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FIELD BOOK

360

KEUFFEL & ESSER CO.
 4356 **DRAWING MATERIALS** 6420
 AND 4000
SURVEYING INSTRUMENTS 117.80
 282.20 **NEW YORK.** 18520
 91.10 **CHICAGO.** **SAN FRANCISCO.** 3800
 17520 **ST. LOUIS.**

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
 FOR SINGLE TRACK EXCAVATION.

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	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

For Keith's Railroad Curve Tables see end of book.

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Quinn Survey

142-31 Lf. V @ 3 = 1/4 bet 22 & 27

US notes say Birch 4 N 11° W 30 =

WP 18 S 57° E 11 =

at 22-23-26-27

US notes say WP 10 N 19° E 94 = 62.04

WP 20 N 12° W 30 = 19.80

WP 20 S 36° W 10 = 6.60

WP 18 S 30° E 15 = 9.90

We find all four trees plainly marked from which we set a stake for the line corner.

We find stump of SW tree in sec 27 standing plainly marked and we find the body of the SE tree in sec 26 well marked but down and out by the roots.

Trees in sec 23 and 22 are down and turned out by the roots but well marked.

Apr 11-1907

I find the stump of the old birch bearing tree at the 1/4 cor bet sec 22 & 27 - 142-31 which checks out with the WP stump of the other bearing tree when chained from the face of the figure on each stump instead of the heart of the stump and as the WP stump is slender bottled and widens out near the base where the figures are it changes my first stake to a point about 18 inches further SW. at which point I set a good stake for the line 1/4 corner. This would change the lat stakes a few inches but am not granted the time to make the change as landowner does not think it necessary. John W. Cus.

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Copies of old Volo Books

142-31

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Walker Whim April 8-07
 Sec 22-142-31 Left Pine River Whim
 @ 3.36 PM train as Walker to plat "Quam's
 Addition to Walker" Working for Martin J
 Quam over night Hotel Chase

April 9-07 am. Quam took me to $\frac{1}{4}$ port on
 South side of Sec 22 and then Peter Troseth
 and I Chained East $\frac{1}{2}$ mile rough ch
 and found the Bearing true to the SE
 Corner of Sec 22. See page 2

PM. Swore in Peter Troseth as chainman
 Reg @ $\frac{1}{4}$ port on So side 22 Established the $\frac{1}{4}$
 port as follows: BIRCH 11130-WP18557E11
 " found one 18 inch white Pine stump marked
 " 148. BT" I set a stake so that the heart
 of this stump stands S 57° E 11, like
 The 57° is taken from the true meridian,
 which I presume to run on 90 magnetic
 Variation.

There is another oak stake which some
 one has set, about 2 feet NW of my
 stake. The Birch B.T. called for in
 the Govt Volo is apparently gone

We run N $12^{\circ} 35'$ on following an old
 line of Hub's and a fence. (Jim
 Middleton probably run this)

@ 276.2 ft Hub 721.3. Hub. 1306.9 Hub
 1665. Cen of wagon road 1953.3 Hub
 2011.3 Hub Oak stake previously set
 for N.E. Corner of Govt Lot No 5,
 stands South 11 foot Quil for night

April 10-07. Correcting line just run

276.2 goes South. 11. 721.3 goes S. .36 ft
 1306.9 " " .65 1953.3 " " .97
 2011.3 " " 1.00 (1 foot)

Reg @ Oak stake 2011.3 feet North of $\frac{1}{4}$
 port on So side of 22, we run South and
 @ 150 feet set SW cor of Village Lot
 No 1 - 150 ft. Continuing South on
 line line @ 150 ft (= 300) set SW cor Bk 1.
 Thence 60 feet and set NW cor Bk 2 = 360
 " 100 " " " " 2nd 2 = 460
 " 150 " " " " 3 = 560
 " 100 " " " "

Then continue setting various stakes for
 proposed townsite plat

John W. Cus

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Bungo 137-31. June 29-07

O. S. Bogquest and Anton Bogquest
Surveying for Bogquest & OlsonBeg @ Cor to Sec 25, 26, 35
36. 137-31. Run N 9° 30' W @ 9' Hub

@ 871.4 Hub 1320 Hub @ 9' Hub

2392 Hub 9' Hub @ 2640 Hub Temp 1/4

3960 Hub 5280 Stake 5350 Hub

True corner stands N 84° 15' E 36. feet

5353.6 ft is true length of line
correcting back:-

3960 goes N - 2640 goes North

35 feet and N 84° 15' E 18 feet

Quit for night

June 30-1907

Bogquest & Son, all Landslöm
and Ole Olson. Beg @ New Stone1/4 post on E side of Sec 26-
137-31 we run West on 9° 40' W. Hub...

@ 1080 Hub, @ 1320 Stake, @ 1899 Hub

@ --- Hub. - @ 2640 Hub True center of Sec
26. Previously set by me being oakStake, stands West 16° 12' N 25.9
feet. Correcting Back:

Hub 1899 goes West 16° 12' N 18.6 feet

1320 goes W 16° 12' N 12.95 ft

919. W 16° 12' N 9.02 ft

Cement foundation of Bogquest's House
stands 4.4 feet N of Hub 919, correctedCorrecting up East Boundary of
Sec 26-137-31We set Hub 3960, N 52.5 ft then
N 84° 15' E 27 feet

1320 goes N 17.5 ft then N 84° 15' E

9.6 feet. 871.4 goes N 11.55 ft and
N 84° 15' E 5.94 ft

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John W. Curo

(5)

Cass Lake Minn May 1st 1907

I am working for Cass
Lake Village on Side-walk grades

Wed May 1st 07 Left Pine River @ 3.30 P.M.
Supper at Walker with Ed Scribner, got my
flag poles at Court House Paid Bob
Leary \$5.50 Taxes and went to Cass Lake
in time to hear the last end of a Council
meeting. Stayed at Pine Hotel / Geo Hanson Prop.

May 2nd 07

Looked over plats of street-grades with
Mr. Hottel who gave me the original pro-
files. I went to Bernice in P.M. and got
a level rod of Elmer & back to Cass Lake

May 3rd 07

P.M. Mr. Traylor succeeded in getting me a
roadman and we leveled two blocks up
and down 3rd ave. Quit for night
1/2 day for Mr. -

May 4th 07 Mr. - and I worked all day
looking up monuments

May 5th 07 Sunday Laid up

May 6th 07 Mr. - and I worked
worked in a.m. leaving up side walk
I and he laid off in P.M. I lost
1/2 day

May 7th 07 I am working for the old
Fench / Shoe-maker M. R. P. Gamache
Left Town @ 7.30 drove to NE cor Sec
8-145-31 and run rock line (about
1320 feet) west to the 1/4 post I set
last summer
Got a piece of 2 inch pipe, 3 feet long
and drove it down at NE cor 7d
then back to town for dinner

(6)

Cass Lake - May 7-07 Lydeck Townsite

Began work on Lydeck Townsite at 1:30 P.M. Walter Coats on & ch. Peg @ Iron Mon set for $\frac{1}{4}$ port on E side of Sec 16-145-31 we then went on 8 $\frac{1}{2}$ miles following an old transit line cut 3 years ago by James L. Middleton

@ 766.4 Hub 1320 Hat. Quit for night Coats and I got in $\frac{1}{2}$ day for Lydeck Townsite Co and this is our first day for them

I am sick. got a letter from Lew

May 8-07 A. L. Stanley, Walter Coats, and I continue west on Middleton's line @ 1760. set cross old wagon road 1765.4 Hat 2625. cross main wagon road 2640 Hat $\frac{1}{4}$ cen of 16 2663 Tack in stump 34 15.6 Hat 3631 Cen of R.R. track 3960 Hat 4514.3 Hat 4840.4 Tack in stump. 5276.5 Tack corner stands south 126 feet @ 5280 true corner stands S $2^{\circ} 20' E$ 119.8 feet

Correcting Back
2640 goes S $2^{\circ} 20' E$ 59.9 ft
1320 " S $2^{\circ} 20' E$ 29.95 feet
766.4 " S $2^{\circ} 20' E$ 17.39

Quit for night got in full day

May 9-07 Same crew: set transit on Iron Mon @ $\frac{1}{4}$ port on E side of 16. after getting R.R. Co to move Coats. Took reading on Iron Mon half mile away on NE cor Sec 16-145-31. The IRON Mon set on N side of R.R. ch. for line.

With transit set on $\frac{1}{4}$ port on E. side of 16. I take angles of two lines as follows:
Verner @ 0.0, back sight on line EX W line Loose Clamp line telescope on line N & S line of Iron Monument Verner reads $90^{\circ} 16'$

Measured 21.5 feet N and set ally stake
125 " N

May 10-07 Coats, Stanley and I worked all day for Lydeck Townsite Co

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Cass Lake Minn May 11-1907

Stanley, Coats and I worked $\frac{1}{2}$ day in A.M. for L.T. Co Laid off in P.M. for storm
Stanley & Coats worked $\frac{1}{2}$ hour in P.M. making stakes

May 12-07 Sunday

May 13-07 Laid off on account of snow all day

May 14-07 caught morning train to Pine River snowed a foot

May 15-07 cut wood, Laid home

May 16-07 cut wood in a.m. Paired 7 P Ellen & 800 caught P.M. train for Cass Lake

May 17-07 Stanley, Coats and I worked all day staking Lydbeck Township

May 18-07

All Stanley, Coats & I worked all day staking Lydbeck Township

May 19-07 Stanley, Coats and I worked all day and finished survey.

We set 4. foot Pump pipe 2 in diam at SW cor of addition about NE cor x NW cor

From the NW corner, North to cen of main line of G.N.R.R. is 345.5 ft

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145-28

Bena Minn May 21-07

Left Cass Lake @ 125 AM. Arrived 2 AM.
 Slept till 7 AM. Middleton got Bob-
 Link and Chas Peake as ax and
 chainmen and we started in at Iron
 Pin at NE cor Sec 34-145-28. ^{2627.5 ft}
 Run south on 8°00' in Swamp @ 334.7 ^{9.25}
 Hub on ridge @ 1320 $\frac{1}{16}$ Hub in Swamp
 @ 1483.2 Tack in 30 inch WP sleep
 May Van 8°55' (L.S. @ 1353)
 2125.7 Hub. 2420 Edge of bog 2540
 Hub in bog True cor Islands N 88°12' E
 82.4 feet Total length of line is
 2537.5 ft

May 22-07. The $\frac{1}{4}$ post bet Secs 34 &
 35 cannot be set from the Bearing
 line but I have set it by intersecting
 of the lines from the two BTS. ^{to}
 given in the foot field notes with the
 result that the old Bts read on follow:-
 8°7' N 12° W 70.8 ft. ^{Tell Middleton 4 more}
 " 6° N 15° E 62.6 "

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 Beg $\frac{1}{4}$ post just set in Slew
 on E. side 34 Run W 9°10' 00"
 @ 334 Hub on little 20 foot ridge
 in Swamp @ 1220 leave Slew
 1320 Hub Temp $\frac{1}{16}$ 1620 Hub 1700
 enter Slew. Bob Link and Peake worked
 all day
 2640 Hub. Cor of Sec. $\frac{1}{4}$ in Swamp
 2700 leave Swamp 2756. Hub
 2848.9 Hub on hill. 2925. Cross
 main flag road 2975. enter Swamp
 3333. leave Swamp 3376.2 Hub on
 hill on 9°25' 3465. enter Swamp
 3960 Temp $\frac{1}{16}$ Hub in Swamp
 9 mit. for night

May 23-07 Sec 34-145-28 Bob Link and
 Peake and Chas continue West 9°25'
 @ 5110 leave Swamp. 5204. Hub on
 ridge 5280 Hub True $\frac{1}{4}$ Islands Fork
 8°10' E. 72. feet Total length 5270 ft
 In establishing the $\frac{1}{4}$ post bet
 33 and 34 the BTS. do not fit the
 field notes. The WP called for in
 notes is a W.P. 16, N 18° W 70. ^{then}
 Pap 8° 32' E 44.9 ft May Van @ 8°40'
 @ which point I set my new stake
 I simply reverse course and
 set stake at intersection of the
 lines Quit for dinner.

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145-28 304

Bona Whim

May 23-07 PM. Continued.

Reg @ $\frac{1}{2}$ post on N side of 34-145-28
 I took the course to the New Blazing Tiles
 which were made by Campbell @ 10° Mag
 Vor or meridian. 9P 18 S $74^{\circ}15'W$ 30.4 ft
 9P 6 N $61^{\circ}3'E$ 8.2 feet
 Tunnel S $10^{\circ}V$ @ 472 Hub. 510 enter swp
 Vor $10^{\circ}15'$ 949.7 Hub on 50 foot pep ridge
 1320 Hub Temp $1/16$ in Slew. 1640 LV Slew
 cross slope road $V10^{\circ}$ 1733.2 Hub pep
 ridge. 1760 Ent swp 1970 cross 20 foot
 pep ridge 2513 cross our E & W Pulini
 many 2621 feet west of $\frac{1}{2}$ post on E side of
 Sec. 34. Quit for night

May 24-07 Continue South on cen line of

34-145-28 Bob-link & Peake
 @ 2600 LV swp 2640 Hub Temp Cen NTS.
 2843.7 Hub on little hill 3342.7 Hub
 3606.2 Hub Mag Vor 10° 3656 Enter swp
 3960 Stake in swp. Quit for dinner
 Peake quit at noon but got a man in
 his place Temp PM.

Bob-link & Ka-we-ta-wa-we-dunk
 an & ch. @ 4365 leave Swamp
 4429.8 Hub 4113.4 Hub 4725
 Ent swp. 5280 Hub in swp. No post
 could be found so we came back
 and quit for night

May 25-07 34-145-28. Reg @ SW cor 34

we found both BTS in good condition
 and by delving the stake of measurement
 from center of the lines they would
 check out fine for course with meridian
 @ 7° Vor Run E $9^{\circ}15'$ Vor

@ 197. Cen of slope road 700 ent. swp
 917.2 took in Tam root rained and
 we quit at noon 1800.50
 Peake, Bob-link & I worked $\frac{1}{2}$ day.

May 26-07 Sunday. Continue East $9^{\circ}15'$

Peake and Bob-link slide on the job
 1320 Stake in Swamp 1821.1 Hub
 in swp. 2264.5 Hub 2640 Hub in swp
 3960 Stake in swp 4100. LV swp 4116
 Hub 4681.1 Hub on hill 5051 Hub
 5280 Hub in swp. True cor lands R.
 22046' 8.9 feet @ 9° Vor Bark 9N28'27'
 E28 lbs B. Ash 6 N58°44'W 15 lbs to cen
 of trees. True length is 8.5 ft too long
 and 3.4 ft to the right. Peake & B.L.
 worked all day.

