2.00	Top of ascent 10 ft. above cor. descend along S.W. slope
17.00	Bottom descent in neck of Valley, course S.E. and N.W.
35.00	Begin ascent along S.E. slope, N. 70° E., S. 70° W.
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit.
	In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
	ascend
41.74	Wire fence course N. and S.
43.00	Top of ascent 75 ft. high on S. point of range descend along S.W. slope over rolling ground
63.50	Trail at foot descending course N.W. and S.E.
	Fence over rolling ground
70.00	Begin gentle ascent over rolling ground
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 33 and 34 marked S.C. T. 21 N. R. 35 W. on N.
	S. 34 on E. and
	S. 33 on W. faces, with 3 grooves on E. and W. faces dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, level and rolling
	Soil, Sandy 2nd and 3rd rate
	Sand and Bunch
	N. 89° 18' W. on S. bdy. sec. 33
	Ascend along S. slope
1.07	Old closing cor. of secs. 3 and 4 T. 20 R. 35 W. N. 73 lks
19.00	Top of ascent 40 descend along S.W. slope over rolling ground

Chains	
24.50	Trail, course N.W. and S.E. over rolling ground
33.50	Trail course N. and S. ascend along S.E. slope
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist and raised a mound of earth 3½ ft. base 1½ ft. high over deposit. In E. pit drove an Oak stake 2 ft. long 2 ins sq. 12 ins. in the ground marked S.C. 1/4 S. on W. face
41.88	The old Standard 1/4 sec. cor. on S. bdy. of sec. 33 flat mound and pits, which is N. 5.62 chs. from the random and the old Standard cor. of secs. 3 and 33 which is W. of the random 5.76 chs. therefore the course of the corrected parallel is N. 89° 44' W. and the Northing 14 lks. for half mile from this old 1/4 sec. cor. consequently I run N. 89° 44' W. on S. bdy. of sec. 33
58.00	Top of ascent 5 from point of range, descend along S.W. slope
60.00	Trail course N. 70° W., S. 70° E. ascend along N.E. slope over rolling ground
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 3 and 33, marked S.C. T. 21 N., R. 35 W. on N. S. 33 on E. and S. 32 on W. faces, with 4 grooves on E. and 2 grooves on W. faces Dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W. and 5 ft. N. of post, and raised a mound of earth 4 ft. base 2 ft. high N. of cor. Sand rolling Soil, sandy 3rd rate Sand and bunch grass

N. 89° 44' W. on S. bdy. Sec. 34
Over rolling ground along N. slope

0.50	Old closing cor. secs. 4 and 5 T. 20 R. 35 on line
2.24	The old Standard cor. of secs. 3 and 33, flat mound with pits and remains of a decayed cedar post in mound This cor. is N. 5.76 chs. from the random and the old cor. of secs. 33 and 34 R. 36 W. is W. from the random 1.18 chs. therefore the course of the corrected parallel is S. 89° 19' W. and the Southing 46 lks. for half mile The distance from the old cor. of secs. 33 and 34 R. 36 W. to the old cor. being 40.60 chs. therefore the distance

Chains	
	from this old cor. to the Standard cor. of T. 21 N. Rs. 35 and 36, should be 161.04 chs. from this sec. cor. consequently I run S. 89° 19' W. on S. bdy. Sec. 32
3.20	Top of ascent 10 ft. above cor. and 50 ft. above Valley thence over rolling ground along top of low range
4.49	Wire fence, course N. and S. descend gently
35.75	Trail course N.E. and S.W. over rolling ground Ascending
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 E. and W. of cor 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit. In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face Corner is 20 lks W. of trail
42.00	Circular depression 10 deep ascend over rolling ground and low ridges
48.00	Top of ascent 4 from low ridge course N. and S. descend
64.00	Trail course N. and S. ascend over rolling ground
66.50	Top of ascent, thence over low ridges along top of low range
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 31 and 32, marked S.C. T. 21 N. R. 35 W. on W. S. 32 on E. and S. 31 on W. faces, with 5 grooves on E. and 1 groove on W. faces dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and W. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of cor. Sand rolling Sand hills Soil, sandy 3rd rate Sand and bunch grass

S. 89° 19' W. on S. bdy of sec. 31
Over rolling ground along top of low range descending

0.85	Old closing cor. secs. 5 and 6 T. 20 N., R. 35 W. W. 55 lks.
32.00	Bottom descent, thence ascend gently over rolling ground
34.00	Trail course N. and S.

5th Standard Parallel North, through Range 35 W. concluded

chains	
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and N. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit. In E. pit down an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on N. face over low ridges along top of range
83.28	Establish the cor. of T. 21 N. Rs. 35 and 36 W. set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins in the ground for Standard cor. of T. 21 N., Rs. 35 and 36, marked S.C. T. 21 N. on N. R. 35 W. S. 31 on E. and R. 36 W., S. 36 on W. faces, with 6 grooves on N.E. and N. faces dug pits 30x24x12 ins. crosswise on each line E. and N. 4 ft. and N. of post 8 ft. dist, and raised a mound of earth 5 ft. base 2½ ft. high N. of cor. Land, rolling sand hills Soil, sandy 3rd rate Bunch and sand grass

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Touching R. 36

5th Standard Parallel North, through Range 36 W.

chains	
	S. 89°19' W. on S. bdy Sec. 36
	Descend over rolling ground
3.50	Trail course N. 5° W., S. 5° E. at bottom descent 20 below cor.
	ascend gulch, over ridges along S.E. slope
31.00	Top of ascent thence descend over low ridges along S. W. slope, low range
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and N. of cor. 4 ft. dist and raised a mound of earth 3½ ft. base 1½ ft. high over deposit In E. pit down an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, ~~marked~~ S.C. 1/4 S. on N. face From this 1/4 cor. William Hayward's house bears S. 36° E. about 12 chs.
40.39	Wire fence course N. and S. ascend along S.E. slope, over low ridges
75.00	Top of ascent so about 1/4 on S. face range descend along S.W.

5th Standard Parallel North, through Range 36 W. continued

chains	
	S.W. slope over broken ground and ridges
80.00	Set an Oak post 3 ft long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs 35 and 36 marked S.C. T. 21 N, R. 36 W. on W. S. 36 on E. and S. 35 on W. faces, with 1 groove on E. and 1 grooves on W. faces. dug pits 24x18x12 ins. crosswise on each line and raised a mound of earth 4 ft. base 2 ft. high W. of cor. Land, rolling and broken sand hills Soil, sandy 3rd rate Sand and bunch grass As I failed to take the magnetic bearing of the meridian at the 5 p. cor. I turn an angle of 90° 41' from the W. to the N. from the corrected parallel, and the magnetic bearing of this line is N. 13° 10' W. which corrected for 5 o'clock p.m. by table on page 100 of the manual gives the mean magnetic declination 13° 09' E.
	S. 89° 19' W. on S. bdy of Sec. 36 along S. face, over ridges
6.00	Descend along S.W. slope
16.00	Bottom descent enter neck of Valley
38.00	Begin gentle ascent along S.E. slope
39.77	Hayward's wire fence, course N. and S.
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit. In the E. pit down an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face From this 1/4 cor. Robert Hayward's sod house bears N. 75° 40' E. 3.28 chs.
51.00	Begin abrupt ascent along S.E. slope range
56.00	Top of ascent 100 ft. above Valley, thence along S face range over broken ground
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 34 and 35 marked S.C. T. 21 N. R. 36 W. on W. S. 35 on E. and