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JVT

Bena Minn Sec 34-145-28

May 27-07 Peake-Roblink & I correcting

up all the lines in 34-145-28.
 at Hab 2640 on S side 34 true on stands
 E 22° 46' S 4.5 ft I set good 4 in Tan Port
 5 ft long with BTS viz: Meridian @ 9° W
 Tan 4 N 28° 15' E 53 feet

Lead Tan 3 N 58° 4' W 53 1/2 feet

Going South on Cen line of 34:-

at stake 5280 newly establish 1/4 post stands
 N 67° 5' W 113 1/2 feet. Following Cen line
 back North we set 2640, N 67° 5' W

56.75 ft on Tan N x S Centric then in
 order to get line N x S Cen line of 34
 145-28 I set Hab N° 28 43.7 N 67° 15' W 61.13 ft

Total length of N x S Cen line of 34 is
 5236 ft 3 1/2 being 2688.5 + N 1/2 being
 2547.5 ft

Both go on Cen line of 34
 @ 5280 My preliminary is 105.14 ft too
 for East Correcting up EXW Cen:-

of 34-145-28:-

at 5280 true 1/4 stands S 8° 10' E 72

ft. coming back to 2640. on EXW Cen

line of 34 we set a Hab S 8° 10' E

36 ft Tan in order to get true EXW

line at 2848.9 we go S 8° 10' E 38.85

ft Total length of EXW Cen line of 34 is

5269.7 ft E 1/2 being 2671.4 ft and

W 1/2 being 2598.3 ft

My preliminary on EXW Centric line:-

At West side of Sec 34, is 71.2 ft

for North

+ Setting transit on 2640 going west on

EXW Cen line of 34, true Cen of

Sec stands to 41° W 48.4 ft 1320

goes S 41° W 24 feet

Setting transit on 2640 going so on Cen

line of 34-145-28 true Cen stand N 28° 48'

W 105.7 ft 1320 goes N 28° 48' W 52.85

ft 48° 50' or meridian

I set B.T.S. for Cen of 34 as follows:-

N 10° N 55° 20' W 49.2 ft

Pap 35 57° 45' E 12.4 ft

At 1/16 to 1/4 post on N side of 34

BTS viz: Pap 7 N 68° 50' E 95.4 ft V 90

Br 8 S 76° 12' E 110.1 V 90

@ 1/16 N of 1/4 on E side of 34 V 90 BTS viz

Pap 8 N 43° 45' E 5.6 ft

Br 4 N 73° 10' W 8.3 ft. At 1270.5 of NE Cen

34 true Cen goes N 88° 12' E 41.2 V 90 BTS viz

Tan 10 N 14° 41' E 18.9 ft Tan 10 N 53° 40' W

15.5 ft.

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John W. Curo

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Cass Lake Minn May 28-07

I got in from Berea @ 2 a.m. and after going to the fire slept till 6.30 and then got a 90 Stanley and we worked all day for the village of Cass Lake checking up the Bench Mark.

May 29-07 Stanley & I worked all day for Cass Lake Village and set grade stakes. Johnson's corner is 25.30 Bank cor is 25.30 Telford's cor is 25.32 but will have to go to 25.40 the opposite corner will have to go to 25.40 to fit old profile

Van Pelt Addition

May 30-07 a 90 Stanley, John Watson & I began work on Van Pelt's addition to Cass Lake.

Reg @ iron monument at corner of Sec 9
 9-10-15-16 145-31 we ran North
 on 8° 10' 00" @ 882.4 ft on hill. 1320
 2640 34 80.7 ft on side hill
 3960 set corner Huber
 5280 Hub True corner stands N 72° 8'
 W 21.4 ft Set New BTS V tip
 GP 55 41° 20' E 39.6 ft
 " 55 63° 15' W 37.4" 10 feet of tier
 with meridian @ 8° 00'
 Quit for night.

May 31-07 rained in the morning and I did not work in a.m. Stanley & Watson worked 4 hours in a.m. making stakes and we all worked in P.M. on survey
 we corrected up East boundary of 16 and drove 1/4 post in line and measured it again before setting 1/16 and 1/4 post

Reg @ SW cor of Sec 9 I set transit on a straight line bet the SW & SE cor of 9 and chained East 2117.4 ft and set hub on hill quit for night

Cross Lake Minn June 1-07

Van Pelt's Addition

Matson and Stanley. Continuing East on South line of Sec 9. -145-31

@ 2640 Hub 3960 Hub 5280 Hub

True cor stands East 20 feet

Total length of South line of Sec 9 is 5300 feet or 20 feet over length

correcting back we found the old iron $\frac{1}{4}$ post set by Confield at is 2643.7 feet E of the S.W. cor and 2656.9 west of the S.E. cor and is 1.30 ft N of a straight line between the corners

One old B.T. stump stands S 17° E 35.64 ft or 54. links to the "B.T." on stump or 361 to head of stump Mer @ 8° on

Correcting East -
Hub 3960 goes East 11.50 feet and North 0.65 feet This is on a straight line between the S.E. cor and the $\frac{1}{4}$ post on S. side of Sec 9-145-31

Each forty is 1328.5 ft
drew 4 foot pipe 2 inch thick with iron cap @ $\frac{1}{16}$ Then seting Transit on iron cap @ S.E. cor of Sec 9 I took the angle of the East and South boundary of Sec 9. Angle is $90^{\circ} 43'$

Angle of $0^{\circ} 43'$ in 33 feet is 0.42 ft so that

Sunday June 2nd 07 laid off

June 3-07 Matson & Stanley worked on South side of Van Pelt's addition to Cross Lake on S.E. SE $\frac{1}{4}$ Sec 9. 145-31. @ 1131. W of S.E. cor of 9 I set 2 in pump pipe 4 feet long, capped. to mark the S.W. corner of the platted portion This pipe is exactly on the Sec line and is 1131 ft West of Sec cor and 197.5 ft East of $\frac{1}{16}$ post which is also an iron monument

Reg @ S.E. cor of 9 we run the N Parallel to the East Boundary

June 4 and 5-07 Stanley - Matson & I worked on Van Pelt's addition

June 8-07 I went home to Pine River

Jenkins June 9-07 Sunday

Over night at Jenkins. Worked with Wesley and came home to Pine River

Bruno June 11-07

137-31 Left Pine River @ 5 P.M. with all H. Sandston and drove to his place (I worked all day at Jenkins and came up on P.M. train)

June 12-07 O.P. Olson. O.G. Boquet, O.H. Sandston and Oscar Sandston.

Reg @ point on N Body of Sec 26, East of $\frac{1}{4}$ Port - we run west $108^{\circ}30'$
 @ 0.0. Hub @ 586.3 Hub -- Hub -- @ 3368.1 stone in cen of road at corner Secs 22-23-26-27-137-31. Going back to Hub 0.0. we run East and at 1980 = 5348.1 True corner Slants N $12^{\circ}5'E$ 14.9 feet True length is 5351.3 feet Coming back to Hub 586.3 we measure $107^{\circ}8'$ west and set Hub Then run N $12^{\circ}5'E$ 7.45 ft and set oak stake marked " $\frac{1}{4}$ Sec. This establishes the true $\frac{1}{4}$ corner quit for night

June 13-07 Daniel Crew. Reg @ Newby East established $\frac{1}{4}$ port on so side of Sec 23 we run N $8^{\circ}40'$ @ 7. Hub -- Hub -- Hub -- 1188.8 Hub N side of little hill 1320 square Hub 1375 corner of creek 10 lbs wide -- Hub -- 2640 Hub 31.54.9 Hub. -- Hub. 3960 Hub -- Hub @ 5280 Hub Temp $\frac{1}{4}$ on so side of $1\frac{1}{4}$. Find no B.T.S. Got Jake Hoffman went west $1\frac{1}{2}$ miles before finding any corner then only a stake probably set by Canfield but no B.T.S. Quit for night.

June 14-07 Ora Welker. also Sandston Boquet & Olson Reg @ New $\frac{1}{4}$ port on N side 26-137-31 we establish the following B.T.S. @ $8^{\circ}40'$ old W.P. slab 16 N $66^{\circ}38'$ W 68 feet Pop slab 8 N $55^{\circ}4'E$ 44.2 feet Then run 2 on $8^{\circ}40'$ var @ 539.6 ft Hub var 9 @ 1024 Hub var 9. 1320 square Hub 1644 Hub var $8^{\circ}40'$ 2351.1 Hub var $8^{\circ}40'$ 2640. Hub Cen of 26 @ $8^{\circ}40'$ old road 2967.3 Hub var $8^{\circ}45'$ 3475.1 Hub. 3692.4 Hub var 90. 3960 Hub
 Over

Bungo 137-31. June 14-07 continued

South on cen line of Sec 26-137-31. Van 8°40'
@ 4316.3 Hub Van 9. 14781.5 Hub. V 8°55'
5280 Hub No BTS. went to SE cor of Sec 26-
137-31 where we found NP and WP BTS. which
did not check out with the field notes
or to corner but as put in the Sec cor
by measurements from Heart of Hills
Old BTS stands from newly placed post
or follow NP 12 N 20 W 44 lbs = 29.04 ft
WP 1 N 63°45' E 105 lbs = 69.30 feet These
corner are read from needle or are
magnetic and are taken in hole.
Quit for night

June 15-07 Wilkes, Sandston, Bogert
Alson. Saturday rained till 10 AM.
@ 10:30 am set up transit on SE cor
Sec 26-137-31 Took a line west on 8°40' W
but before we start needle settled on
8°30' ran west. @ 175' end in meadow V 8°50'
1355.2 Hub W of meadow. 1967.3 Hub V 8°45'
@ 2640 Hub 2703.6 Hub V 8°45' - 3133.3 Hub
V 8°45' 3865.1 Hub 9°0' - 4275.2 Hub
V 8°45' 4868.7 Hub V 9° 5280 Hub. 5301.8
true on stands N 4. feet
at corner 26-27-34-35-137-31 there
are 3. posts set. After setting my line on
the bearing tree stand viz: V 9°
E on 8 N 39°15' E 29.22. ft
Toon 20 S 34°25' E 26.40 ft.
Toon 14 S 25°45' W 44.15 feet

June 16-07 Sunday. Ole Sandston and I
corrected up to line of Sec 26-137-31
We set Hub No 2640, 10.9 feet west + 2,
feet N. Making 1/4 post in its true loc-
ation with BTS. viz: Menden @ 9100
NP 12 N 41 E 74.1 feet
NP slump 6. N 12°30' W 20.7 feet to cor of
line + slump. Tree marked "Curo"
Back BTS. Marked "New BTS"

Correcting up N & S cen line of 26-
137-31 set up transit at Hub No.
5280. With Verner clamped on 0.0.
Take back sight on line just run, line
1/4 post stands S. (or Left) 48°7' E 105.4
ft. Coming back to Hub 2640 Trans
can go S 48°7' E 52.7 feet. @ Hub
1644. go S 48°7' E 32.82 ft where
we marked a stake "Road"

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Bungo 137-31 June 16-07 continued.

1024 we set $48^{\circ}7'E$ 20.44 feet 539.6
 went $348^{\circ}7'E$ 10.77 ft to stake marked "Road"
 Total length 5350. feet

June 17-07 came home to Pine River
 on stage arrived Pine River @ 10-10 AM

Sunny continued July 23-07.

July 23-07 Left Pine River in PM. and staid
 over night at Ole Sandstroms

July 24-07 Ole Sandstrom - W H Wore and
 Bennie Wore Beg @ cor East

16-17-20-21-137-31 Two 1375. V $\frac{1}{2}$

N P 14 N $2^{\circ}W$ 530 lks

N P 18 N $78^{\circ}E$ 480 "

Run E $10^{\circ}W$ @ 1320 stake 2040 stake
 3960 stake 5230.5 ft Hub for temp sec cor
 Quit for night

July 25-07 Sandstrom & Bennie Wore
 Beg @ Hub 5230.5 we offset N about
 50 feet @ $9^{\circ}30'00''$ and set Hub marked
 5230.5 Marked = O.P. and run E on $9^{\circ}00''$
 Confelds cor stands about 73 feet W
 of Hub N 5230.5 = O.P.

Continue East $9^{\circ}00''$ @ 630 enter slew 1170
 leave slew 2647.59 set stake temp $\frac{1}{4}$ in
 road @ 3971.38 Hub 5295.18 temp
 sec corner. Beg @ 5295.18 continue East
 @ 2662.77 Hub temp $\frac{1}{4}$.

Going to Hoffmann's corner @ cor of sec
 22-23-26-27-137-31 Run N $8^{\circ}15'00''$
 compass line @ 5280 set stake

July 26-07. Bennie Wore, Sandstrom, axle
 Olson. continued N $9^{\circ}30'00''$
 1320 stake 2640 stake. 3960 stake. 5280 stake
 no 1375. Continue N on Mag V of 8'52'
 @ 1320 stake, 2640 stake true $\frac{1}{4}$ post
 stands N 9° feet and West 34.4 ft
 Quit for night

July 27-07 Same crew. Beg @ Hub 2662.77
 being temp $\frac{1}{4}$ post on 20 lks sec 14-137-31
 continue East Transit line on about
 $8^{\circ}50'00''$ @ 5325.54 stake. Temp sec cor
 true cor stands 163 feet East and 46 ft N.
 correcting up.

Bungo July 27-07 Continued 137-31

Correcting 20 Bdry See 14. Hat 5230.5
 goes East --- Hat 2647.59 = 7878.09
 = $\frac{1}{4}$ at Wilkins. Hat 5295.18 feet =
 10525.68 = See cor and goes East 107.12
 feet + N 36 feet 2662.77 = 13188.45
 = $\frac{1}{4}$ New Bridge and goes East 135.62 ft
 5325.54 = 15851.22 and goes E 163 ft
 and N 46 ft. I set long 2 foot plate
 on and for cor of See 14-15-22-23
 -137-31. 137S Vis. Meridian @ 900m
 J.P. 4. N 7 E 25.8 feet to cor of line
 " 3 N 33° 30' W 18.7 ft

at this corner preliminary line is 26.1
 feet to true corner.

The SW cor of Sec 14-137-31 is 26.1 feet N of
 Preliminary line and SE cor of Sec 14-
 is 46. feet N of Preliminary line

The $\frac{1}{4}$ post on S side of 14 would
 be 36.05 N of preliminary

Then going Hat No 5280 set
 June 13-07 true stone $\frac{1}{4}$ post on S
 side See 14 stands North 79° 42' E
 24.4 feet

Correcting south on N & S end line
 of Sec 23-137-31. Hat 3960 goes N 79° 42'
 E 18.3 feet 3154.9 goes N 79° 42' E ---

Hat 2640 goes N 79° 42' E 12.2 feet

" 1320 " " 79° 42' E 6.1 "

" 1188.8 " " " " 5.49 "

(17)

Hackerack Mine July 5-07 326

Left Pine River at 3.36 P.M. train came
to HackerackJuly 6-07 Walked to Ed O'Donnells &
got dinner then back to Hackerack
Then Charles Loran took me to his
place on Sec 30-140-29 where we arrived
at dark over night at Loran

Sunday July 7-07

Ed O'Donnell, Billy Donaldson
Honberg and I began survey of
Hackerack-Woman Lake roadBeg @ $1/4$ port on So side Sec
19-140-29 Set $1/4$ port from old N.P.
B.T. 9. (down) stands S 50° E 50 lbs
Meridian @ $8^{\circ}45'$ No other trees

John A. Sherr port stands NE about 4 ft

Run W $8^{\circ}45'00''$ Run about half a mile
and found corner port marked up by
old Co Surveyor who claims to have set
it from old B.T.S. but by taking the
same B.T.S. I move the stake SW about

10 feet. old B.T.S. stand Vig.

Pick 7 N 68° E 34 lbs Pick 8 N 52° W 60 lbs" 6 S 60° W 30 (not 80) Spr 10 E 14° S about 11 lbsThere is evidence of another 10 inch spunk
that stood S 14° E 21 lbs. Taking all
in all I consider the corner to be correct
or per above B.T.S. and set stakes accord-
ingly.Taking the new B.T.S. which seem to have
been set by the former Co Surveyor they are
or follow:-N 10° N 46° W 47.4 ftOak 8 S $37^{\circ}50'$ E 34.6 ft all above

corner @ 9000

Run N $9^{\circ}00'$ @ 628. Hat 1225 ft

cross old road 1320 ft Hat

at Hat 2640 quit for night. True

corner stands N 67° E 19.5 ft Set

from one B.T.

As per, S 56° E 12, others gone.1320 goes N 67° E 9.7 ft

Honberg got in one day

Donaldson one day, O'Donnell a.m. $1/2$ dayCharles Loran worked P.M. $1/2$ day

Quit for night

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(18)

Hackensack July 8-07

could get no crew so went to Walker with Ed O'Scornell. Dinner at Hack-Supper and over night at Walker

Tuesday July 9-07 Commissioners met. I left Walker on morning train dinner at Hackensack. Left Hack at 4.30 P.M. Rode out with Frank Leoner on Lorsons about dark

July 10-07 Rained in a.m. but I sent Geo Lorson over to Tussler to tell them to come to work. for which I allowed his father half day in survey. Geo Lorson gets in 1/2 day.

A. Tussler, A. H. Tussler his son on Lorsons at 12-30 or 1 P.M. & we drove out and began work, finishing up West Boundary of Sec 19-140-29

at 2640 ft N of Sec cor. Set Hub. Total distance 2647.7 ft True 1/4 post stands N 67° E 19.5 ft. Total dist 1323.85 ft. Correcting back:-

at 1320 Set square stake N 67 E 9.7 ft and marked it 1/16. Hub 628 goes N 67 E - - - -

July 11-07 Tussler & son & I worked all day cutting line west on 9° on 1/4 of a mile N of South Boundary of Sec 24-140-30

July 12-07 I, Tussler & son worked all day. Billy Donaldson showed us all stumps.

Run E 19° 10' on @ 2640 Hub 2700 enter slew, 3250 leave slew, 3700 Hub 3720 cross old road, 3810 enter slew 3960 Hub in slew 4060 Ls slew 4140, Hub 4375 enter slew 4475 Ls slew 4700 enter slew, 4900, Ls slew 5280 Hub 5310.36 Hub, Sec cor. @ mit for night

Set corner 15 sec. 7-15-22-23 140-30

326

July 13-07

Honberg, Tussler & son & I.
 Looked for BTS @ on Sec 18-14-23-24
 140-30 but could find none
 Continue East on $9^{\circ}10'$ on - Hub -
 @ 5850' elev. Slew. 6000' Lvslew. 6275' elev of
 50 foot dry Slew. 6480' elev. wet Tan Slew
 6500' Lvslew. 6600' Hub Temp 116° . 7920' 114°
 Hub No BTS. Continue East -
 8460' elev. Lake Honberg Swims Lake and
 measure across for two days extra pay.
 Honberg sets stakes and chains No 13
 about 20 ft from E. edge of lake.
 they put the Hub on Sills Hill for line.
 and quit for night

July 14-07 Sunday laid up

July 15-07 Larson, Tussler & son & I
 Beg @ $1/4$ on W side Sec 19-140-
 29. on Hub No 2640' N and continue
 cutting preliminary line North on Range
 line. So on to locate NE corner of
 Sec 24-140-30.

44. ft off at M.C. No 1 2 miles and
 45.3 feet to Range Lake.

Beg @ Stake No 13 set by Honberg
 in E. edge of Webb Lake Slew on
 So side of 18-140-30 continue East
 on $9^{\circ}10'$
 at 10560. set pin @ about 10563. set
 two Hubs then look up preliminary and
 North on $9^{\circ}10'$. Quit for the night

July 16-07 Chas Larson, Martin Hanson,
 Fritz Hanson, son and A. H. Tussler con.
 preliminary line N. on $9^{\circ}10'$ on W side of
 Sec 18-140-29. at lake looked for M.C. No 1.
 of 140-30 and found 1. old Birch B.T.
 from which we set the point for M.C.
 but did not make any new B.T.S.

on set a big stake
 going back to our preliminary
 at line. telescope N 67° E and set
 Hub 19.5 feet away. Then carry
 transit 15 Hubs and set a line East
 $9^{\circ}10'$ and intersected by running a
 line South $9^{\circ}10'$ from M.C. which
 shows our preliminary line 44. feet
 too far West.

140-30

20 Hackensack

coming back to NW Cor See 19-140-30
 we set a Hub 19.5 feet, N 67° E from pre-
 liminary line. Then measured 22.6 ft
 straight East to get in line and then
 back to Hub on E + W line and found
 distance to be 2. miles 45.3 feet

at our lunch in O'Donnell's house then
 coming back to Hub No 66.00. we set
 a Hub at 6624.09 considering the
 whole 10565.28 feet to be 10605.3 ft
 actual length, or 40.02 too long.
 Hub V-6624.09 goes East 25.08 ft
 and N. 7. feet and marked stake "road end"
 and then we run South on $\frac{1}{16}$ line 8' 4 5"
 at 660 stake. 760 top of 30 foot hill. 761. Hub
 @ 960 foot of hill enter slew, 1320 stake
 in slew.

July 17-07. Hanson & son Albert Tuster &
 Chas Larson, continuing South

1350 leave slew foot of hill
 @ 1606. Hub on hill 1650 enter slew.
 1860 leave slew. 1910. enter slew.
 1980 stake in slew. 2800 leave slew
 2323. Hub 2375 enter slew. 2640
 stake in slew. 2700. L. slew. 2904.
 Hub. 3300 stake. 3547. Hub. 3900
 Hub. 3960 Hub. 4620 stake 5280.
 Hub. 5346. O'Donnell's $\frac{1}{16}$ stake
 set on so boundary of 24, sets East
 3. feet. Then Quit for the night

July 18-07 Hanson & son Chas Larson
 Albert Tuster

Reg @ $\frac{1}{4}$ on W side See 24-140-30
 found both B.T.S. Run to 8° 45' on
 @ 1320 Hub 1500 Hub in meadow
 set 180 feet E. 90° to get around
 lake. @ 2295.5 Hub on S.
 side of lake. True Cor stands S 64° E
 25.3. Correcting back set Hub N 4
 1320. to 64° E 12.6 feet

(Note: I have forgotten to say that
 I set a hub 344.5 ft S of the lake so as to
 make the total 2640, before reading the
 angle to true line cor.)

(21)

Hockensack

July 18-07 Continued 140-30 326

Bringing up the $\frac{1}{16}$ line from the East, $\frac{1}{16}$ line just set, stands N. 6.3 ft. Correcting both last lines run, we set one line 2.10 ft East and one line 4.70 ft North and drove stake for center of S.W. $\frac{1}{4}$ of 24-140-30

Bag @ $\frac{1}{16}$ in cen of S.W. $\frac{1}{4}$ 24- we chain along preliminary @ 180 cul. slew @ 360 lead same @ 600 cen of 30 foot slew @ 2124 . Hub for A.P. N.E. road cen. Then E 16 N @ 400 feet cen of 30 foot slew, @ 600 Cen of 50 foot slew @ 740 W. end of slew, @ 806 ft cen of Bridge A.P. 2. Then East 28° North 395 feet @ P. 3. Hub, thence E $15^\circ 16'$ S. 232 feet E $60^\circ 10'$ S. 395 ft to $\frac{1}{16}$ line Then E. on $\frac{1}{16}$ line 352 ft to $\frac{1}{16}$ on R. line Then 1323 ft S. along Range line to cor sec 24-25-19-30.

In running $\frac{1}{2}$ mile W. from $\frac{1}{4}$ port on S. side 19-140-29- to S.W. cor 19, our preliminary line cor stands 3.58 ft. Correcting East. at 540 cen of 100 foot slew @ 660 set stake $3.43.5$ ft for road cen. @ 1320 E set port 29 ft S. for $\frac{1}{16}$ and road cen. in cen of 125 foot slew, @ 1680 cen of 75 foot slew. @ 1980 set stake 14.5 ft S. for cen of road. Quit for night.

July 19-07 Continuing

Hanson & son Larson and Albert Turler, @ 1712 set stake road cen. A.P. Thence $S 41^\circ E$ 270 ft to A.P. Thence East parallel to sec line 270 ft to A.P. Thence N $41^\circ E$ 270 ft to sec line. - Port stands in cen of 75 foot slew on neck of lake that will have to be bridged or calvered. This must be 2012 instead of 1712

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July 19-07 Continued

Then East following line
line 410 ft - to $\frac{1}{4}$ Sec on S. side of sec 19-
140-29.

Reg @ $\frac{1}{4}$ on so side of 19-140-29 run E
8°30' on @ 660 stake @ 1320 stake 1980 stake
enter slew 2180 to slew. 2400 out slew
2650 Sec corner post stands South
28 feet in Big meadow.

Reg @ Cor to Secs 19-20-29-30 - Set
by Canfield we run East on 9°45' on
@ 1810 ft to big bog @ 1290 enter meadow
1320 stake in meadow.
1980 " " " 2050 LV meadow
2330 enter meadow. 2520 LV slew.
2640 set stake NO B.T.S. Continue transit
line East. 9°45' on @ 2790 Cen of 50
ft slew on top of high hill @ 3120 out
swamp. foot of hill. 3300. stake in
slew. 3960 stake. Cen of old road.
@ 4620 stake 5280 True Corner stands
South 60 feet. 31 B.T.S. at Cor.
Quit for night

July 20-07 Fritz Hanson & dad. Albert
Tubler. Chas Larson. Reg @ 416 post
W. of SE Cor 20-140-29. in Canfield main
road we follow. the old road or
fallow with Vermer set at 8° on
a meridian. we run
N 14° W 540 ft. N 18° E 650 ft N 40° E 1225
N 88° E 220. N 41° E 200. N 20° E 100. N 32° E
100. N 40° E 155 ft. N 50° E 385. N 60° E
180. N 50° E 500. N 49° E 200. N 40° E
110. N 7° E 300. Then leave old road
and take Eber Smith's trail. N 7° E still
following old road 90 feet. then N 28° E
following old road 190 feet. N 74° E
New Link. 1545 feet. N 55° 30' E 838.
feet. N 38° E 580 ft to River. N 38° E
275 ft to N. Bank of River. 75 ft of
bog on N. side of River 100 ft of water.
75 ft bog S. side of River.

(23) Hackensack
140-29.

326

July 21-07 Sunday,

Hanson & son. Beg @ M.C. End
see 30-140-29. run N 8° 00' @ 2277 ft
line cor see 19-20-29. 30 stands
west 39 feet. Correcting from SE
Cor 19-140-29. state 1980 goes 9 21 ft
this will throw the road almost South of
the bog. -- little blue Fort of us
1320 goes 9 14 ft. 660 9 7 ft

Tusler & son arrive

Beg @ SE cor 19-140-29. Correcting South.
917.40. goes West 16 ft. 1577. goes W 20.
@ 1737. W 25 ft.

Beg @ a post 1737 ft N. of M.C. on E
side of 30-140 run N 74° W 84 ft. N 28° 30'
W. 588 ft. intersecting 20 boundary
of 19. 9 38 ft west of SE cor.

Following old road on N. side of Deep
Lake Indian @ 8° 00' Run N 80° E 540
ft. 9 80 E 360 ft. East 180. N 75 E
180. Bridge. Thence N 71 E 450 ft.
N 53 E 450. N 51 E 360. N 15 E 140. N
40 E 100. ft. N 25 E 180 ft. N 7 E 90.
N 41 E 450 ft. N 82 E 810. N 65 E 270.
N 75 E 190. N 45 E 80 ft. N 30 W 325. but
intersecting South boundary of Section

Correcting back. W 25-29

3300 goes 9 37.5 ft. 2640 9 30 ft.
1980 9 22.5. 1220 9 15 ft.

320 ft from cor see 16-17-20-21-
140-30 N to the Cen of new wagon
road. Tusler & son get in
one day.

Hanson & son get in 1/2 day

B.B. Bortlett's note. This 16-140-30 are as follows
Beg @ pt on W side 16- 320 ft N of SE cor. then
N 60° 30' E 110 Rods. (1815 ft) 9 85° 15' E 2145
ft. (130 Rods). 9 51° 30' E 1501.5 ft (91 Rods)
East (26 Rods) 429 ft. on line to SE
cor. sec. These courses were laid
with a compass 9° 00'. Bortlett worked
one day at this work and I and O.K. his
bill

326

Sunday.

Pine River Minn
April 21-07.

31-138-29.

Wideman's Townsite.

Mr Eugene L. Forbes & I left in morning and located Sec 31. from B.T.S. Then run N. 1320.3 ft set Hub too windy to work so we bunched it and came home for dinner.

Apr 23-07, continuing N on $5^{\circ}45'0''$ on @ 1320.3 off set 200 ft West thence North 7626.4 ft Hub Thence West 25 feet Thence N 562. ft Thence East 225 ft to Section line. Thence S. 4.4 ft and set limb $\frac{1}{4}$ hub. at 2640. Then N 2640 feet to one mile Hub. and at 5280 true corner stands N $44^{\circ}57'$ E 20.6 ft. Total length of line is 5294.5 ft. at 5294.50 ft true corner stands East 141.50 ft. Correcting back set hub 2640. N. $44^{\circ}57'$ E 10.90 ft drove hub and quit for night.

Got in a half day I guess.

April 24-07.

I went and made a preliminary survey of Sec 22-139-29. for Mr Robert H. Rose of Phoenix Bldg & Mpls State agent Springfield & M. Insurance Co. Mass.

April 25-07. AM. Forbes & Carty Sillman
By @ New set $\frac{1}{4}$ hub on E side of 31-138-29. we run West $8^{\circ}00'$ on @ 1320 set peg $\frac{1}{16}$. @ 2640 set $\frac{1}{4}$ Hub in road. @ 2740 Hub E bank of Norway brook. Then triangulation across river by setting hub 100 ft N of 2740. By triangulation Hub on W. side of River is at 2841.40 ft

P.M.

@ 2841.4 Hat on W side of Norway Brook.
3381.6 Hat. 3960. Temp 116° Hat 4588.8
Hat 5280 Hat 1. mile

@ 5506.5 Turn $1/4$ stands S. 29.2 ft
Beg @ SW Cor from Kinler 116° N $15 1/4^{\circ}$
stake point is 1328.3 from $11/2$ port to
Hillmquist fence is 29.2 ft N + S 8.00
From Kinler 116° S to Turn Cor is 1324.2

Beg @ SW Cor of Turn 138-29 Run East
 80° 30' Var. offset N. 730.6 ft to R.R.
Track. Then 493.9 ft East.

Quit for night.

April 29-07. Forb & Killman: worked
 $1/2$ day P.M.

See 31-138-29. Beg @ post previously
set 730.6 ft N + 493.9 ft East of
SW Cor we continue East on 8.00

Run N 69.4 ft Then East. @ 1320. set stake

@ 2220 W Bank of River near Bridge

@ 2320 E Bank of River @ 2640 Hat

@ 2760 Hat in road. Then back 21 ft
and at 2739. match for Hat. Turn
right angle and run to 800 feet

$1/4$ port stands West 29 ft and S 8.80 ft
Total length of line is 2710 ft and
only missed it 8.8 ft which was a
close run. Then beginning @ $1/4$ port

on so side of 31. we run E 80° 30' Var

@ 1320 Hat. 2640 Hat 2675.2 Hat

True Sec cor. Total run is 5385.2

ft 105.2 ft too long Then

Beg @ NE Cor 31. True run West to MP.

at 21. The total distance is 1125.4 ft

our chain and is 1118.7 foot ch.

or 6.5 ft too long. Then

coming back to Cen of 31. in wagon

road we find that a line N to

Cen line of 31. or taken from the

Meander North and running so

to $1/4$ port would cross E.W. The line

at 2646.50 ft or $6 1/2$ ft more than a

half mile.