chains	
	S. 34 on W. face, with 2 grooves on E. and 4 grooves on W. faces dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W. and 7 ft. dist. N. of post, and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, level and broken
	Soil, sandy 2nd and 3rd rate
	Bunch and prairie grass
	April 23 - 1895
	S. 89° 19' W. on S. bdy. of sec. 34
	Discend over broken ground
15.00	Begin gradual discent along S. W. slope
33.00	Trail, course N. 15° W., S. 15° E.
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
42.00	Bottom discent in head of ravine, course N. 30° W. ascend along N.E. slope over rolling ground
50.00	Top of ascent 45 ft. above 1/4 cor. thence along W. face range over ridges
80.00	Set an Oak Post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 33 and 34, marked
	S.C. T. 21 N., R. 36 W. on W.
	S. 34 on E. and
	S. 33 on W. faces, with 3 grooves on E. and W. faces, dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W. and 7 ft. N. of post, and raised a mound of earth 4 ft. base, 2 ft. high N. of cor.
	Land, rolling and broken sand hills
	Soil, sandy 3rd rate
	Bunch grass
	S. 89° 19' W. on S. bdy. of sec. 33 along W. face range
1.56	The old cor. of secs. 33 and 34, flat mound and pits, with cedar stake without marks, which is N. 1.18 chs.

chains	
	from the random, and the old cor. of secs. 32 and 33 is N. 0.23 chs. from the random, therefore the true course of the corrected parallel is S. 89° 23' W. and the Southing 45 1/2 lks. per half mile from this old sec. cor. consequently I run
	S. 89° 23' W. on S. bdy. of sec. 33
2.00	Begin descent along W. W. slope
6.00	Ravine, at foot of descent 30 ft. deep, ascend along W. slope
[illegible]	range over ridges
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x14 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 14 ins. in the ground, marked
	S.C. 1/4 S. on W. face
51.00	Top of ascent 75 ft. above Valley, discend along W. slope
77.39	Old closing cor. (flat md. and pits) of secs. 5 and 6 R. 36 W. T. 20 N. 10 lks. S.
80.00	Set an Oak Post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 32 and 33, marked
	S.C. T. 21 N., R. 36 W. on W.
	S. 33 on E. and
	S. 32 on W. faces, with 4 grooves on E. and 2 grooves on W. faces, dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W. and W. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of cor.
	Land, rolling sand hills
	Soil, sandy 3rd rate
	Bunch grass
	S. 89° 23' W. on S. bdy. of sec. 32
2.40	The old cor. of secs. 32 and 33, mound with pits, which is N. 0.23 chs. from the random, and the old cor. of secs. 31 and 32 which is N. 0.47 chs. from the random therefore the true course of the corrected parallel is N. 89° 46' W., and the Northing 17 lks. per half mile from his old sec. cor. consequently I run
	N. 89° 46' W. on S. bdy. of sec. 32

5th Standard Parallel North, through Range 36 W. continued

chains	
	Descend gently along N. W. slope range
30.00	Trail at bottom descent in Valley course N. 70° E., S. 70° W.
38.20	Trail course N. and S. ascend over rolling ground
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 Sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
43.00	Begin abrupt ascent along S.E. slope range, course N. 20° E., S. 20° W.
62.00	Top of ascent 100 ft. above Valley, thence along top of range over very broken ground
77.00	Begin gradual descent along W. slope, range
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of Secs. 31 and 32, marked
	S.C.T. 21 N. R. 36 W. on W.
	S. 32 on E. and
	S. 31 on W. faces, with 5 grooves on E. and 1 groove on W. faces dug pits 18x18x12 ins. crosswise on each line 3 ft. E. and W. and 7 ft. N. of post, and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, rolling and broken sand hills
	Soil, sandy, 3rd rate
	Sand and Bunch grass

	N. 89°46' W. on S. bdy. of Sec. 31
	Descend along W. slope
3.02	The old cor. of Secs. 31 and 32 flat mound, pits and cedar stake without marks, his cor. is N. 0.47 chs. from the random and the old 1/4 Sec. cor. S. bdy. Sec. 31 is South 1 link from the random, therefore the true course of the corrected parallel is S. 89° 43' W. and the Southing 48 lks. per half mile from his old Sec. cor. consequently I run
	S. 89° 43' W. on S. bdy. Sec. 31
14.00	Trail, course N. W. and S.E. at foot descent, ascend along W. slope
26.00	Top of ascent 30 ft. above trail, thence descend gently over ridges
40.00	Deposit a charred stake 2 ins. in the ground for Standard 1/4 Sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth

5th Standard Parallel North, through Range 36 W. continued

chains	
	Descend gently along N. W. slope range
30.00	Trail at bottom descent in Valley course N. 70° E., S. 70° W.
38.20	Trail course N. and S. ascend over rolling ground
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist and raised a mound of earth 3½ ft. base 1½ ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face
43.00	Begin abrupt ascent along S.E. slope range, course N. 20° E., S. 20° W.
62.00	Top of ascent 100 ft. above Valley, thence along top of range over very broken ground
77.00	Begin gradual descent along N. slope, range
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 31 and 36, marked S.C. T. 21 N. R. 36 W. on W. S. 36 on E. and S. 31 on W. faces, with 5 grooves on E. and 1 groove on W. faces dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W. and 7 ft. N. of post, and raised a mound of earth 4 ft. base 2 ft. high W. of cor.
	Sand, rolling and broken sand hills
	Soil, sandy 3rd rate
	Sand and Bunch grass

---

chains	
	N. 89° 46' W. on S. bdy. of sec. 31
	Descend along W. slope
3.03	The old cor. of secs. 31 and 36 flat mound, pits and cedar stake without marks, this cor. is N. 0.47 chs. from the random and the old 1/4 sec. cor. S. bdy. sec. 31 is South 1 link from the random, therefore the true course of the corrected parallel is S. 89° 53' W. and the Southing 48 lks. per half mile from this old sec. cor. consequently I run S. 89° 53' W. on S. bdy. sec. 31
14.00	Trail course N. W. and S.E. at foot descent, ascend along W. slope
26.00	Top of ascent 30 above trail, thence descend gently over ridges
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth

5th Standard Parallel North, through Range 36 W. concluded

chains	
	3½ ft. base 1½ ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face
43.43	The old 1/4 sec. cor. on S. bdy. of sec. 31, mound and pits, this cor. is South 1 link from the random, and the old cor. of T. 21 N., Rs. 36 and 37 W. is on the random line, therefore the course of the corrected parallel is N. 89° 55' W. from this old 1/4 cor. consequently I run N. 89° 55' W. on S. bdy. of sec. 31
	Descend gently along W. W. slope
45.00	Bottom descent 30 below 1/4 cor. ascend along E. slope
50.30	Trail N. 10° E., S. 10° W.
61.30	Wire fence course N. 40° E., S. 40° W.
	Thence over rolling ground along E face range ascending gently.
83.86	The old cor. of T. 21 N., Rs. 36 and 37 W. flat mound and pits, where I set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. T. 21 N. Rs. 36 and 37 W., marked S.C. T. 21 N., on W. R. 36 W., S. 31 on E. and R. 37 W. S. 36 on W. faces, with 6 grooves on N. E. and W. faces dug pits 30x24x12 ins. crosswise on each line 4 ft. E. and W. and 8 ft. dist W. of post, and raised a mound of earth 5 ft. base 2½ ft. high W. of cor
	At this cor. I turn an angle of 89° 55' from line prolonged to the W., to the North which should define a true meridian and find that the magnetic bearing of the line thus defined is N. 13° 10' W. at 4 o'clock P.M. which reduced by the table on page 100 of the manual gives the mean magnetic declination 13° 12' E
	Sand, rolling
	Soil, sandy 3rd rate
	Bunch grass