Over.

(26)

Pine River

Widemann's Addition

31-138-29

When going to $\frac{1}{4}$ post on W. side of 31, we find that - 15' draw a true line from the S.W. cor of 31. N. to M.C. N=18. The dist is 85 ft 10" long, and $\frac{1}{4}$ post stands E of it 11.4 ft out of line.

We find that in running West thro cen of 31 138-29 total distance is 5506.5 and our preliminary line comes out 33 feet N. of $\frac{1}{4}$ post on W side of Sec N+8 Cen line crosses E+W preliminary line 2649.1 ft W. of $\frac{1}{4}$ on E side of 31. Hub 2649.1 goes S following N+8 Cen line 15.88 feet where we drive 2. inch pump pipe 30 inches long for centre of Sec 31-138-29

The N+8 Cen line of 31 runs on $5^{\circ}10'$ Var and E+W Cen line runs on $8^{\circ}15'$ Var. Angle of the two lines is $93^{\circ}12'$

From Cen of 31-138-29 run S. 33 feet drive stake. Then 70. drive stake 1. foot from river bank

Beg @ S.E. cor. Widemann's Addition it is 358 feet West to the river

100. N. it is 358 ft W. to the river

170 N " " 315 " " " " "

470 N " " 290 " " " " "

550 N " " 180 " " " " "

$3^{\circ}12'$ would be off 1.9 feet in 33.

It is 856.2 feet from cen of 31-138-29 S. to

Hub drove in Plank's Addition and 1797 feet then to $\frac{1}{4}$ on S side making 2653.2 in whole distance

The NE $\frac{1}{4}$ of SW $\frac{1}{4}$ 31-138-29 is 1326.6 on E side on 6.6 feet over length

From $\frac{1}{16}$ cor at S.E. cor of NE SW, West to Waters Edge is 358. ft

(27)

137-30

May 7-06

at cor to Secs 7-8-17-18 - 137-30 set Hub

2, B.T.S.

Run East 8°30'40"

765 feet hub 1320 hub 2320 hub 2330.3 hub
 2640. hub 1/4 No B.T.S. 2886.3 " and quit. for
 the day Geo C Olson and John Allen ch
 John Halstead back shot
 Mike Thompson - Ole Hoplin Jr and
 Ole Hoplin Sr axmen

May 8-1906

137-30

@ 2886.3. continue East @ 3440 feet hub
 3960 hub limp 1/16 4685 hub @ 4980 enter
 Swamp 5280 Hub in meadow See Co
 No B.T.S. @ 6480 hub 6600 hub 1/16
 7920 hub limp 1/4 No B.T.S. 8935 hub
 9240 hub 1/16 9540 hub 10560 set 2 mile
 See Co hub No B.T.S. 11560 hub 11880 1/16
 13200. set hub 1/4 Turn cor stands E 31° 8' S.
 86.40 feet Found old W.P. 16 S 1 E 28
 Correcting back 10560 goes E 31° 8' S
 69.12 feet 5280 goes E 31° 8' S
 Quit for day same crew

Correcting

For survey made May 7-06

Hub	Distance	Bearing	Feet	Then	ft	Thence	ft
1320. 1/16	E	31° 8' S	8.64	ft	Then	3. ft	
2640.	1/2	" 31° 8' S	17.28	"	"	5 6 "	
3960	1/16	E 31° 8' S	25.92	"	"	5 9 "	
5280	1 mile	E 31° 8' S	34.56	"	"	5 12 "	
6600	1 1/4 "	" " "	43.20	"	"		
7920	1 1/2 "	" " "	51.84	"	"		
9240.	1 3/4 "	" " "	60.48	"	"		
10560	2 miles	" " "	69.12	"	"		
11880	2 1/4 "	" " "	77.76	"	"		
13200	2 1/2 "	" " "	86.40	"	"		

Correcting

Hub	Distance	Bearing	Feet	Then	S.	ft	Thence	ft
Hub 3960	1/16 goes	E 31° 8' S	25.92	Then	S.	9.	ft	
" 5280	"	" " "	34.56	"	S.	12.	"	
" 7920	"	" " "	51.84	"	N	30.90		
" 9240	"	" " "	60.48	"	N	52.35		
" 10560	"	" " "	69.12	"	N	73.80		

(28)

Sunday April 14-1907

137-30

John P. Leaf and I left Pine River with Leaf's team. Herby Leaf took us to Bob Rhian's place and from there we rode to point near Mike Thompson's place and thence walked and carried survey outfit to Geo. Olson's and got dinner. Young Leaf went back from Rhian's.

PM

John P. Leaf - Geo. Olson swore in as chairman at 1.30 PM. Mike Thompson. Matti Batsen as men.

Beg @ 1/4 post bet secs 8 and 9 near Thompson. 137-30 we locate true 1/4 from WP 35 S 35 E 33 lbs = figures have been burned partly off but Leaf remembers well. Only the roots of the spruce remain.

Rush 8 9° magnetic var.
@ 701.2 feet top of rise 1820 Hub, 1899 Hub
2500 enter meadow 2640 set Hub. Limp
sec cor 1375 gone 3540 LV meadow
3639.70 Hub 3960 Hub Quit for night

April 15-07 Leaf - Olson Ch. Thompson
ax. continuing south John Hall ax

@ 4012.60' Hub 4280.45 Hub 0 9° 20'
4560 enter little slew 4720 LV same
5280 Hub top 1/4 NO BTS
@ 5880' offset 41 feet west so as to chain in the road (but this offset will not be recorded in these notes) so we go straight ahead with our base line and @ 7882 set Hub True cor stone sets west 41 feet

In the whole run of 7882 feet we are off 38 feet short on measurement and 41 feet too far East on course

Correcting back

6600 goes N 34.66, Hub 5280 N 25.45 ft
and West 27.46, Hub 4280.40 goes west
19.88 Hub 3960 goes N 19.11 x W 20.50
2640 goes N 12.73 and W 18.73

(29)

April 15 1907
137-30Geo Olson - John P Leaf chairman
Mike Thompson - John Hill ex menReg @ cor 3-4-9-10-137-30 run to 9°15' W
@ 5280 Hat see on N 137S quit for night

April 16-07 Continued South

Olson - Leaf Ch. Thompson and Tommie
Wilson ex @ 7920 Hat. True 1/4 sec
south

April 17-07

See

Olson - Leaf Ch. Thompson & Thos Wilson ex

Reg @ 7-8-17-18-137-30 run west 8°15' W

@ 476.6 Hubon hill 20 feet High

575. E edge of swamp 700 L swamp

960 enter swp 1175 L swamp foot of hill

1320 Hub side hill 1370.20 Hubon hill top

1900 Hat on Beaver Loom Enter swamp

2100 L swamp 2300 enter swp

2640. True 1/4 N 137S True Ch about 1/4 stands

V about 33 feet dirt but BTS is 6 feet too

long so I do not bother to set 1/4 post

@ 3152. 40 Hat 3865. 80 Hat. 3960 Hat

4475. 80 Hat 5289. 14 stakes;

Cor of graded road stands N 75 feet and

E 20. 1 foot No BTS.

Leaf went home to Pine River

We locate this corner later

Some notes: "137-30 at 1/4 on N 8S line

@ 5280 We went N 25 1/3 feet and W 30 ft 10 inches

Some notes: Going south @ 1 1/2 miles true 1/4
stands E 17. 8 WestSome notes: - at 5280 on EX W line. line
goes South 12, and W 7. It is 29 feet from
line see cor N. to our old line

Borne Notes: True sec cor is 2.16 ft E.
(tag E) and 83.80 ft N (tag N)

"9. Charnless 11.16 ft."
"565 and 832 = 1397 feet" Whole run of 1 1/2 miles
is 77 feet 10 in long
At 5280 going to Ht goes S
51.32 and 12 ft E V. 8° 30'

To put in line 1/16 part @ 3960 on N & S line
we run 19.16 ft N. and 251.75 W

April 26-1907

Secs 8 and 9-137-29

I took my transit and walked to New
Pine River Bridge and met P.S. Parish at
9.30 a.m. We proceeded to check up the

preliminary line we run between 8 and 9
a year ago

Walking to cor of 4-5-8-9-137-29
and looking up our old 5280 Ht we found
that the old corner stands N 78° 5' E 34.8
feet 3960 sets N 78° 5' E 26.20 feet
2640. We set N 78° 5' E 74 feet
1980 " stake N 78° 5' E 13 feet

Then Parish
thot we ought to change the road line
near the bridge so we stake it out as follows

Run Bridge approach as follows:

Begin @ point in cen of bridge about 30
feet from S.W. end 1125 ft N of SW cor of Sec

Then N 36° 47' E 192 feet
N 48° parallel to W. sec line 300 ft Then
N 15° 5' W 422 feet intersecting Sec line
at a point 1980 ft N of SW cor near P.R.

Quit at 3. P.M. got in full day.

Linden says we are not to record the
stone surveys and notes because we have
a release of 1 downages and our old
survey run some time ago must stand
as it is but the road builders may
build the road on our last survey if
the land owners do not notice the
difference Parish is an old fool
to want to change my old survey.

SUR. REC. C. (COL) 31

(A)

137-29

Pine River Minn

Sec 7.

Feb 8 1912

Subdividing Sec 7-137-29

for James K. Ramsey

Lr Walker at 935 A.M. N.K. fare

91⁰⁰ at Pine River

Dinner and over night with
Geo Eisenhauer at Hotel Barclay
P.M.

Ramsey get lively team and
Miller drives us to Cor

of Sections 7-8-17-18 137-29

where Government notes call
for Aspen 3 N 48° E 56 links

Aspen 3 N 29° W 72 links. While Pine

2 4 S 48° W 100. links. Aspen 3 S

33° E 40 links. We find a stone

previously established by me for
the true corner set so that

the highest point on the west
side is the true corner. The hill

slab of the old White Pine bearing
line still stands and the

corner post of Talons fence
stands 2 feet SE showing

that he has built his fence

2 feet too far E or for his true
line

7-137-29

32 Pine River

B

Continued: Feb 8-1912

We shovel off the snow and find the sharp rock upon which we set a back shot and shovel snow around it so as to hold it in place. With transit set over $\frac{1}{4}$ of a mile North in the East edge of a new N+S road back sight on back shot set at cor to 7-8-17-18 and run North on $8^{\circ}45'$ magnetic variation.

Melvin J. Ramsey and I chaining perfect plumbob line: @ about 250 feet cross N+S wire fence.

@ 300 set wood pin in snow

@ 600, 900, 1200 " " "

1320 feet set snow hub @ 1500

pin 1800 pin 2100 pin 2400 pin

2640 feet set snow hub for trip $\frac{1}{4}$ corner where first notes

call for a post and the following bearing trees: aspen 5

S 76° E 12 links: aspen 5 S 82° W

24 links: These are both gone or

I looked for them years ago

@ 2700 set pin: @ 3000 set pin

7-137-29 continued 33. Pine River Feb 8-12

@ 3026.90 feet set snow hub 10 feet
East of road: @ 3300 set pin @
3385 intersect cen of grade of old
main Government wagon road
which bears NW + SE @ 3600
set pin. @ 3663.70 feet set snow
hub East of Ramseys barn and
quit for night

Heller to Brightly Summit (New)
300 foot Chicago still lake

Atto J. Anderson Axman

John Halström

James K. Ramsey

J. Melvin J. " and J. Ch.

Over night with Geo Eisenbaum
3900 feet 3930 enter to bank of
ice on Pine River @ 3960 set
snow hub on ice lump 1/16

@ 5280 snow hub on ice in Norway
Brook

We leave this and walk to 74.

On E side Sec 6-137-29

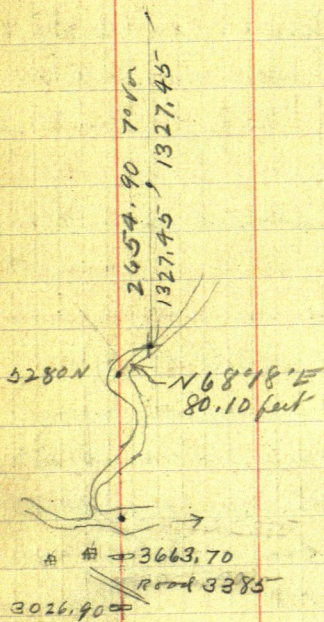
previously established by me

7-187-29

N

34.

(D)



act 17
37.1

8

7-137-29 Continued (35) Pine River Feb 9-12

HTB transit 300 ft Chi Lake. (E)

Jas R. Ramsey - Marlin H. Hagen
Alto J. Anderson. John Holstrom &
Melvin J. Ramsey & C chaining perfect
Baz @ pin N^o 12 continue our transit
line North. @ 3663.70 snow hub
@ 3930 enter Pine River; at 3960
set snow hub on ice lamp 1/16
@ 5280 set snow hub on ice
in Norway hook

The line NE Cor Sec 7 bears
N $68^{\circ}18'E$ 80.10 feet angle
turned from our preliminary first
run. I have established
the NE Cor 7-137-29 years
ago from old Gort bearing trees
and set a wood post in
the river with bearing trees as
as follows 7th Nor

Norway Pine 10 N $81^{\circ}23'E$ 113.32

Elm 24 S $62^{\circ}E$ 98.85 feet

Paplar 8 N $0^{\circ}42'W$ 203.50 " 1st

lock heads drove in face of line.

A quarter of a mile north
of the NE Cor 7-137-29 I established
the 1/16 cor and put in new bearings

(7) 7-137-29 cont'd 36 Pine River Feb 9-12
as follows:- Tack in fence post
SE 24.65 feet " " " "
West 18.25 feet.

at the $\frac{1}{4}$ on East side of sec
6-137-29 I established a 1x12
rich iron pin for the true $\frac{1}{4}$ from
both old bearing lines and a
spike in the stowed off stump of
the SE old tree bears S 35° E
7.92 feet so in order to check
on these three corners I set the
transit over the spike and @ $8^{\circ}46'$
or I ran N 35° W 7.92 feet and
set a back shot over the old
iron corner point which is at this
time too badly frozen in to find.

Taking transit $\frac{1}{4}$ mile south I
set it up over the lock in the old
 $\frac{1}{16}$ back sight on true $\frac{1}{4}$ cor and
ran south @ 7° var: @ 1327.45
feet intersect lock in line $\frac{1}{16}$

then chain south 1327.45 feet
more and at 2654.90 drive
10^d nail in ice for the true cor
and find old b's stand perfect

@ 7° var temp snow h'd 5280 bears
29.65 ft so and 74.10 feet west

Over night at Barclay.

37 Feb 10-1912

Sec 7-137-29.

Pine River

(4)

James K. Ramsey and I Channing
Martin Hougren. Otto J. Anderson
John Halstrom. Melvin J. Ramsey &

Correcting the East line of Sec 7-
137-29. at Hrb N of SE Cor. Sec 7

5280 line NE Cor bears $N 68^{\circ} 18' E$ 80.10 ft
at 3960 we run $N 68^{\circ} 18' E$ 60.08 feet
where we cut a hole in the ice and
drive an iron

for the true $\frac{1}{16}$ with new bearings as
follows @ $7^{\circ} 30'$ Nor to lock heads

N Pin 14 $N 78^{\circ} 51' E$ 221.82 feet

Willow 3 $N 9^{\circ} 9' W$ 76.38 "

Elm 6 $S 70^{\circ} 30' W$ 145.50 "

" 5 $S 30^{\circ} 30' E$ 159.61 "

Correcting line:

3663.70 goes $N 68^{\circ} 18' E$

3026.90 " " " "

2640 " " " " 40.05

where we drive iron

with new bearing as follows $7^{\circ} 30'$ Nor
to lock heads drove in a spot

Oak 3 $N 37^{\circ} 12' E$ 75.25 feet

Poplar 3 $S 59^{\circ} 32' E$ 45.90 feet.

1320 we set $N 68^{\circ} 18' E$ 20.02 ft
No BTS drove iron

(38)

P.M.

(H)

137-29 Sec 7. Pine River Feb 10-12
 Beg @ $1/16$ in Pine River S of NE Cor
 Sec 7-137-29 run West 7:30 AM

Jos H Ramsey and I chaining
 without plumb bob 2nd class

C

Lv Pine River

@ 1158.50 snow hub. 1245 cen of
 Gout road; bears NW and SE

@ 1320 set stake @ 1461.80 snow
 hub: 2606.3 snow hub: 2640 stake

3851. snow hub 3900 pin. 3960

stake had hub quit for night

over night at Barclay Hotel

Pine River

(I)

187-29 Sec 7

(39)

Ramsey

Feb 11-1912

James S. Ramsey, John Halstrom
2 men: Curo & Melvin J. Ramsey
Chaining perfect

Continue transit line west

@ 4400 enter so end of meadow

4500 pin in meadow 100 feet

North of South end. 4600 Leave
meadow; 4743. snow hut;

4800 pin @ 5200 pin. @ 5195.

line $\frac{1}{16}$ sec South 15.55 feet

Going to $\frac{1}{4}$ cor on West side
of Sec 7-137 29 Goat nails
Call for: (x) Oak @ N80°W 34 links

= 22.44 feet; Birch 14 N75°E

20 links = 13.20 feet

We find the old NW oak standing
green and an oak stake previously
established by me for the line $\frac{1}{4}$ cor
and as the stake is a little too high
we cut it off and drive an oak

hut for the line $\frac{1}{4}$ with a lock in
east edge after which a lock

in a new spot on should B.T. bears
N80°W 22.44 feet @ 9°10' cor

which is the course of the range line
(about) We set new bearings on

40/ 137-29

J Pine River Feb 11-12

follows: Oak 7 N 51° 30' E 53.60
feet: Oak 10 S 54° 22' W 67.00
feet to rock heads

From this point being 1/4 on a side
of sec 7 137-29 run N up cat out
road way on 9° or: Chaining perfect
@ 250 ft enter meadow E & W at
300 fm in corduroy: @ 350 lb meadow
600 fm: 884. snow hut: 900 fm
1200 fm: 1289.75 snow hut 1500 fm
enter meadow E & W: 2000 lb same
2100 fm 2348 main road E & W
2367 road E & W 2387.30 hut 2400
fm on top of high bank 2516 enter
Pine River 2640 fm leave river
line NW Cor Sec 7 137-29 bears
North 15.48 feet and East 9.20
feet: at 2655.48 line cor sets.
East 9.20 feet

at the NW Cor Sec 7-137-29
being MCN: 29. Government notes
call for a post and the follow-
ing bearing lines: -

Aspen 5 N 41° E 77. links (= 50.82 ft)
White Pine 20 N 34° W 140 " (= 92.40 ft)

(On May 26 1907 Hays was seen as found)
We find the plainly marked stump
of the old N.W. 137.

Feb 11-1912

(K) Pine Run (41)

and at $9^{\circ}20'$ Var a lock in the cen-
tre bears $N 34^{\circ}W$ 92.40 feet away
a lock in the North root of the old
stump bears $N 33^{\circ}27'W$ 92. feet
flat @ $9^{\circ}20'$ Var magnetic

We find the point of the old Govt
stake which sets perfect for course
and measurement which we
pull up to make room for a new
post which we set. This stake
was set A W Hald, Dean West-
green and Curo set this post
(May 26-1909)

Correcting South

at hut 1289.75 we chain North
37.99 feet and set hut 1327.74
then East 4.60 feet where we
are unable to drive a hub
on account of a stone so
we make a cross (+) in the stone
one (1) inch SW of the highest
sharp point of the stone and
make new bearings as follows
 9° Var to lock heads: -

White Pine Stumps $36 N 47^{\circ}27'W$
56.02 feet; W P tree $14 N 30^{\circ}1'E$
79.77 feet

42) Pine River L 7-137-29 Feb 11-12
PM. Correlating East

thru the E & W center of the North
half of sec 7-137-29: at 5195
feet west the line $1/16$ bears
South 15.55 feet:

4743 goes South 14.20 feet

3857 " " 11.53 "

In order to get "about" the
East line of Otto J. Anderson's plat
I find in "rough chain" the
total length Gov't chain should be
5192 feet about, and we find it
5195 feet on chain or about 3 ft
long so I set stake N° 3960, West
230 feet this is not his line
as we could not find it with
out subdividing the whole sec.
but it is "about" his portion of
the total distance as his plat is
fractional:

2606.30 goes South 7.80 feet

1461.80 " " 4.38

1158.50 " " 3.47

Pine 2640 goes W 1.50 about

" 1320 " W 0.75 "

137-29, Sec 7, (W), Pine River

43

Feb 12th 1912

James K Ramsey and I are working for Carr Co in setting iron Mon.
but I will finish setting over the three lost hubs and at about 2000 west the line hits a 14 inch Norway pine and I have Ramsey make a white spot on East side into which I set a lock 2 inches north of the south side of the line but the top of the tree leans over south / onto Ramsey's land.

At the corner to Sections 5, 6, 7, 8, 137-29 we drive a galvanized iron pipe $1\frac{1}{4}$ inches by 9 feet long. driven solid with a 13 # maul over this $1\frac{1}{4}$ we slip a 2 inch capped galvanized pipe 4 feet long and drive the two pipes. The bottom of Norway Brook is 18 inches below the top of the ice and we drive the pipe until it sticks 1 foot above the ice. at the $\frac{1}{16}$ $\frac{1}{4}$ mile south we drive a $1\frac{1}{4}$ capped galvanized pipe 9 feet long. Done in Pine River

44) 137-29

(N) Pine River

Feb 12 - 1912 S.R. COL.

P.M.

I get dinner at Barclay hotel at 1:30
P.M. and Ramsey pays me in full
in a check for \$17.80 Feb 8 to 11st
inclusive and $90 + 90 = \$1.80$ RR fare
Walker to Pine River & back

Ramsey pays Eisenhower \$2.00 for
day for my board \$8.50 and so I
get in today for Conn Co. I hand

Ramsey \$2.00 which I will charge
to Conn Co

One day for Conn Co 4.00

Hotel E & P at PR 2.00
\$6.00

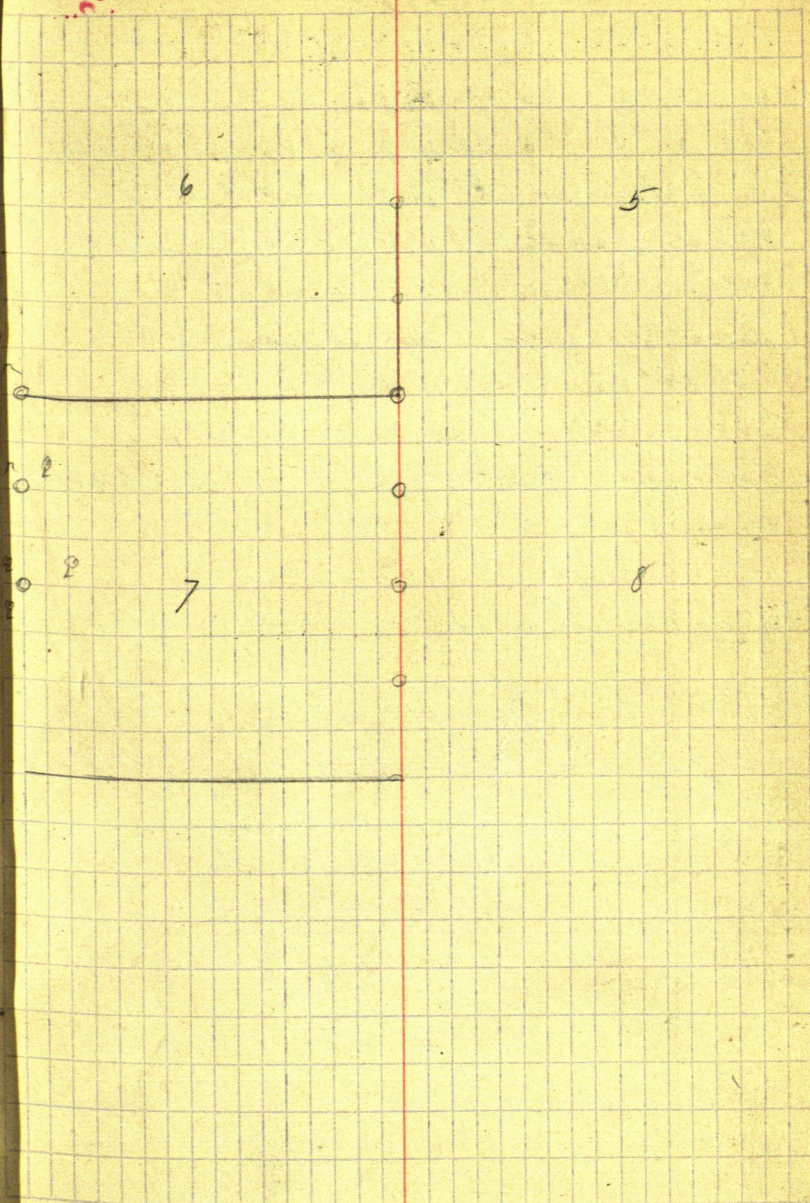
Catch P.M. train home to Walker
one hour late

Feb 13 - 1912 All day at office
working on field notes and
late night train to Pine River to set
river monuments for Conn Co at Pontotoc
RR fare 91¢ see page 46

187-29

10 Dec 7-

(45)



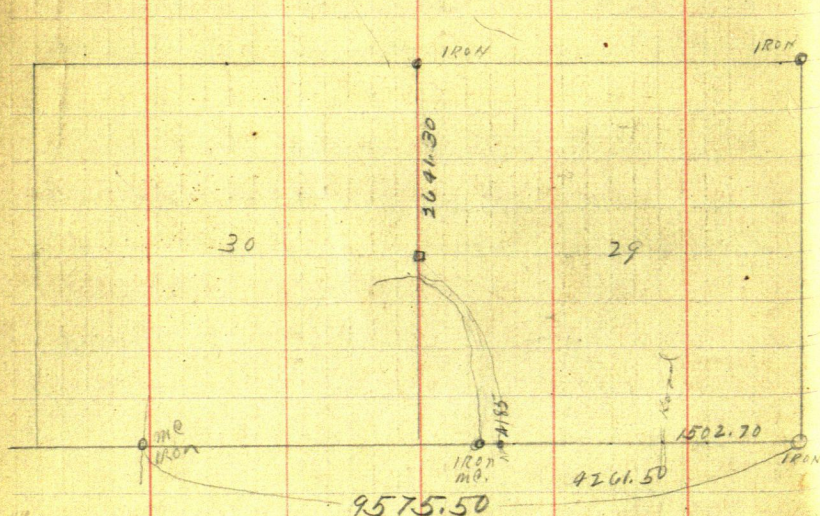
46) 139-29 A Ponto
Feb 18th 1912

Feb 13th 1912

Work all day in office at Walker
on the field notes of 18929
and take the night train to
Pine River to meet the stage
and drive to 18929 to finish
selling iron monument - and
perhaps run the County road
thru sec 3. 18929

RR for CPm River 91^e

Overnight with Geo. Eisenh-
am



285

John W. Curo

139-29

B Porto

(42)

75-14-1912

Pay hotel bill 51.00 and take
Key to Mike Smiths Pay Bill
Bureau 75.00 stage fare dinner
with Mike Smith

P.M.

Mike Smith takes his team and
drives us to the iron corner
at Co. to Secs 19. 20. 29. 30.

139-29 Ruben Smith, Glen
Smith helping me chain and
a man. Run south 7°50' over
over cut out line: 215.70 snow
hub. top of hill. thence over level
land along east side of plowed
field: @ 1320 snow hub

@ 2398.30 snow hub: at 2640
fin line 1/4 but 29 x 30 sets West
5.08 feet and 1.30 feet back

At this point goes back east
for a post and the following
bearing trees: Black Pine 4 N
56°W 20 links (13.20 ft)

Black Pine 4 S 52 1/2° E 17 links (11.22 ft)

We find the stub of the S.E. BT. stand-
ing plainly marked from which
we set a wood stake for the line
1/4 @ 7°50' S on front of tree

285

Jalmweno

40 Feb 14 - 0.12

© 139.29 Points

and set new bearings as follows

Jack Pine 12 N 64° 33' E 50.62 ft

Jack Pine 5 S 34° 25' E 17.08 ft

To back heads @ 7° 50' W

Correcting back: 2641.30 gae
West 5108 feet

2398.30 gae West 4.61 feet

1320 " " 2.53 "

215.70 " " 0.41 "

at line 1/4 back right
on corrected line and run S.

@ 203.45 back in stamp @ 304.30
snow hut at 470.58 stamp M.C.

N^o 31. where Gout notes call for

White Birch 7 N 27 W 19 lks = 12.54 ft

" " 8 N 52 E 60 " 39.60

We do not look for the lines but give a
good stake

all get in 1/2 day in P.M.

285

John W. Cress

Feb 15 1912

D Points 139-29 (49)

Beginning at iron corner to section
28.29 132.33 139-29 run W
7° 45' 00" @ 1320 fin 1500
fin E edge of NTS stage road
at 1502.70 snow hut in road Cen
at 1521.30 Hub. 2690. fin 2651.88
snow hut limp 1/4 Goat moles
call for NP 248 79° W 28 lbs = 18.48 ft
NP 10 N 64° E 47 lbs = 31.02 feet
at 3000 fin at 3040 cross road
SW NE @ 3300 fin 3483.25 Hub
3600 fin 3650 cross road NW SE
3900 fin @ 3977.82 fin limp 1/16
4176.50 snow hut 4200 fin
4211.46 Hub limp MC N° 30 where
Goat moles call for NP 128 42 E
52 lbs = 34.32 feet NP 12 N 64 E
66 " = 43.56 "

We find the slumps of bulk old trees from
which are set a wood stake for the line
MC N° 30 but continue our transit
line a mile west as a "check"

at 4258 stake. at 4261.50 MC N° 30
sets to 13.90 feet Ruben + Glen Smith Ch
Andrew J. Hall ax: H x 13 transit
300 ft laps: Over night with Smith

" 285

John W. Curo

Feb 16-1912

139.29

Glen and Reuben Smith assisting me
in chaining perfect. A.G. Hall at

Continued Weston ice 7°45' N

@ 4258 stake on sea wall

4500 stake on ice: 5303.76

stake on ice limp Sec Cor

54, 57, 6000. set pin on ice 350

feet so of Hard wood Island

on point which bears NE and

west @ 6800 set pin on ice

350 ft so of solid hard wood

land which bears East and

NW: swampy land circles

SW. at 6620 feet enter

solid open swamp. bears NE

and SE 150 feet then SW.

This open swamp has dry dead
leaves and is 4 feet above
lake level.

6900 pin in open it is 500 ft

south to edge of solid land

which runs NE and S.W.

6925 enter paper: 7200 pin

7225 foot of hill enter hard

wood ridge which bears SE

and N.W. it is 600 ft to lake

lake (about) 285

Feb 16-1912

(F)

Ponto.