April 24-1895

5th Standard Parallel North, through Range 37 W.

chains	
	as the cor. of T. 21 N., Rs. 36 and 37 W. is N. 2.73 chs. from the run through ranges 37 and 38, random, and the old 1/4 sec. cor. on S. bdy. of sec. 36 is N. 2.00 chs. from random, therefor the course of the corrected parallel is S. 89° 01' W. and the Southing 73 lks. per half mile from the cor. of T. 21 N., Rs. 36 and 37 W. consequently I run
	S. 89° 01' W. on S. bdy of sec. 36
	over rolling ground
2.00	Descend slightly over rolling ground along N.W. face of low range.
9.00	Trail, course N.W. and S.E. at bottom descend thence over low ridges, on top of low range
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft high, over deposit. On E. pit drove an Oak stake ~~12 ins.~~ 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face
40.18	The old cor. on S. bdy. of sec. 36, flat mound with pits E. and W. this cor. is N. 2.00 chs. from random, and the old cor. of secs. 35 and 36 is N. 2.03 chs. from random therefor the course of the corrected parallel is N. 89° 53' W. and the Southing 3 lks. per half mile from this old 1/4 cor. consequently I run,
	N. 89° 53' W. on S. bdy of sec. 36
	Ascend slightly over foot hills
74.00	Top of ascent on low ridge, thence over rolling ground
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 20 ins. in the ground for Standard cor. of secs. 35 and 36 marked S.C. T. 21 N. R. 37 W. on W. S. 36 on E. and S. 35 on W. faces with 1 groove on E. and 5 grooves on W. faces, dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W. and 7 ft. dist. N. of post, and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, rolling sand hills
	Soil, sandy 3rd rate
	Sand and bunch grass

5th Standard Parallel, North, through Range 37 W. continued

chains	
	N. 89° 53' W. on S. bdy of sec. 35 —
	Ascend slightly over broken ground along N. face low range
0.46	The old cor. of secs. 35 and 36, flat mound and pits this cor. is N. 2.03 chs. from random, and the old 1/4 cor. on S. bdy. of sec. 35 is N. 1.76 chs. from random the true course of the corrected parallel is S. 89° 41' W. and the Southing 27 lks. per half mile from this old sec. cor. consequently I run
	S. 89° 41' W. on S. bdy. of sec. 35
17.00	Ridge, course N. and S. 40 ft. above cor. descend
33.00	Descend over broken foot hills
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit. On E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked S.C. 1/4 S. on W. face
40.73	The old 1/4 sec. cor. on S. bdy. of sec. 35, flat mound with pits E. and W. this cor. is N. 1.76 chs. from the random, and the old Standard 1/4 sec. cor. on S. bdy. of sec. 34 which is N. 1.41 chs. from the random, therefor the course of the corrected parallel is S. 89° 49' W. and the Southing 35 lks per half mile, consequently I run
	S. 89° 49' W. on S. bdy. of sec. 35 —
	Ascend over rolling ground
46.00	Low ridge or sand bluff, descend over broken sand bluffs.
65.70	Bottom descent in ravine or pass, course N. 60° E., S. 60° W. at foot of range. ascend abruptly along S.E. slope
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 34 and 35, marked S.C. T. 21 N. S. 35 on E. and S. 34 on W. faces, with 2 grooves on E. and 4 grooves on W. faces, dug pits 24x18x12 ins. crosswise on each line 3 ft. E. and W. and 7 ft. dist. N. of cor. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, rolling and broken sand hills

S^th Standard Parallel North, through Range 37 W. continued

chains	
	Soil, sandy 3rd rate
	Sand and bunch grass
	April 24-1895
	S. 89°49' W. on S. bdy. of sec. 34
	ascend along S.E. face range
16.00	Top of ascent 150 ft. above Valley, descend along N. slope
36.00	Trail, course N.W. and S.E. in ravine or pass. ascend
	along N.E. slope over low ridges
40.00	Deposit a charred stake 12 ins. in the ground for Standard
	1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist.
	and raised a mound of earth 3½ ft. base 1½ ft. high
	over deposit
	In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12
	ins. in the ground, marked
	S.C. 1/4 S. on W. face
40.98	The old 1/4 sec. cor. on S. bdy. of sec. 34, flat mound, with pits
	this cor. is N. 1.41 chs. from random, and the old 1/4
	cor. on S. bdy. of sec. 33 is S. 13 lks. from the random
	therefore the course of the corrected parallel is S. 87° 57' W
	and the southing 77 lks. per half mile
	from this old 1/4 sec. cor. consequently I run
	S. 87° 57' W. on S. bdy. of sec. 34
	along N. slope of range over ridges and ravines
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24
	ins. in the ground for Standard cor. of secs. 33 and 34, marked
	S.C. T. 21 N., R. 37 W. on W.
	S. 34 on E. and
	S. 33 on W. faces with 3 grooves on E. and W. faces. dug pits
	24x18x12 ins. crosswise on each line 3 ft. E. and W. and 7 ft.
	N. of post, and raised a mound of earth 4 ft. base 2 ft. high
	N. of cor.
	Sand, broken and rolling sand hills
	Soil, sandy 3rd rate
	Bunch and Sand grass
	S. 87° 57' W. on S. bdy. of sec. 33
	Descend along N. slope range, over low ridges
1[illegible].00	Bottom descent, 30 ft. below cor. ascend slightly along N. slope

S^th Standard Parallel North, through Range 37 W. continued

chains	
38.00	Top of ascent 40 ft. above, thence descend along N.W. slope
	over low ridges
40.00	Deposit a charred stake 12 ins. in the ground for Standard
	1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist.
	and raised a mound of earth 3½ ft. base
	1½ ft. high over deposit
	In E. pit drove an Oak stake 2 ft. long 2 ins. sq.
	12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
41.41	The old 1/4 cor. on S. bdy. of sec. 33, mound and pits, this cor
	is S. 13 lks. from random, and the old Standard
	cor. of secs. 32 and 33 is N. 0.80 chs. from random
	therefore the course of corrected parallel is N. 88° 36' W.
	and the Northing 93 lks. per half mile
	from this old 1/4 cor. consequently I run
	N. 88° 36' W. on S. bdy. of sec. 33
67.00	Trail, course S. 20° E., N. 35° W. at foot of descent, thence
	ascend along N.E. slope over rolling ground
75.00	Top of ascent 75 ft. above Valley on N. slope range
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins.
	in the ground for Standard cor. of secs. 32 and 33 marked
	S.C. T. 21 N., R. 37 W. on N.
	S. 33 on E. and
	S. 32 on W. faces with 4 grooves on E. and 2 grooves on W.
	faces dug pits 24x18x12 ins. crosswise on each line
	3 ft. E. and W. and N. of post 7 ft. dist. and raised a mound
	of earth 4 ft. base 2 ft. high N. of cor.
	Sand, rolling sand hills
	Soil, sandy 3rd rate
	Sand and bunch grass
	N. 88° 36' W. on S. bdy. of sec. 32
	along N. slope range
1.68	The old Standard cor. of secs. 32 and 33 flat mound and
	pits, with cedar stake in mound, with marks defaced
	this cor. is N. 0.80 chs. from the random, and the old 1/4 sec.
	cor. on S. bdy. of sec. 32 is N. 0.80 chs. from the random
	therefore the corrected parallel is N. 89° 56' W. and there is no
	northing or southing
	from this old sec. cor. consequently I run