(51)

at 7410 end of N + S wagon road
at 7481.75 a lack in the heart
of an 8 inch green birch stump
is south 0.50 (6 inches) south
at 7500 set stake 200 ft north of
house owned by 7700 enter meadow
21 solid land which bears SW
and NE goes NE 150 ft then turns
NW. 7800 stake in meadow

at 8025 enter lake bears NW 300
ft then west 300 ft then NW

at 8100 pin on ice. 8400 pin
8700, 9000, 9300, stake on ice

at 9575.50 feet line M.C.N = 32
bears South 16.20 feet

at M.C. 32 of 139-29 Goat
nails call for a post and the follow-
ing bearing lines: N. Pine 16 N 19° E

181 links (53.46 ft) Norway Pine 16
S 17° E 14 links (= 9.24 feet)

We find the tree of the S.E.B.T. well
preserved and every figure plainly
shown but it is down and partly
rolled over on its side. We also
find the stump of the old N.W.B.T.
dimly marked and from there
we set the line M.C.N = 32 in line

52 Feb 16 1912 G Ponto

with an old line of spots running west. We drive a 2×48 inch galvanized pipe capped on top and make new beams as follows

N P 6 N $12^{\circ} 4' E$ 49.90 feet

Paplar 7 S $46^{\circ} W$ 29.80 feet to lock heads in lower spot at $7^{\circ} 45'$ Mag Variation

Coming East to MC N^o 30 on E side of Hattie Lake we pull up the wood hut and drive a

2×48 inch capped galvanized iron pipe for the line MC.

and make new beams as follows

Jack Pine 4 N $51^{\circ} 44' E$ 58.93 ft

" " 8 S $80^{\circ} 30' E$ 39.50 "

N. Pine 4 S $5^{\circ} 19' E$ 65.05 feet

to lock heads @ $7^{\circ} 45'$ var

H & B transit 300 ft Chi. line

Glen & Ruben Smith & I climbing

correct. Andrew J. Hall ex man

Over night with Mike Smith

Feb 17-1912 Ponto 139-29

Correcting East

at limps MCN#30 being cut 4211.46
we chain west 50.04 feet to Hub
4261.50 Thence South 13.90
feet to MCN#30

Temp '116 Hub N# 3977.72 goes
West 47.26 feet to Hub 4024.98
then South 13.12 where we place
the line '116 with new Bearings as
follows:

3483.25 goes S 11.36 feet

2651.88 goes west 31.51 to hub

2683.39 thence South 8.75 feet

where we place a stake for line '14 on

bet sections 29 and 32-139-29

with new bearings as follows

JP43 x a little E 45 ft measured with 8 foot steel tape. ^{NP Camp 16 SW} 50.75 ft to look

the old BTS are gone
Hub 1521.30 goes South 4.96

" 1502.70 " " 4.90

54) Feb 17-1912 (I) 139-29

Reg @ Hut 4176.50 we chain
South 13.62 feet to line see line
then West along the sec line 8.50
feet to a point 4185 West of Co. to
Sections 28, 29, 32, 33, and 76.50
feet East of MC N^o 30 Then to
run the road line around the
East side of Hallie Lake on 8th Mag.
Voc N 23° 12' E 660. feet to Sta
N^o 1. N 16° 22' W 110 ft to Sta 2,
N 20° 55' W 175 ft to Sta 3 (c)
N 29° 55' W 180 feet to Sta 4. (D)
at foot of hill 40 feet West of old
log road E + W. Thence up hill:
N 37° 11' W 125 feet to Sta 5 (E)
N 54° 23' W 105. ft to Sta 6. (F)
at old camp ground in handsome JP
& NP timber
N 85° 23' W 355 ft to Sta 7. (G) on
sharp point of hill; Thence down hill
N 54° 12' W 85 ft to Sta 8 (H) at foot of
hill; thence along low solid land
N 5° 55' W: @ 300 p.m.; at 475 ft
top of small hill; thence down hill
at 575 enter solid creek bottom
at 595 enter creek bears NE + SW
600 p.m. on ice in creek

139 29

(J) Feb 17-1912

55

Six inches of water in creek and one foot to top of ice solid sand bottom 614 L creek runs westerly enter solid high creek bottom at 745 foot of hill: thence up hill: 825 top of hill 890 set Sta 9. (I)

N 29° 46' W down slope 217 ft to station 10. J

N 73° 30' W at 90 feet foot of slope thence up long slope @ 282.50 Sta 11.^K

intersect section line at top of hill 304 feet south of 1/4 corner

This line is run by compass needle in new H & B transit at 8° Mag

or set up every other station

No back sight use and can be

relied in same manner. 300 foot Chicago steel tape plumb-bob measured line by Glen Smith and J. Rube Smith and Andrew J Hall axmen.

Thence North along sec line which runs on about 7° 50' or, 304 feet to Sta N-12 being the 1/4 corner between sections 29 & 30. Thence North on sec line 7° 50' or 2641.30 feet to Sta N-13 being Iron cor to sec 19, 20, 29, 30.

285

56) Feb 17-12 K 139-29

Bag at iron cor to seeds

19.20.29.30- 139-29 run north on

8° May Var @ 1037, cen of road E & W

1065. 10 snow hub: 1320 stake line

1/16 @ 2023, 70 snow hub @ 2100

Set hub and quit for night

Over night with Mike Smith

"285

139-29

L

Feb 18-1912

(57)

Ponto

AM

Sunday 8⁺

Glen Smith checkup the sec line
between section _____ as given

on page. Ruben Smith, Albert
Smith and Ed Loge

Begin at hut 20 23.70 and cut line
North (Loge arrived at 11 AM.)

Glen Smith and I chain perfect
2100 pin 2900 pin 2640 pin

2700 snow hut at 1/4 bet sections
19 and 20

Goat makes call
for BP9N85E33. 4P16S42W 19 lks

@ 2760 cross road NE & SW

@ 3000 pin at 3270.10 snow hut at

3300 pin Magnetic Variation Chan-
ges to 8° 25' PM

Ruben Smith and I chaining

@ 3600, 3900 pin 3960 snow hut

4200 pin. 4400 enter cranberry bog

NE & SW 4500 sticks in bog 40 ft

West of Fort end. at 4585 LV bog

bears SE & NW 4698 Hut 4800 pins

5100 pin at 5280 Hut 17 ft NW of Road

at 5262.50 line corner to sections

17, 18, 19, 20, 139-29 bears East

285

58) Feb 18-1912

M.

139-29

at the corner to sections 17-18-19-20
139-29 Goat notes call for a post and
the following bearing trees

B P 12 N 63° W 132. lks = 87.12 feet

B P 10 S 86 1/2° W 73 " = 48.18

Dead Pin 10 N 30° E 44 " = 29.04

" " 9 S 57° E 25 " = 16.50

Slake road N° 5 coming from back
us comes East to this corner then
turns north and runs 1/4 mile (or less)
thence East. As it has been graded
and the snow is deep we do not
seem to find the old bearing trees on
slake so as a check up I turn
the transit on the iron corner
(or a point near it) a mile west
transit the telescope and start
a line East

Then start another line West
at 11° 0 on

A team drives over our line and
breaks it at 181 feet

Ruben Smith and I take the
181 foot line, walk a mile west
and chain East over the
straight graded road using
180 feet of the chain

139-29

N

Feb 18, 1912

(59)

at 7 chains plus 57 feet = 1317 feet
a fence runs North (180 foot ch)

At 16 chains plus 175 ft = 2880 ft
a fence runs North

This is near the 74 corner between
Sections 18 and 19 139-29

where Govt notes call for a post
and the following bearing lines

NP 18 32 $1\frac{1}{2}^{\circ}$ E 66 lks

BP 7 N 35 $^{\circ}$ W 8. "

we do not find them and continue
East At 31 chains plus

126 feet we intersect a hut
under the transit being the
assumed corner Total distance
5580 feet + 126 = 5706.

The total Govt chain calls for
2508 links plus 6000 links
= 8508 links = 5615.28 feet

Quit for night over night with Mike
Smith Albert Smith, Glen Smith
Rube Smith, Edward Logee
worked all day for Pontotoc Lake Trwp
I am working Pontotoc also

John W. Curo

285

(60)

139-29

O

Ponts

Monday Feb 19-1912

I am working for Cess Co. & Ponts Lake
Twp. 180 foot chain H & B Transit

Glen Smith drives me to the corner
to section 3, 4, 9, 10 - 139-29 being
an iron monument set in a bed of
cement by Toad from old Gout
bearing trees. I start a line
North @ $8^{\circ}45'$ magnetic declination

With John Dorey, Hosey King &
men who I instruct to cut a picket
line a mile north. I leave them
the tail end of my broken tape &
tell them to chain around 118 feet
and number their stakes

Glen Smith then drives to
the 1/4 Cor bet 2 & 3 - 139-29 where
Gout notes call for a post and
the following bearing lines:

Norway Pine 24 East 104 lks = 68.64 ft

White " 15 S 67° W 116 " = 76.56 "

We find the stump of the East tree plainly
marked "B.T." from which we set the
line corner @ $7^{\circ}30'$ over from foot of B.T.

make new bearings as follows Pine Glb
15 S 56° 30' E ³¹⁸ 68 30° 18' W 57.65
Start a line west @ 18° over

285

Feb 19-1912 P

139-29

(61)

Ruben Smith, Andrew Hall, Ed Logue
cut line and continue transit line north
from assumed corner to sees 17-18-19-20
these three work half day for Pontic Traps
while I and Glen work all day for
Coss. King & Honey are working for Coss.

Glen Smith begin again at Sta
o.o. being assumed corner to sees
17-18-19-20-139-29 and chain East
over a line cut on 8'10'00
180 foot chain P.B. line: at 180 ft
enter bog: at 620 ft 20 same:
at 1800 feet set pin on ice
at 1821.36. true M.C.N. = 43 bears
North 25.60 feet and West 1.70 ft

at this point old Gout's value call
for NP 208 70 W 95 lbs = 62.70 feet
Aspen 5 N 3 1/2° E 41 " = 27.06 "

We find the aspen standing green and
plainly marked from which we set
a post @ 8'10'00 and make new bear-
ings as follows. Aspen 78 77°15' W
23.90 feet to a larch head: & also we
find the stump of the old S.W.B. which
stands S 70°45' W 64.40 feet

This shows that our M.C. just set must go
1.70 feet further west which will leave it
22.70 feet to new B.T. Total dist 1821.36 ft

62) Feb 19 1912 Q 139-29

The dist from ch from an C 43 W. 10 sec
cor is 2784. links = 1837.44 feet and
My chain to hub 00. at assumed sec cor.
is 1821.36 or 16.08 ft short

285 Again looking for cor to
17-18-19-20-139-29 we find stumps
of old N.W. 13 T. and roots of the
other stumps which places the
corner 3.42 feet West of our
hub 0.0.

Ponto

R.

189-29

(63)

Tuesday Feb 20-1912

180 foot chain H & B Summit
Glen Smith, R. Lee Smith,
Andrew Hall Ed Logge working
for Ponto Twp

Beg at a point 3.42 feet
East of the true corner to sections
17-18-19-20-139-29 we run Nathan
10° 35' 10" Rule & 4 in chain rough
with 180 foot chain at 1300 St
County road run East

at 540 feet v. set stake N= 3.

at 1260 " " " " " 7.

" 1800 " " " " " 10.

" 2700 " " " " " 15.

" 3240 " " " " " 18.

" 3960 " " " " " 22.

" 4860 " " " " " 27.

" 5308 " " " " " 29+88 ft

True corner to sections

7, 8, 17, 18 set East 173.80 feet.

At this point Gov't notes call for a
post and the following bearing lines

BP 6 N 11° E 50 links = 33.00 feet

NP 15 N 65½° W 103 links = 67.98 "

BP 4 S 36¾° W 76 " = 50.16 "

" 9 S 60° E 72 " = 47.52 "

#285

64

139-29

S 7620-1912

We find the NE and SE old trees
standing green, plainly marked from
which we set the true Sec cor by
flat chain from face of figures
after which they stand as follows

9° magnetic variation
old SE BT bears S $58^{\circ} 30' E$ 47.52

" NE " " N $14^{\circ} 30' E$ 33.00 feet

We mark a new bearing trees as
follows N $8^{\circ} 42' E$ 59.50 feet
to back head. 9° Var.

the old SW and NW BTs are gone

Correcting back

Stake No 27, goes East

" " 22 "

" " 18 "

" " 15 "

" " 10 "

" " 7 "

" " 3 "

Feb 20-1912 T 139-29

(65)

Begin at corner to sec 7, 8, 17, 18 139-29
run N on 9° 00'

at 540 ft N set stake N = 3

" 900 " " " " " 5

1440 " " " " " 8

1711.30 set snow hub

at 2643, the line 1/4 corner between
Sections 7 and 8 - 139-29 bears East
54.70 feet

At this point Gout noles call for:
a post and the following: bearing
lines: NP 12 S 76 E 27 lks = 17.82 feet
BP 12 N 69 W 36 " = 23.76 "

We find both lines standing plainly
marked which check out for
course and distance perfect for
course at 9° 00' and 1.05 (1/2 inch)
long for measure Mark a stump
for new bearing pine stump 8

S 32° 11' W 48.40 feet to back head

Correiling back

2643 goes East 54.70 feet

1711.30 35.41 "

at stake 8 we chain South 118.50

1/2 1321.50 then East 27.35

and set 1/16 post (rough)

Sta 5 = 900 ft goes E. 18.62 feet

" 3 = 540 " " E. 11.18

285

Feb 21-1912

I and Helen Smith working for
 Cross Co in establishing Ch to
 Secs 17-18-19-20 - 139 29

Total distance from SW Cor 18 E
 to MC 43 is

Gout Chain	7452.72	feet
My Chain	7401.36	7527.36
Short Long	51.36	7464

From MC N = 43 West to Sec
 Cor is 1837.44 feet Gout
 = 1824.78 feet my chain
 or 12.66 feet short

Correcting

Hub 0.0. gals west 3.42
 feet where we place the true
 Sec Corner to Secs

17-18-19-29 with new

BTS viz

Jack Pine S 55° 45' 14" W 75.68 feet

" " 68° 56' 18" E 83.02 "

to pencil mark on flat spot near
 root of trees

V Feb 21st 1912 67

Correcting

at 5280 N the NE cor^y 19
beas 17.50 South and 58.38 E
A 52 62.50 cor slant, E. 58.38
4698 goes East 52.12
3960 goes S 13.12 to 3946.88 + E 43.78
3270.10 goes E 36.26
2640 goes S 8.75 to 2631.25 E 29.19
2023.70 goes E 22.45
1320 goes S 4.37 + E 14.59
1065.10 goes East 11.82

Glen Smith, John Dorey and I
Correct up the mile of line bet
Sections 17 & 18 and the mile
between Sections 19 and 20 139-
29 as given on pages 63, 64, 65
and 66 and get through at 2.05
P.M. Smith drives me to Bockus
where I catch the P.M. train to walk
to get Moulsters and notes on
the 1/4 between Sections 10 and
11, 139-29 as I must have them
to put in the corner to Section
2-3-10-11-139-29

We took our dinner on the run
our night at home in walk

John W. Cum^{er} 285

68	Ponto	W	139-29
	Correcting bet	Revs	7021-1912
			17x18
5308	gals	Foot	173.80
4860	"	"	158.84
3960	"	"	128.79
3240	"	"	104.75
2700	"	"	86.73
1800			56.68
1260	"	"	38.65
540	"	"	14.61

Correction = .033387 - $\frac{1}{16}$ E
 for each foot N - 3.42 at
 each correction

285

John W. Cuss

X

69

Feb 22nd 1912

at Walker copying notes of Moul-
 ler's Survey for Good this sec 3.
 139-28 One day for Cass Co

Feb 23rd at Walker

Feb 24 " "

Feb 25 " "

Feb 26 " "

John W. Curo

285

March 14th 1912

Copy Moulstier's notes of surveys made in 139-29 and compare them with Gout notes and take night train to Pine River R.R. for Walker l. Pine River 91st

I get in one day for Coss Co on survey of State road No 5. thro Sec 3-139-29 hold Exp 9⁰⁰

Mar 15 1912. Friday

I go from Pine River l. Mike Smiths place on Wm Burrell's stage Arrive at noon pay " 75st stage for dinner at Smiths P.M.