5th Standard Parallel North, through Range 37 W. continued

Chains	
	N. 89° 56' W. on S. bdy. of secs. 34
	Descend slightly along N. W. slope over ridges
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
41.89	The old 1/4 sec. cor. on S. bdy sec. 34, mound and pits this cor. is N. 0.80 chs. from random, and the old cor. of secs. 31 and 34, is 0.75 chs from random, therefore the course of the corrected parallel is West, and the Southing 5 chs. per half mile from this old 1/4 cor. consequently I run
	West on S. bdy. of sec. 34
46.30	Trail course, N. and S. at foot of descent in neck of Valley ascend gently along N.E. slope range
53.00	Top of ascent 40 ft. above Valley, thence along N. slope range over ridges
75.00	Begin gentle descent
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 31 and 34 marked S. T. 21 N., R. 37 W. on N. S. 34 on E. and S. 31 on W. faces, with 5 grooves on E. and 1 groove on W. faces dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 5 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, rolling sand hills
	Soil, sandy 3rd rate
	Sand and bunch grass

	West on S. bdy. of sec. 31
	Descend gently along N. slope over ridges and ravines
7.24	The old cor. of secs. 31 and 34, mound and pits with a cedar stake in mound with marks defaced, this cor is N. 0.75 chs. from random, and the old 1/4 cor. on S. bdy. of sec. 31 is N. 2.26 chs. from random, therefore the course of the corrected parallel is N. 89° 45' W. and the Nothing

5th Standard Parallel North, through Range 37 W. concluded

Chains	
	151 lks. per half mile. from this old 1/4 cor. consequently I run
	N. 89° 45' W. on S. bdy. of sec. 31
7.00	Low ridge on bluff, descend along N. slope range
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft base 1 1/2 ft. high over deposit.
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
42.57	The old 1/4 sec. cor. on S. bdy. of sec. 31, flat mound and pits. this cor. is N. 2.26 chs. from the random, and the old cor. of T. 21 N., Rs. 37 and 38 W. is N. 2.40 chs. from the random therefore the course of the corrected parallel is N. 89° 44' W. from this old 1/4 cor. consequently I run
	N. 89° 44' W. on S. bdy. of sec. 31
	Over low ridges, along N. slope range
47.00	Begin gentle ascent along N. W. slope
82.90	The old cor. of T. 21 N., Rs. 37 and 38, mound and pits where I set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of T. 21 N., Rs 37 and 38 W. marked S.C. T. 21 N. on N. R. 37 W., S. 31 on E. and R. 38 W. S. 36 on W. faces, with 6 grooves on N.E. and W. faces dug pits 30x24x12 ins. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist. and raised a mound of earth 5 ft. base 2 1/2 ft. high N. of cor.
	Land, rolling
	Soil, sandy 3rd rate
	Sand and bunch grass
	I turn an angle of 89° 44' to the N. from my line prolonged, and the magnetic bearing of the meridian thus determined is N. 13° 05' W. at 2 o'clock P.M. which reduced by the table on page 100 of the manual gives the mean magnetic decl. 13° 17' E.
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5th Standard Parallel North, through Range 38 W.

chains

As the cor. of T. 21 N., Rs. 37 and 38 W. is N. 2.40 chs. from the random, and the old 1/4 sec. cor. on the S. bdy. of sec. 37 is N. 1.36 chs. from the random, therefore the course of the corrected parallel is S. 89°54' W. and the Southing 11 1/2 lks per half mile

from the cor. of T. 21 N., Rs. 37 and 38 W. consequently I run

S. 89°54' W. on S. bdy. of sec. 36

Over nearly level ground

30.00 Foot of range, course N. 60° E., S. 60° W. ascend along S.E. slope

40.00 Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit.

On E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked

S.C. 1/4 S. on N. face

ascend gradually

43.00 Ascend over broken ground, along S.E. face of range

77.00 Top of ascent 150 ft. above Valley. on Sand peak over broken ground

80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 35 and 36 marked

S.C. T. 21 N., R. 38 W. on N.

S. 36 on E. and

S. 35 on W. faces, with 1 groove on E. and 5 grooves on W. faces, dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, level and broken

Soil sandy 3rd rate

Sand and bunch grass

S. 89°54 W. on S. bdy. of sec. 35

Over broken ground along top of range

13.00 Begin descent along W. slope

38.00 Bottom descent, thence over rolling foot hills, descending gently.

40.00 Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth

5th Standard Parallel, North, through Range 38 W. continued

chains

3 1/2 ft. base 1 1/2 ft. high over deposit

On E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

S.C. 1/4 S. on N. face

49.00 Descend gently along W. slope

71.50 Enter level land course N. 80° W., S. 80° E. over level land

80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 34 and 35 marked

S.C. T. 21 N., R. 38 W. on N.

S. 35 on E. and

S. 34 on W. faces, with 2 grooves on E. and 4 grooves on W. faces. dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, level and rolling

Soil, sandy 3rd rate

Sand and bunch grass

S. 89°54' W. on S. bdy. sec. 34

Over level land

40.00 Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit

On E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked

S.C. 1/4 S. on N. face

48.00 Leave level ground, ascend along S.E. slope low range

57.00 Top of ascent, thence over rolling ground along S. slope low range

80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 33 and 34, marked

S.C. T. 21 N., R. 38 W. on N.

S. 34 on E. and

S. 33 faces, with 3 groves on E. and W. faces. dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, level and rolling

5th Standard Parallel North, through Range 38 W. continued

chains	
	Soil, sandy 3rd rate.
	Sand and bunch grass
	S. 89° 54' W. on S. bdy. of sec. 33
	Over broken foot hills
4.50	Descend over rolling ground gently
20.00	Trail course, N. W. and S. E.
30.00	Bottom descend in ravine course N. and S. over foot hills
34.00	Trail course N. and S. ascend over rolling ground
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins in the ground, marked
	S.C. 1/4 S. on W. face
43.00	Top of ascent 50 ft. above valley, thence over rolling ground along top of low range
73.00	Descend along W. slope
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 32 and 33 marked
	S.C. T. 21 N., R. 38 W. on W
	S. 33 on E. and
	S. 32 on W. faces, with 4 grooves on E. and 2 grooves on W. faces. dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and W. of post 7 ft. dist, and raised a mound of earth 4 ft. base 2 ft. high W. of cor.
	Sand, broken
	Soil, sandy 3rd rate
	Bunch and Sand grass
	April 25 - 1895
	S. 89° 5' W. on S. bdy of sec. 32
	Descend along S. W. slope
14.00	Bottom descent, enter valley W. and S. thence over level ground
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. ft. base 1 1/2 ft. high over deposit

5th Standard Parallel North through Range 38 W. continued

chains	
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
42.37	The old 1/4 sec. cor. on S. bdy. of sec. 32, mound and pits with stake in mound, this cor. is N. 1.36 chs. from the random, and the old cor. of secs. 31 and 32 is N. 0.85 chs. from the random, therefore the course of corrected parallel is S. 89° 12' W. and the Southing 61 lks. per half mile from this old 1/4 sec. cor. consequently I run
	S. 89° 12' W. on S. bdy. of sec. 32 — 89° 16
	Over level land
64.00	Foot of range S. 70° W., N. 70° E. ascend very abruptly
70.00	Top of ascent 100 ft. above valley, thence along top of range over rolling ground ascending
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs 31 and 32, marked
	S.C. T. 21 N., R. 38 W. on W.
	S. 32 on E. and
	S. 31 on W. faces, with 2 grooves on E. and 1 groove on W. faces dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and W. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of cor.
	Sand, level and broken
	Soil, sandy 3rd rate
	Bunch and Sand grass
	S. 89° 12' W. on S. bdy of sec. 31 — 89° 16
0.50	High pt. of range, on S. face, 15 ft. high thence over broken ground along top of range
2.59	The old cor. of secs. 31 and 32, flat mound and pits with stake in mound, this cor. is N. 0.85 chs. from random and the old 1/4 sec. cor. on S. bdy. of sec. 31 is N. 0.32 chs from random, therefore the course of the corrected parallel is S. 89° 27' W. and the Southing 43 lks. per half mile from this old cor. of secs. 31 and 32 consequently I run
	S. 89° 27' W. on S. bdy of sec. 31 — 89° 15'
	Over broken ground
73.00	Begin gradual descent along S. slope of range

5th Standard Parallel North, through Range 38 N. concluded

chains.

40.00 Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and N. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit

On E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

S.C. 1/4 S. on N. face

42.86 The old 1/4 sec. cor. on S. bdy. of sec. 31, mound and pits this cor. is N. 0.32 chs. from the random and the cor. of T. 21 N., Rs. 38 and 39 N. is, on the random therefore the course of the corrected parallel is S. 89° 12' W. from this old 1/4 sec. cor. consequently I run

89° 33'

S. 89° 12' W. on S. bdy of sec. 31

Descend along S. N. slope range

71.50 Bottom descend in ravine, course N. N. thence over rolling ground

83.10 The old cor. of T. 21 N., Rs. 38 and 39 N. mound and pits Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of T. 21 N., Rs. 38 and 39 N. marked

S.C. T. 21 N. on N.

R. 38 N. S. 31. on E. and

R. 39 N., S. 36 on W. faces, with 6 grooves on N. E. and W. faces dug pits 30 x 24 x 12 ins. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist. and raised a mound of earth 5 ft. base 2½ ft. high N. of cor.

Land broken and rolling

Soil, sandy 3rd rate

Bunch and sand grass

April 26 - 1895.

Juce Sim R. 39

5th Standard Parallel North, through Range 39 N.

89° 55' is the correction for the whole mile not the m.

89 50'

As the cor. of T. 21 N. Rs. 38 and 39 is N. 2.48 chs from the random, and the old 1/4 sec. cor. on S. bdy. of sec. 36 R. 39 N. is N. 2.37 chs. from the random, therefore the course of the corrected parallel is S. 89° 55' W. and the Southing 11 lks. per half mile from the cor. of T. 21 N., Rs. 38 and 39 N. consequently I run

5th Standard Parallel North, through Range 39 N. continued

chains

S. 89° 55' W. on S. bdy. of sec. 36 — 89° 50'

Over rolling ground along N. slope of range

40.00 Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and N. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit

On E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

S.C. 1/4 S. on N. face

40.34 The old 1/4 sec. cor. on S. bdy. of sec. 36, mound and pits this old cor. is N. 2.37 chs. from the random, and the old cor. of secs. 35 and 36 is N. 2.90 chs. from the random therefore the course of the corrected parallel is N. 89° 10' W. and the Northing 13 lks. per half mile from this old 1/4 sec. cor. consequently I run — 89° 15'

N. 89° 10' W. on S. bdy of sec. 36

Over rolling ground descending gently

70.00 Enter level land course N.E. and S.W.

80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins in the ground for Standard cor. of secs. 35 and 36 marked

S.C. T. 21 N. R. 39 N. on N.

S. 36 on E. and

S. 35 on W. faces. with 1 groove on E. and 5 grooves on W. faces. dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high N. of cor.

Land, rolling

Soil, sandy 3rd rate

Sand grass

N. 89° 10' W. on S. bdy. of sec. 35 — 89° 15'

Over level ground

0.44 The old cor. of secs. 35 and 36, mound and pits this cor. is N. 2.90 chs from the random, and the old 1/4 sec. cor. on S. bdy. of sec. 35 is N. 3.66 chs. from random therefore the course of the corrected parallel is S. 89° 43' W. and the Southing 7 lks. per half mile from this old cor. of secs. 35 and 36, consequently I run — 89° 37'

5th Standard Parallel North, through Range 39 W. continued

	chains	
89° 39		S. 89°43' W. on S. bdy. of sec. 35
		Over level land
	40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit
		In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
		S.C. 1/4 S. on N. face
	40.73	The old 1/4 sec. cor. on S. bdy. of sec. 35, mound and pits this cor. is N. 2.66 chs. from the random, and the old cor. cor. of secs. 32 and 33 is N. 0.88 chs. from the random therefore the course of the corrected parallel is S. 89°34' W. and the Southing 35 1/2 lks. per half mile from his old 1/4 sec. cor. consequently I run
89°30'		S. 89°34' W. on S. bdy of sec. 35
	46.00	Begin gradual ascent along S.E. slope of range
	80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 34 and 35 marked
		S.C. T. 21 N. R. 39 W. on N.
		S. 35 on E. and
		S. 34 on W. faces, with 2 grooves on E. and 4 grooves on W faces. dug pits 24x18x12 ins. crosswise on each line. E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
		Land, level and rolling
		Soil sandy 3rd rate
		Sand and bunch grass
89° 30'		S. 89°34' W. on S. bdy. of sec. 34
		Ascend along S.E. face of range over broken ground
	8.00	Descend along W. slope ridge
	16.00	Trail, course N. and S.
	18.00	Bottom descent ascend along S.E. slope bluff over broken ground
	38.50	Top of ascent 70 ft. thence along S. face over broken ground
	40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base

5th Standard Parallel North, through Range 39 W. continued

chains	
	1 1/2 ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on N. face
	Ascend over very broken ground
63.00	Top of range 100 ft. high course S.W. and N. 80° E. descend gradually along N.W. slope
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 33 and 34 marked
	S.C. T. 21 N. R. 39 W. on N
	S. 34 on E. and
	S. 33 on W. faces, with 3 grooves on E. and W. faces. dug pits 24x18x12 ins. crosswise on each line, E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, broken sand hills
	Soil, sandy 3rd rate
	Bunch grass
	S. 89°34' W. on S. bdy. of sec. 33
	Over ridges and ravines, along N. slope of range
40.00	Deposit a charred stake 12 ins. ins in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit.
	In E. pit drove an Oak stake 2 ft. long 2 ins. sq 12 ins. in the ground, marked
	S.C. 1/4 S. on N. face
	Descend gradually along N.W. slope
52.00	Bottom descent in ravine, course N.W. and S.E. ascend over rolling foot hills
63.00	Top of ascent 40 ft. above ravine, thence over rolling ground along top of low range
77.50	Descend along W. slope over rolling ground
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs 32 and 33, marked
	S.C. T. 21 N. R. 39 W. on N.
	S. 33 on E. and
	S. 32 on W. faces, with 4 grooves on E. and 2 grooves on W