Glen Smith and team drive me to Oscar Sales where we get John Dorey a man We drive to 1/4 on E side of Sec 3-139-29 and run a transit line west across the lake. @ 8' Var Leave Dorey cutting and Smith & I drive to iron mch @ SW Cor sec 3. and cut a line East @ " on 1/2 day for Smith & Dorey: 1. day for me. John Wears

① 139-29- sec 3. Mar 16-1912 71

Curo Transitman ^{Salvador} Allen Smith &
team. Oscar Gooden, Herman
Siltman, & men. Hasey King
works in P.M. (arrives while we
are eating our dinner at $\frac{1}{4}$ on W. side
Sec 3-139-29)

Siltman continues picket line West
thru cor. of sec. 3

Smith, Gooden, King & I run transit
North from Iron at SW Cor. of sec 3.
@ $8^{\circ}30'$ over our cutout line

At the $\frac{1}{4}$ cor bet Secs 3 and 4
139-29 Goat notes call for Q-D-6
BP 10 N 88° W 340. lbs = 224. 40 feet
" 8 N 46° E 20 " = 13. 20 "

all are gone and we continue North
@ 3:50 enter round marsh lake bears
NW & East @ 3:55 to lake bears SW & E
@ 5:13 8.10 lamp NW Cor Sec 3-139-29

line corner sets North 20.40 feet
to Hat 5:58. 50 North then west 99.20
feet to the true NW Cor Sec 3-139-29
where Goat notes call for "D"

BP 16 N $37\frac{1}{2}^{\circ}$ E 142 lbs =	93.72 feet
asp 15 N $9\frac{1}{2}^{\circ}$ W 92 " =	60.72 "
BP 88 1° W 60 " =	39.60 "
" 8 S $4\frac{1}{2}^{\circ}$ E 65 " =	42.90 "

" 285

Jabini W Curo

139-29. Mar 16-1912

©

We find the tall stump of the Saw tree standing plainly marked from which we set a wood stake for the line cor @ 8:30 Var from face of B.T. and make New Bearing lines as follows:

Birch $89^{\circ} 13' 20'' W$ 25.55 feet to cross
+ " in spot

Poplar $8 N 75^{\circ} 5' E$ 41.02 feet to cross in spot near base H

Beginning at a point 99.20 feet E. of NW Cor. Sec 3-139-29 we chain carefully PB line South Glen Smith and Curo 180 foot Chain H+B line at double Curo H+K at 1780 enter lake SW & E @ 2180 feet to lake bear E + var.

@ 28. chains (180 ft ch) + 118.50 feet = 5158.50 intersect iron corner to sections 3, 4, 9, 10, 139-29.

5158.50 feet my chain =

5138.10 " Galt chain on

20.40 " too long

Correcting back.

At pin N:22 So = 3960 south we chain North 126.74 feet to a point 1325.24 feet North of SW cor 3-

Then West 25.49 feet where we

1285

Galt W Curo

139-29 Mar 16-1912

D (73)

place the true $1/16$ post with B.T.S.
as follows $8^{\circ}30'00''$

Paplar 5S $39^{\circ}16'W$ 70.00 feet

" 5N $62^{\circ}55'W$ 57.35 " 1st spot

This $1/16$ is 3833.26 ft S. of NW Cor
and 1325.24 ft N. of SW Cor Sec 3.

To put in $1/4$ bet Secs

3 and 4. 139-29 Begin at stake

N=14 being 2520 feet South Then

Chain North 11.98 feet to Hut

2508.02 South and 2650.48 North

Then West 50.97 feet where we place

a wood stake for the true $1/4$ corner
with new bearings as follows $9^{\circ}45'00''$

GP 103 $33^{\circ}11'W$ 33.80

Pop 6N $48^{\circ}18'W$ 24.10 ft.

Correcting South

at a point 286 ft N of iron mark at SW Cor 3

we chain west 4.54 feet set stake wood Cor

472 N goes W 9.08

780 ft goes W 13.62 feet

974 goes west 18.20 feet

W. Correction = .01923

" 285

N " = .00397

John W. Carr

139-29. Sunday Mar 17th 1912

Working for Coors Co. H & B Transit 180 ft
chain double centre hubs pb line
Smith & Curo chaining

Oscar Gooden, Herman Dillman
Hosey King a man.

Cut line E from iron @ SW Cor Sec 3-
and from $1\frac{1}{16}$ N of SW Cor run E cut
both lines @ 8° for

Smith & team Dillman & Curo
go to the $\frac{1}{4}$ Cor bet Secs 10 & 11-139-29.
Govt notes call for: - "P1 E at 5"

NP 20 N 87° W 354 lks = 233.64 feet

We find the stump of the old bearing tree
from which we set the $\frac{1}{4}$ cor @ $9^\circ 50'$ for
set wood stake and new B.T. sig @ $9^\circ 50'$ for
NP. 15 S $17^\circ 17'$ W 160.60 feet to spot

" 15 N $64^\circ 46'$ W 123.34 " " "

Transit on new $\frac{1}{4}$ post back sight half
a mile south at flag placed at time
Corners to Secs 10, 11, 14, 15 - 139-29
Vernier @ 0.01 ^{$9^\circ 50'$} lum telescope on old B.T.
head of stump. Vernier reads N 87° W
233.64 feet to face of B.T. showing that
I am using the true sec line as a
meridian.

(F)

75

Going 5 1/4 bit seas 2 and 3-139-29
we ran south on 7°45' Jan

John W. Ellis

285

Monday March 18-1912

To put in the lost corner to Secs

2, 3, 10, 11, 13429 Glen Smith & Cass Co

John Dorey, Hasey King, Oscar Gooden
a man P.B. line double can hubs 180 ft.

Begin iron mon @ corner to Secs 3, 4, 9, 10,
run East 8° 00' @ 180 feet set pin in old
main road bears NE + S

420 pin on sea wall. 440 enter Point
Lake bears NE + SW At this point
Gout notes call for M.C. N-56

Black Pine 9364' W 10 lbs. BP 6N 66W 21 lbs. gone
@ 540 set pin N-3 on ice. @ 1224 snow hut
on ice: 1929.60 snow hut on ice:

2750 snow hut on ice: 2770 L. Point
Lake bears NE + SW at 2843. Hut on
point: 2935 enter bog NW SE

3220 L. swamp NW SE: 3238. Hut
on point coming from the North

3240 set pin N-18. @ 3270 enter same
swamp NE + SW: @ 3600 L. swamp

N + S @ 3894. 85 Hut @ 4311. 40 Hut

4320 set stake N-24. @ 5097. 50 Hut

5114 main road N + S. N-7° 33'

@ 5898. 40 Hut @ 6660 road N + S

6675 enter swamp N + S

(H)

13929, Sec 3.

77

at 7332.50 Hdb 2 & swamp lake

@ 7343 cross wire fence about 15 feet south of NW cor of fence

@ 7380 set pin N=41. @ 7425.60

snow hut @ 7740 set pin N=43

@ 7774.80 true $\frac{1}{4}$ bet ses

sets North 30.50 feet

@ 7788.80 a post set by Campfield bears North 18 feet

The corner I have just set is 12.70 feet North of an E & W wire fence

The $\frac{1}{4}$ corner set in the NE corner of the fence bears $S 47^{\circ} 45' E$ 19.25 feet from my true $\frac{1}{4}$ cor @ 8' cor

US notes call for.

Black Pine $55^{\circ} 32' W$ 98 = 64.68Aspen $41^{\circ} 49' E$ 29 lbs = 19.14 feet

We find both trees roots of aspen and J.P. still standing green plainly marked from which we set true corner

Someone has evidently moved Campfield's stake from its original position.

78 Mar 18-12

Sec 3-13929

(1)

Begin @ $\frac{1}{4}$ cor bet Secs 2 and 3
139-29 previously established by Cues
we run South @ $7^{\circ}45'$ on following new
road: @ 1600 leave road which runs East
@ 1675 enter open bog bears E + SW
2300 L.V. bog 2470. Hat
2500 enter road bears S and NE
@ 2520 set pin N=14. @ 3300 L.V.
road bears N + SW @ 3340, 80, snow
hut @ 3450 enter open bog E + W
@ 4050 L.V. bog bears N + SE
4180 road is 10 feet west bears
NW + S. 4370 pin No 24
from hut E of road @ 5220
set pin N=29 + 130.20 = 5350.20
true $\frac{1}{4}$ set's East 33.20 feet

⑤ Dec 3-189-29

79

1100 ft. E. Lake

3

1337.55
2675.10
1337.55

2649.90

7774.80

5124.90

2675.10

285

80 (K) 139 29 Cass Co

March 19-1912

Glen Smith and Lewis Oscar
Gooden, John Borey, and Cured
workhall day for Cass Co Hot Springs
180 foot lake

We continue the center line of
Section 3- west without chaining
and at approximately 5200 feet
the line $\frac{1}{16}$ between Sections 3 and 4
bears South 30.50 feet

Correcting back to the
 $\frac{1}{4}$ on E. side of Sec 3-139 29
Hot Work goes 3 feet
" " " 3 " to the
line E & W center line and road
center

Beginning at the New $\frac{1}{16}$
Corner North of Corner to Secs 3, 4
9 and 10. - 139 29 we run East
on 8' bar @ 1850 ft on red
main road NE & SW.
at enter lake

" 20 "
" enter marsh
" 20 "

at approximately 5200 feet line
 $\frac{1}{16}$ sets North 23.50 feet feet

285 285

Correcting back
Hike ft E goes South

Line 1st time 1/16

To put in the Corner to Seco

2, 3, 10, 11, 13⁴-29

From Hub 5097.50 we chain East 27.40
to Hub 5124.90 East. As the Gout notes
do not show the distance across
Ponto lake and do show the distance
from the corner East to the 4x post
to be 2049.90 feet we take the
Gout chain for it and fix this
corner 2049.90 west of the 4x post
which fixes its position on the
E-W. Then run N 24.70 ft
to the line corner.

at pin 14 being 2520 feet south
we chain south 155.10 feet to hub
2675.10 which fixes its position
as to N + S then run E 13.40 ft
to base corner to run 2, 3, 10, 11-13429

Pls dig: J.P. 6N 82° 48'E 53.60
N P 14S 41° 26'W 75.75

N 145 41° 25' W 75.75

SW cor stone of school house entrance bears
N 46° 5' E 102.10 ft @ 8° on Supper B. + 2 lodging
with Herman Hillman 75 paid!! 285

82

139 29.

(M)

March 20 - 1912

To put in the $\frac{1}{16}$ North Corner to me
 2-3-10-11-139-29 From pin N^o 7
 being 1260 to the chain south 77.55 feet
 to 1837.55. then East 6.70 feet
 where we place a post for the $\frac{1}{16}$ corner
 with bearings as follows
 cross in 3. foot w/ stump bears
 S $59^{\circ} 22' W$ 48.75 feet
 GP 6 N $25^{\circ} 30' W$ 90.40 feet
 turned from true line @ $8^{\circ} 40'$

Correcting E and W. end line of
 S. $\frac{1}{2}$ of line 3-139-29

at a point of approximately 5200
 East the line $\frac{1}{16}$ sets N. 23.50 ft
 at a point 1260 feet E we chain
 N. 5.70 feet

at 2215 we run N 10 feet and set
 road corner BTS viz (Sta 1)

GP SE 29.40 feet

Pin stump NE 24.45 ft

N $35^{\circ} E$ 150 ft (Sta 2)

N $55^{\circ} E$ 150 " (Sta 3)

N $64^{\circ} 45' E$ 270n (Sta 4)

N $76^{\circ} E$ 217 feet (Sta 5)

" 285

139-29 (N)

(83)

Mar 20-1912

N 84° 27' E @ 197 cm of 10 foot ditch (Sta 6)

N 80° @ 1080 to angle point.

Thence N 58° 50' E down hill

@ 243 cm of 10 foot ditch N 80° (Sta 7)

@ 289.60 angle point Thence

North along E side of slough

@ 55 feet narrow neck of swamp

beats S & W & E

@ 115 leave swamp beat N 20° W & E

@ 708.50 inclined E & W cm line (Sta 8)

Thence East 954 ft 1-1/4 bet

beats 2 & 3 - 139-29 (To Sta 9)

Correcting E & W cm line

@ approximately 5200 west the

1/4 sets South 30.50 feet

@ 954 West all chain south 5.60

472 goes S 2.80

From here we change the
road line as given in pages 85
and 86

John Dorey, Oscar Gooden & Curio
work on survey all day; Glen Smith & Tom
go to Backus in A.M. for Perry and
work on survey in P.M. dinner &
overnight with Mike Smith

285

March 21-1912 Thursday
Glen Smith and Curo work all day
for C. Co.

I pay Mike Smith \$15.00 on
account of board and laundry
which may be more or less than
what I owe him but have not got
time to figure it up till I get home
to W. A. K.

Glen Smith & I drive with his
team to Sec 3-139-29 where we
run a change in the road as
follows:

From Sta 6 we "back up" 50 feet
so that Sta N=6 is 1030 ft from No.
5 and from here we run to a point
27 feet South of Sta N=7. Thence
East to Sec line
from Sta 6 run N 67° 30' E 325 ft
to Sta No 7. Thence East
ft to sec line

"285

Jahn W Curo

(A)

(87)

Pine River Minn

31-138-29

May 27th 1912

Working for Geo Moulster on
 Subdivision of SE $\frac{1}{4}$ Sec 31-138-29
 and platting the NE of SE $\frac{1}{4}$ into:
 lots and blocks to be known as

2nd Walker at 9.35 A.M. dinner at
 Barclay Hotel Pine River
 P.M.

John Kline, James Ingraham &
 Geo Moulster and I look up corners
 Kline & Ingraham Cat a line
 South third cor. of SE $\frac{1}{4}$ of Sec 31.
 Supper and over night with
 Geo Eisenham

Todd is working for Pine River
 staying in the County he drove in
 in evening for iron monuments but
 the caps do not fit the posts and
 we order Webber and Hill to get
 caps to fit.