89°30

5th Standard Parallel North, through Range 39 W. continued

Chains	
	faces, dug pits 24x18x12 ins. crosswise on each line E. and W. 4 ft. dist. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land broken and rolling
	Soil, Sandy 3rd rate
	Bunch grass
	S. 89° 34' W. on S. bdy. of sec. 34
	Descend over rolling ground
2.60	The old cor. of secs. 34 and 33, mound and pits, this cor. is N. 88 lks. from the random, and the old 1/4 sec. cor. on S. bdy. of sec. 34 is N. 1.53 chs. from the random, therefore the course of the corrected parallel is N. 89° 00' W. and the Northing 65 lks. per half mile from the old cor. of secs. 34 and 33, consequently I run
	N. 89° 00' W. on S. bdy. of sec. 34
	Over rolling ground along N. slope
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit
	On E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked
	S.C. 1/4 S. on N. face
42.77	The old 1/4 sec. cor. on S. bdy. of sec. 34, mound and pits this cor. is N. 1.53 chs. from the random, and the old cor. of secs. 3 and 34 is N. 87 lks. from the random therefore the course of the corrected parallel is S. 89° 07' W. and the Southing 66 lks. per half mile from this old 1/4 sec. cor. consequently I run
	S. 89° 07' W. on S. bdy. of sec. 34
	Ascend gradually along E. slope
49.00	Top of ascent 50 ft. above 1/4, thence along top of low range descending gently
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 31 and 34, marked
	S.C. T. 21 N., R. 39 W. on N.
	S. 34 on E. and

5th Standard Parallel North, through Range 39 W. continued

Chains	
	S. 31 on W. faces, with 5 grooves on E. and 1 groove on W. faces, dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, rolling
	Soil, Sandy 3rd rate
	Land and Bunch grass
	S. 89° 07' W. on S. bdy. of sec. 31 (89° 04')
2.99	The old cor. of secs. 31 and 34, mound and pits, this cor. is N. 87 lks. from the random, and the old 1/4 sec. cor. on S. bdy. of sec. 31 is N. 97 lks. from the random therefore the course of the corrected parallel is N. 89° 54' W. and the Northing 5 lks. per half mile from this old cor. of secs. 31 and 34, consequently I run (89° 56')
	N. 89° 54' W. on S. bdy. of sec. 31
	Over rolling ground along top of low range course of range N.E. and S.W.
6.00	Begin descent along N. slope
70.00	Bottom descent in ravine or pass course N. and S. ascend along E. slope over rolling ground
40.00	Deposit a charred stake 12 ins. in the ground for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base, 1½ ft. high over deposit
	On E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
	S.C. 1/4 S. on N. face
	ascend over rolling ground
42.87	The old 1/4 sec. cor. on S. bdy. of sec. 31, mound and pits this old cor. is N. 92 lks. from the random and the old cor. of T. 21 N., R. 39 and 40 W. is N. 48 lks. from the random, therefore the course of the corrected parallel is S. 89° 38' W. (89° 22') from this old 1/4 sec. cor. consequently I run
	S. 89° 38' W. on S. bdy. of sec. 31
57.00	Top of ascent 50 ft. above Valley, on W. face low range descend along W. slope very gradually
73.00	Bottom descent in neck of Valley course N. and S.

5th Standard Parallel North, through Range 39 W. concluded

Chains	
	ascend along N.E. slope gradually
83.21	The old cor. of T. 21 N. R. 39 and 40 W. mound and pits with stake, marks defaced, where I set an Oak post 3 ft long 4 ins. sq. with charred stake, and the old stake 24 ins. in the ground for Standard cor. of T. 21 N., R. 39 and 40 W. marked S.C. T. 21 N. on N. R. 39 W., S. 31 on E. and R. 40 W., S. 36 on W. faces, with 6 grooves on N.E. and W. faces, dug pits 30x24x12 ins. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist. and raised a mound of earth 5 ft. base 2½ ft. high N. of cor. Land, rolling Soil, sandy 3rd rate Sand and Bunch grass April 27 — 1895

5th Standard Parallel North, through Range 40 W.

Chains	
	As the cor. of T. 21 N., R. 39 and 40 W. is N. 48 lks. from the random, and the cor. of secs. 35 and 36 R. 40 W. is S. 12 lks. from the random, therefore the bearing of the corrected parallel is S. 89° 38' W. and the Southing 30 lks. per half mile from this cor. of T. 21 N. R. 39 and 40 W. consequently I run
89° 34'	S. 89° 38' W. on S. bdy. of sec. 36 Ascend along E. slope
8.00	Top of ascent 50 above cor. 100 above Valley, on ridge or bluff, descend along N.W. slope over broken ground
37.00	Bottom descend in ravine, ascend over rolling ground along N. slope of range
40.00	Deposit a charred stake 12 ins. in the ground for Standard ¼ sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 14 ins. in the ground, marked S.C. ¼ S. on N. face Ascend gently along N. slope of range
57.00	Top of ascent on N. slope of range 75 above Valley descend

5th Standard Parallel North, through Range 40 W. continued

Chains	
	gently over rolling ground
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 35 and 36 marked S.C. T. 21 N. R. 40 W. on N. S. 36 on E. and S. 35 on W. faces, with 1 groove on E. and 2 grooves on W. faces, dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of cor. 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor. Land, broken and rolling Soil, sandy 3rd rate Sand and Bunch grass

89° 34'

	S. 89° 38' W. on S. bdy. of sec. 35 Over rolling foot hills
0.35	The old cor. of secs. 35 and 36, mound and pits, this cor. is S. 12 lks. from the random, and the old ¼ sec. cor. on S. bdy. of sec. 34 is N. 46 lks. from the random therefore the course of the corrected parallel is N. 89° 40' W. and the Northing 19 lks. per half mile from this old cor. of secs. 35 and 36, consequently I run
	N. 89° 40' W. on S. bdy. of sec. 35 Descend gently over rolling ground
37.00	Enter level Valley, course S. 70° W. N. 70° E.
40.00	Deposit a charred stake 12 ins. in the ground for Standard ¼ sec. cor. dug pits 18x18x12 ins. E. and W. of cor. 4 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high over deposit In E. pit drove an Oak Stake 2 ft. long 2 ins. sq. 14 ins. in the ground, marked S.C. ¼ S. on N. face
45.00	Top of range course N. 80° E. S. 80° W. ascend gradually along S.E. slope
61.00	Top of ascent 75 above Valley, thence along S. face of range over ridge and broken ground
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 34 and 35 marked S.C. T. 21 N., R. 40 W. on N.

5 8 chs. per mile or 29 chs. per ½ mile

N. 89° 35'

5th Standard Parallel North, through Range 40 W. continued

	chains	
		S. 35 on E. and
		S. 34 on W. faces, with 2 grooves on E. and 4 grooves on W. faces
		dug pits 24 x 18 x 12 ins. crosswise on each line E. and
		W. 3 ft. and N. of post 7 ft. dist. and raised a mound
		of earth 4 ft. base 2 ft. high N. of cor.
		Sand, rolling and broken
		Soil, sandy 3rd rate
		Sand and Bunch grass
89° 35'		N. 89° 40' W. on S. bdy. of sec. 34
		Ascend very abruptly along S.E. face
	10.00	Top of ascent 150 ft. above Valley on S. face bluff descend
		along S. W. slope over broken ground
	35.00	Bottom descend in ravine or pass, course N. W. and S.E.
		thence over rolling foot hills
	40.00	Deposit a charred stake 12 ins. in the ground for
		Standard 1/4 sec. cor. dug pits 18 x 18 x 12 ins. E. and W.
		of cor. 4 ft. dist. and raised a mound of earth 3½ ft.
		base 1½ ft. high over deposit
		An E. pine drove an Oak stake 2 ft. long 2 ins. sq.
		12 ins. in the ground, marked
		S.C. 1/4 S. on W. face
	41.03	The old 1/4 sec. cor. on S. bdy. of sec. 34, mound and
		pits, this cor. is N. 46 lks. from the random and
		the old 1/4 sec. cor. on S. bdy. of sec. 33 is N. 11 lks. from
		the random, therefore the course of the corrected
89° 45'		parallel is S. 89° 49' W. and the South bng 17½ lks
		per half mile
		from this old 1/4 sec. cor. consequently I run
		S. 89° 49' W. on S. bdy. of sec 34
		Over rolling ground along W. slope, descend gently
	60.00	Bottom descend in ravine or pass, course N. W. and
		S.E. ascend over rolling ground
	80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake
		24 ins. in the ground for Standard cor. of secs. 33 and 34
		marked
		S.C. T. 21 N., R. 40 W. on N.
		S. 34 on E. and
		S. 33 on W. faces, with 3 grooves on E. and W. faces dug
		pits 24 x 18 x 12 ins. crosswise on each line E. and W.

5th Standard Parallel North, through Range 40 W. continued

	chains	
		3 ft. and N. of post 7 ft. dist. and raised a mound
		of Earth 4 ft. base 2 ft. high N. of cor.
		Sand, rolling and broken
		Soil, sandy 3rd rate
		Sand and bunch grass
89° 45'		S. 89° 49' W. on S. bdy. of sec. 33
		Ascend slightly over rolling ground
	24.00	Top of ascent 30 ft. above cor. descend over rolling ground
	39.70	Bottom descent, in ravine or pass, course N. and S.
	40.00	Deposit a charred stake 12 ins. in the ground for
		Standard 1/4 sec. cor. dug pits 18 x 18 x 12 ins. E. and W. of
		cor. 4 ft. dist. and raised a mound of earth 3½ ft.
		base 1½ ft. high over deposit
		An E. pine drove an Oak stake 2 ft. long 2 ins. sq.
		12 ins. in the ground, marked
		S.C. 1/4 S. on W. face
		Ascend slightly
	41.46	The old 1/4 sec. cor. on S. bdy. of sec. 33, mound and pits
		with stake in mound, this cor. is N. 11 lks. from
		the random, and the old cor. of secs. 3 and 33 is
		N. 38 lks. from the random, therefore the course
		of the corrected parallel is N. 89° 33' W. and the
		Northing is 27 lks. per half mile
		from this old 1/4 sec. cor. consequently I run
89° 34'		N. 89° 33' W. on S. bdy. of sec. 33
		Ascend slightly over rolling ground
	48.00	Pass or ravine, course N. and S. ascend along W. E.
		slope of range
	80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake
		24 ins. in the ground for Standard cor. secs. 3 and
		33, marked
		S.C. T. 21 N. R. 40 W. on N.
		S. 33 on E. and
		S. 3 on W. faces, with 4 grooves on E. and 2 grooves on W.
		faces. dug pits 24 x 18 x 12 ins. crosswise on each line
		E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound
		of earth 4 ft. base 2 ft. high
		Sand, rolling
		Soil, sandy 3rd rate

5th Standard Parallel North, through Range 40 W. continued

chains	Sand and bunch grass
	N. 89° 33' W. on S. bdy of sec. 32
	ascend along N. E. slope of range
1.62	The old cor. of secs. 32 and 33, mound and pits
	This old cor. is N. 38 lks. from the random, and the old
	1/4 sec. cor. on S. bdy. of sec. 32 is N. 36 lks. from the random
	therefore the course of the corrected parallel is N. 89° 58' W.
	and the Northing 2 lks per half mile
	from this old cor. of secs 32 and 33, consequently I run
	N. 89° 58' W. on S. bdy. of sec. 32
15.00	Top of ascent 100 ft. above Valley, on N. face of range, thence
	over rolling ground
30.00	Begin descent along N. slope
40.00	Deposit a charred stake 12 ins. in the ground for
	Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W.
	of cor. 4 ft. dist. and raised a mound of earth
	3 1/2 ft. base 1 1/2 ft. high over deposit
	In E. pit drove an Oak Stake 2 ft. long 2 ins. sq.
	12 ins. in the ground, marked
	S. C. 1/4 S. on N. face
41.70	The old 1/4 sec. cor. on S. bdy. of sec 32. mound and pits with
	old stake in mound, this cor. is N. 36 lks. from the
	random, and the old closing cor. of T. 20 N., Rs. 40
	and 41 W. is S. 6 lks. from the random, therefore
	the course of the corrected parallel is S. 88° 52' W.
	from this old 1/4 sec. cor. consequently I run
	S. 88° 52' W. on S. bdy of sec. 32
45.00	Bottom descent at foot of bluffs, course N. 30° E.
	and S. 30° W. ascend abruptly
52.00	Top of ascent 100 ft. above Valley, course N. E. and S. W.
	thence over broken ground
61.00	Begin descent along N. slope
62.11	The old closing cor. T. 20 N., Rs. 40 and 41 W. this cor. is S. 6 lks.
	from the random, and the old cor. of secs. 31 and
	32 is S. 14 lks. from the random, therefore the course of
	the corrected parallel is S. 89° 50' W. and the Southing
	16 lks. per half mile
	from this old closing cor. T. 20 N., Rs. 40 and 41 W. consequently I run

89° 37'

N. 36 lks
S. 06 "
S. 42 "
= 1.64 to 80 lks =
1.10
88° 50'

5th Standard Parallel North, through Range 40 W. continued

chains	S. 89° 50' W. on S. bdy. of sec. 32
	Descend gently along N. slope
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins.
	in the ground for Standard cor. of secs. 31 and 32 marked
	S. C. T. 21 N. R. 40 on N.
	S. 32 on E. and
	S. 31 on W. faces, with 5 grooves on E. and 1 groove on W. faces,
	dug pits 24x18x12 ins. crosswise on each line E. and W.
	3 ft. and N. of post 7 ft. dist. and raised a mound
	of earth 4 ft. base 2 ft. high N. of cor.
	Land rolling and broken
	Soil, Sandy 3rd rate
	Sand and Bunch grass
	April 27 – 1895
	S. 89° 47' W. on S. bdy. of sec. 31
1.87	The old cor. of secs. 31 and 32, mound and pits with room
	Eaten stake in mound, this cor. is S. 14 lks. from the
	random, and the old 1/4 sec. cor. on S. bdy. of sec. 31 is S. 71
	lks. from the random, therefore the true course of the
	corrected parallel is S. 89° 16' W. and the Southing
	57 lks. per half mile
	from the old cor. of secs. 31 and 32, consequently I run
	S. 89° 16' W. on S. bdy. of sec. 31
	ascend gently along N. E. slope
36.00	Top of ascent 30 ft. above sec. cor. thence along N. slope over
	rolling ground.
40.00	Deposit a charred stake 12 ins. in the ground for
	Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and W. of
	cor. 4 ft. dist. and raised a mound of earth 3 1/2 ft. base
	1 1/2 ft. high over deposit
	In E. pit drove an Oak stake 2 ft. long 2 ins. sq. 12
	ins. in the ground, marked
	S. C. 1/4 S. on N. face
42.10	The old 1/4 sec. cor. on S. bdy. of sec. 31 mound and pits
	with stake in mound, this cor. is S. 71 lks from
	the random, and the cor. of T. 21 N., Rs. 40 and 41 W.
	which is on the random line, therefore the
	course of the corrected parallel is N. 88° 56' W.
	from this old 1/4 sec. cor. consequently I run

89° 11'

88° 59'

5th Standard Parallel North, through Range 40 W. concluded

88°59'

chains N. 88°56' W. on S. bdy. of sec. 31
along N. slope of range
44.00 Begin gentle ascent along N. slope
64.00 Top of ascent 30 ft. above 1/4 cor. descend over rolling ground
74.50 Bottom descent in ravine or pass, neck of Valley, course
N. 60° E., S. 60° W. ascend over rolling ground
76.00 Top of ascent 30 ft. above pass, thence along S.E. slope
foot hills ascending over rolling ground
82.23 The old cor. of T. 21 N., Rs. 40 and 41 W.
Land rolling
Soil, sandy 3rd rate
Sand and bunch grass

In made a new cor see pg 2

July 30 - 1895

True Line E. 3 miles of R 41 W.

5th Standard Parallel North, through Range 41 W.

chains N. 89°55' W. on S. bdy. of sec. 36
Ascend very abruptly along S.E. slope of range
16.00 Top of ascent 150 ft. above Valley, on range course N.W.
and S.E. thence over broken ground along top of
range
26.00 Descend along N. slope
40.00 Deposit a charred stake 12 ins. in the ground for Standard
1/4 sec. cor. dug pits 18x18x12 ins. E. and W.
of cor. 4 ft. dist. and raised a mound of earth
3 1/2 ft. base 1 1/2 ft. high over deposit
On E. pit drove an Oak stake 2 ft. long 2 ins. sq.
12 ins. in the ground, marked
S.C. 1/4 S. on N. face
49.00 Foot of descent, enter rolling land course N. and S.
62.00 Begin gentle ascent over rolling foot hills along N.
slope of range
80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake
24 ins. in the ground, for Standard cor. of secs. 35 and
36 marked
S.C. T. 21 N., R. 41 W. on N.
S. 36 on E. and
S. 35 on W. faces, with 1 groove on E. and 5 grooves on W. faces
dug pits 24x18x12 ins. crosswise on each line E. and W.
3 ft. and N. of post 7 ft. dist. and raised a mound of
earth 4 ft. base 2 ft. high N. of cor.

5th Standard Parallel North, through Range 41 W. continued

chains Land broken and rolling
Soil, sandy 3rd rate
Sand and bunch grass

N. 89°55' W. on S. bdy. of sec. 35
Ascend slightly over rolling ground along N. slope
of range
40.00 Deposit a charred stake 12 ins. in the ground for
Standard 1/4 sec. cor. dug pits 18x18x12 ins. E. and
W. of cor. 4 ft. dist. and raised a mound of earth
3 1/2 ft. base 1 1/2 ft. high over deposit.
On E. pit drove an Oak Stake 2 ft. long 2 ins. sq.
12 ins. in the ground, marked
S.C. 1/4 S. on N. face
66.50 Top of ascent 40 ft. above Valley, descend over rolling ground
79.00 Bottom descent in neck of narrow Valley course
N.E. and S.W. ascend gently
80.00 Set an Oak post 3 ft. long 4 ins. sq. with charred stake
24 ins. in the ground for Standard cor. of secs. 34 and
35 marked
S.C. T. 21 N., R. 41 W. on N.
S. 35 on E. and
S. 34 on W. faces with 2 grooves on E. and 4 grooves on W
faces. dug pits 24x18x12 ins. crosswise on each line
E. and W. 3 feet and N. of post 7 ft. dist. and raised
a mound of earth 4 ft. base 2 ft. high N. of cor.
Land, rolling
Soil, sandy 3rd rate
Sand-grass

N. 89°55' W. on S. bdy. of sec. 34
Ascend very abruptly along E. slope of range
3.70 Top of ascent 100 ft. above Valley on Range course N. 20° E., S. 20° W
thence over broken ground along top of range
14.00 Begin gradual descent along W. slope
40.00 Deposit a charred stake 12 ins. in the ground
for Standard 1/4 sec. cor. dug pits 18x18x12 ins. E.
and W. of cor. 4 ft. dist. and raised a mound of
earth 3 1/2 ft. base 1 1/2 ft. high over deposit
On E. pit drove an Oak Stake 2 ft. long 2 ins.

chains	
	12 ins. in the ground, marked
	S.C. 1/4 S. on W. face
44.00	Enter basin like Valley, course N. and S.
80.00	Set an Oak post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Standard cor. of secs. 33 and 34 marked
	S.C. T. 21 N., R. 41 W. on N.
	S. 34 on E. and
	S. 33 on W. faces, with 3 grooves on E. and W. faces dug pits 24x18x12 ins crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.
	The old cor. of secs. 33 and 34 mound and pits with stake in mound, bears N. 89°55' W. 1.60 chs. where I deposit a charred stake 24 ins. in the ground and set the old stake in the cor. point. dug pits 24x18x12 ins. crosswise on each line E. and W. 3 ft. and N. of post 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of cor.

Great Cor

Sand, broken and rolling
Soil, sandy 3rd rate
Sand and bunch grass

July 20 – 1895

General Description

This line runs over a series of sand hills or ranges the general course of which is N.E. and S.W. with narrow valleys between the ranges, these valleys are mostly dry, and produce a fine sand grass, in Ranges 36 and 37 W. the Valleys are subject to overflow, thereby causing a good growth of hay. There is no timber of any description on any part of the line. and the grass mentioned in notes as Bunch and Sand grass, is a grass peculiar to this region. The bunch grass grows in bunches on the slopes and hills, and is a very nutritious grass. The sand grass grows in the Valleys, and is also a very strong grass. The soil is unfit for cultivation, but very good for grazing purposes. No natural water on any part of the line, except in Sec. 36 T. 21 R. 35 W. where "Cody Lake" is located, being a lake of about

40 acres, the head of the Dismal River and the location of the "Buffalo Bill" Ranch of "Early days"

Willard W. Alt
U.S. ~~Deputy~~ Surveyor.

List of Names.

A list of the names of the individuals employed by .....

....., 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 .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Final Oath of Assistants.

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are 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 .....

Subscribed and sworn to before me this .....
day of ....., 18 .....

SEAL

.....

.....

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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 ....., bearing date of the .....day of ....., 18 , 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 ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....

.....

.....

.....

.....Meridian, in the....., as 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 surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for..... and in the specific manner described in the field notes, and that the foregoing are the 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 ....., 18 .

SEAL

.....

.....

Approval.

Office of the ~~U. S. Surveyor General,~~ Commissioner of the General Land Office

Washington D.C. April 30, 1897.

The foregoing field notes of the resurvey of the 5th Standard parallel north through ranges 33, 34, 35, 36, 37, 38, 39, 40 and 41 West of the 6th principal Meridian State of Nebraska

.....

.....executed by Willard W. Alt U S Surveyor

under his Contract No....., dated December 26, 1896, having been critically examined, the necessary corrections and explanations made, the said field notes, and the resurveys they describe, are hereby approved.

Binger Hermann

~~U. S. Surveyor General.~~ Commissioner and ex officio Surveyor General for Nebraska

I certify that the foregoing transcript of the field notes of the above-described resurvey in the 5th Standard Parallel North, has been correctly copied from the original notes on file in this office.

Binger Hermann

~~U. S. Surveyor General.~~ Commissioner and ex officio Surveyor General for Nebraska

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General Land Office • Original Field Notes

Book Number

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W.W. Alt - 5th Standard Parallel through T 33 - 41 N

The images in this file are microfilm images of the notes of W.W. Alt resurveys of portions of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The W.W. Alt resurveys began in the mid 1890's and were completed in the early 1900's.