88) (B)

Geo Moulden

Pine River

May 28 1912

See 31-138-29 At the SE cor
of See 31-138-29 Goat notes call
for. NP 22 N 75° E 100 lks
" 24 S 85° W 25 "

" 18 S 87° E 66 " (= 43.56 ft)

BP 6 N 7° W 153 "

We find a 1-inch iron pipe driven by
Old Man Hanson who pulled up a
hut previously established by me
for the true Sec corner set from
one old S.E. bearing true slatrup
which is still standing plainly marked

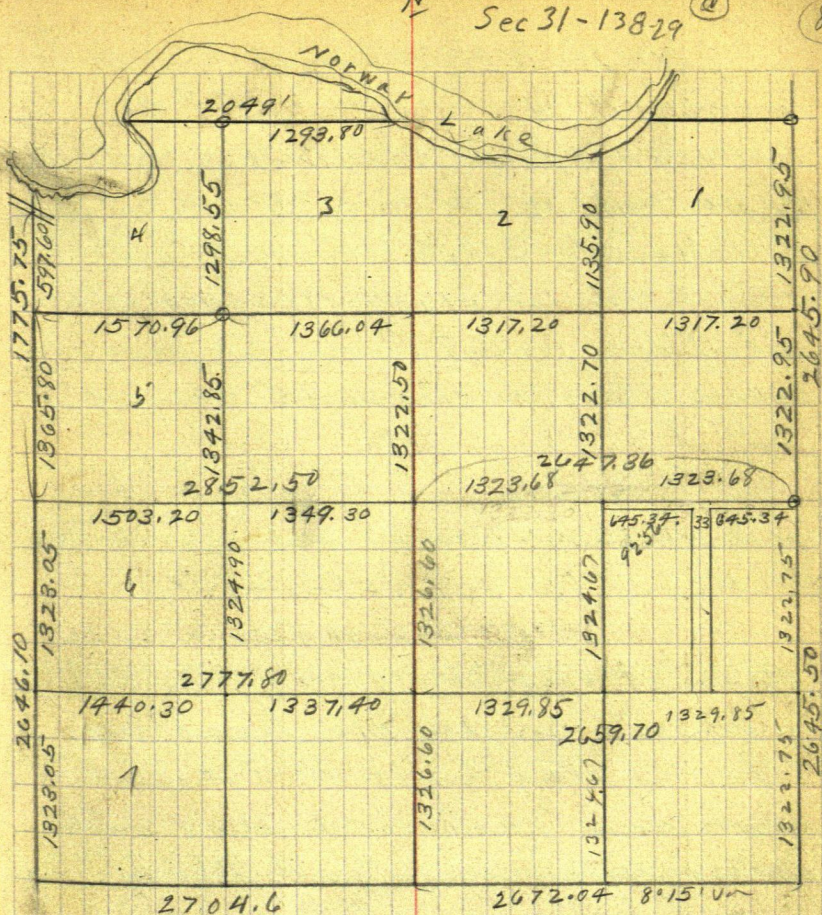
I check up on the iron and
find that the measurement brings
me to the west edge of the 1-inch
pipe which I mark for the true corner
Courses check perfect @ 8'15" V
using the South boundary as E & W
focused theodolite on flag set at
1/4 corner on S. side

At the 1/4 on South side of See
31-138-29 Goat notes call for:-
NP 155 8° 30' W 83 links
BP N 40° E 75 "

I find a cement post 6 inches in
set for true 1/4 cor which checks out from
the old S.W. B.T. which is still there.

N Sec 31-13829 (2)

84



John W. Curro
 Harry S. Todd
 John Kline
 James Ingraham
 Geo. Moulster
 A. W. Moulster

May 1912

N	28	29	30	31
1	2	3	4	5
PM				
0 1/2				
1/2 1				
1/2 1				
1/4 0				
0 1/4				

May 28- 1912 Continued

Beginning at $\frac{1}{4}$ Cn on S side of Sec

31-138-29 focus theodolite on line
SE Cn and run E. on $8^{\circ} 15'$ S on

HOB transit 300 ft Chi steel tape

300, 600, 900, 1200, 1500, 1800, 2100, 2400,

set stakes. @ 2672.⁰⁴ interest line

corner. Jim Ingraham + I chaining

perfect P.M.

Bill Moulton and I correct back
and at 1336.02 set a hub and lock
for the line $\frac{1}{16}$ W. of SE Cn Sec 31.

Todd, Ingraham, + Kline

Begin at a point 10.02 feet west
of line SE Cn Sec 31- focus theodolite
on a flag set by Bill Moulton
at the iron $\frac{1}{4}$ Cn on E. side and
run north along edge of field to
avoid cutting small pine trees in
Hauzons fence.

@ 300, 600, 900, 1200, 1500, 1800, 2100,

2400 set stakes at 2400 + 245.50

= 2645.50 interest iron ^{the} corner

Todd + Ingraham chaining close P.M.

Correcting back to 1200 chain N.

122.75 to hub 1322.75. Thence E
5.01, where they place a hub + lock for

for line $\frac{1}{16}$ N of SE cor Sec 31-138-29.

At the $\frac{1}{4}$ on E side of Sec 31, we find a 2×48 inch capped galvanized iron pipe set in a bed of cement by A. W. Moulster at a point previously established by me for the line $\frac{1}{4}$ cor from the old Gout bearing lines.

Beginning at a wood hat & lock set by A. W. Moulster for the $\frac{1}{16}$ in cor of E. half of Sec 31, he and I run so on cut out line

300, 600, 900, 1200, 1500, 1800, 2400 set stakes

@ 2400 + 249.20 = 2649.20 the $\frac{1}{16}$

N of SE cor Sec 31, sets West 8.48 ft

Moulster goes home at 4 P.M.

Todd & I correct North:

at 1200 we chain to 124.60 to 1324.60

then West 4.24 ft and drive Hat &

Lock for line $\frac{1}{16}$ in cor of SE $\frac{1}{4}$

of Sec 31, 138-29. Quit for night

Todd get supper & over night at Agers hotel. I am staying at Bordley.

We use 2 H & B transits & 2 300 ft chi tapes.

John W. Card

Geo Moulster Township
Sec 31-138-29

Pine River May 29th 1912

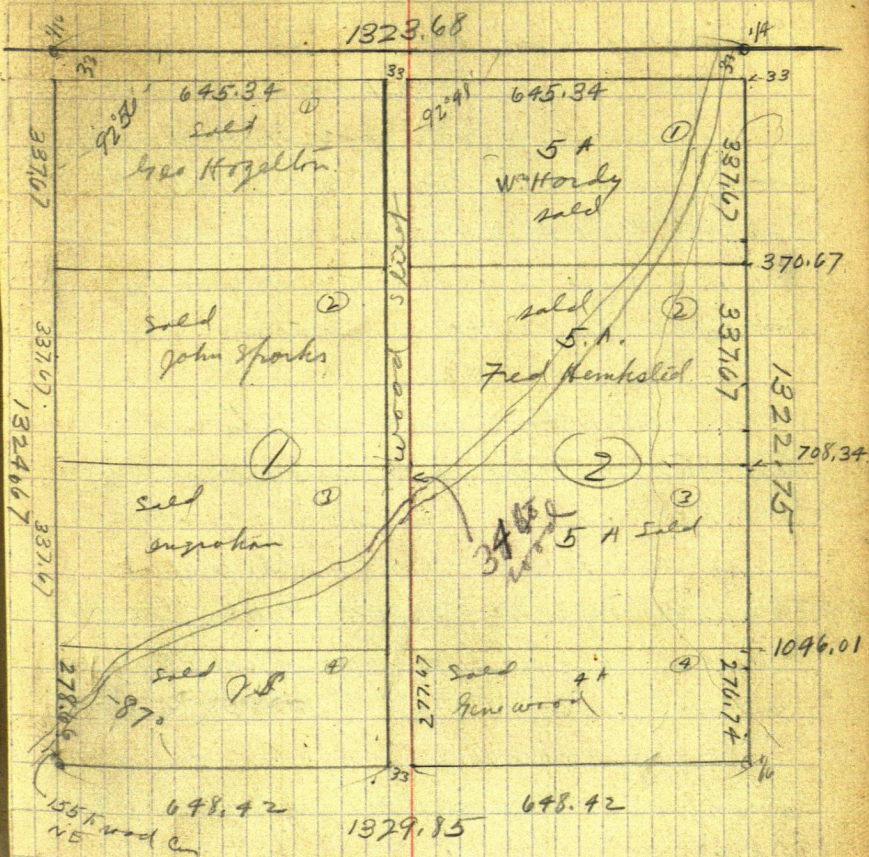
Harry S. Todd 300 ft Chain and
K+E Transit I have 300 ft tape
K+B Transit; Curo + John Klein Ch.

John Sparks and James Ingraham &
Working for Geo Moulster in survey of a
Township Todd Township

Transit on temporary $\frac{1}{16}$ hut in Cen
of SE $\frac{1}{4}$ Sec 31-138-29 focus
telescope on line $\frac{1}{16}$ E. and set a double
center a quarter of a mile west which
checks out .30 ft North of the 6 inch
cement $\frac{1}{16}$ post set by Moulster in
Cen of South half of said section
we set our Hot .15 ft South being
the true center of SE $\frac{1}{4}$ of the section
with bearing trees as follows

JP 12 N $18^{\circ}58'W$ 22.26 ft to lock head
" 10 S $77^{\circ}33'W$ 27.29 " " " "

both trees marked B.T. with timber
scribe Courses turned from line
west boundary of the forty



Moulster Townsite 31-138-29

Pine River May 29-1912 Continued

Beg @ iron $\frac{1}{4}$ on E side of Sec 31
 138-29 run west at 1323.70 Tochin a
 hub set for $\frac{1}{16}$ cor by A W Moulster
 at 2647.34 we are .10 ft N. of
 cen of 6 inch cement post set by
 Moulster for the true center of Sec 31

Correcting back we set the
 lock ^{1323.70} .05 South and .02 E to 1323.68
 the true $\frac{1}{16}$ corner in center of E & W
 graded road. at which point
 I set the transit: Focus transit
 South on true $\frac{1}{16}$ corner Turn tele-
 scope to left and focus on true $\frac{1}{4}$ cor E
 angle reads $92^{\circ}56'$ H + B transit
 Run South on true line:

at 33 feet set iron buggy axle stub
 for N.W. Cor of Block 1.

At 370.67, set iron buggy axle stub
 for SW Cor Lot 1, Bk 1.

At 708.34 set iron axle stub for
 SW Cor Lot 2, Bk 1.

at 1046.01, set iron buggy axle
 stub for SW Cor Lot 3, Bk 1.

at 1324.67, intersect $\frac{1}{16}$ cor
 being SW Cor of Lot 4, Block 1.

140-30- Webb Lake, Co

Road Sec 13.

Monday July 7-1913

Copy necessary notes all day in Walker.

Tuesday July 8-1913

Curo- JB Spencer- Emma Spencer

Ls Walker 9.37 AM. Via M&N RR

Ar Hackensack 10- AM

RR fare 40¢

Curo- JB Spencer- Emma Spencer- Effie Ritchie

Ls Hackensack 11- AM

Via team of W.J. Spain with Harry Spain driver - Survey outfit and 6 iron section corners

Ar Wm Morris' farm 12. M.

Team goes back to Hackensack lake Morris' row boat and go across to Spencer's cottage on Goat Lake N^o 4 of Sec 12-140-30 on west side of Webb Lake- where the girls get us a lunch

John W Curo

96

Wish Lake
140-30② July 8-1913
could

P.M.,

at M.C. N^o 2 - 140-30 u.s. notes call
for: - B.P. 8526°W 142 links

We find the tree standing green plainly
marked from which we set a hub and
look for line M.C. N^o 2 @ 9° 0' on
chained from face of BT marks
place red flag behind M.C. and
Run West on 9° 0' on

across Morris' clearing

H & B transit double line hub

Cure transition & Chaminar

J.B. Spencer Chaminar 300 ft
Chicago steel tape (new). plumb-bob
chain. Alfred Mattson a man

@ 100 ft cen of so point of marsh
100 ft wide: @ 300 stake. @ 500 stake
on raise: @ 600 ent N point of
another marsh - @ 700 to same
thence up big hill: @ 800 stake
on side hill: 1100 hub. @ 1106.40

Morris's wire fence runs N & S.

enter small poplar 1241. hub
on top - hill is round and
I cannot see red flag at M.C.
but I look right on 2" poplar

John W. Curo

July 8-1913 Contd.
140-30

③ Webb Lake road 97

line a mile East already "spatted"
on East side of Webb Lake & continue
west - needle still reads 9000
then a down slight slope:

at 1400 stake + 175 set stake
1575 enter N. end of wet slough
then get Mattson to haul the chain
across so as to take a full 300 ft
chainage - Spencer goes around
N. end and @ 1800 L. swamp
@ 1875 set stake: + 125 set hub 2000.

fifteen feet E. of 1800 wagon road

Quit for night. Mattson goes
for more help and gets full day

Over night at Spencer cottage

John W. Curo

Wednesday July 9-1913

Begin at Hub 2000 continue west: Curo
+ Mattson - ch. Wm Morris + Cliff
Hanson & Spencer assists

@ 2015 cross road NTS: @ 2125 enter
wet swamp 2300 stake: 2323.20 ft
Temporary corner to Secs 11-12-13-14
140-30 the line Sec Cor sets .50 of
a foot West and 7.50 N.

At 2323.70 line Cor sets N. 7.50

At this corner to Secs

11-12-13-14-140-30 U.S. Notes

Call for a stake and following
bearing trees:

Spencer 3 N 42° E 25 LKS Sp. 4 S 47½° W 18 LKS
" 4 N 36½° W 15 " " 4 S 30° E 22 "

We find the old stake set in moss and
water and the stumps of all four old
bearing trees plainly marked

The distance between the NE & SW
trees is 1 Link short and the
distance between the SE and NW
trees is only one inch (1 in) short
and by a proportion of the distance
corner exactly in Cen of old post
which we take up and drive in
its place a 2½ inch dry tam

John W Curo

July 9-1913
Continued

(5)

140-30-
Webb Lake

99

pole 10. put long drove solidly into the swamp over this pole we force an iron section corner being a galvanized iron pipe $2\frac{1}{2}$ in diam by 4 feet long capped on top and drove until it sticks one (1) foot above swamp level, for the true corner to sec 11-12-13-14-140-30 solidly driven and cannot be pulled up no bearing trees near but I place ball red flag on north side of iron sec cor for NW line.

Correcting East

at 1100 we chain East 96.58 ft to 1003.42 west, then north 3.24 ft where we place the true iron $\frac{1}{16}$ post at the NW Cor of Goat Lot No 1. of sec 13; being the SW Cor of Goat Lot No 6. of sec 12. 140-30 - we set a galvanized iron pipe $2\frac{1}{2}$ inches thick by 4 ft long capped on top - as the ground is solid clay we dig a trench 2 ft deep, then drive the pipe until it is only 2 inches above the level on East brink of big hill. then fill the trench full of stone and clay and
Jabm W. C. W.

place red flag directly over iron.
 From the MC N=2. west to Cor to sec.
 11-12-13-14-140-30 is 2323.20 ft
 U.S. Chain and is 2323.70 feet my
 chain on .50 of a foot long which
 is mighty close and the iron
 $\frac{1}{16}$ in is set by proportionate chain
 from this iron $\frac{1}{16}$ the land
 lays fine south or west for road
 purposes but Eester north you
 could not get down off the big
 hill.

Looking a mile south we see what
 appears to be the opening in the
 timber along the Honberg road
 and run south on $8^{\circ}40'$ on rough
 chain across Morris field
 Spruce + Mattson chaining

@ 300 end in corn field 100 ft E of
 N=5 fence: 600. 900. stake in corn
 about 1050 to same about 75
 ft E of wire fence. 1200 stake cut
 poplar trees: @ 1500 stake in N
 edge of Mattsons road, 1800 Hub
 both right on red flag and set
 stake N=1500 with transit.

John W. Curo

July 9-1913
Continued

⑦ 140-30
Webb Lake

101

@ 2000 cut east edge of meadow 2100 stake

2300, enter solid point from E cut

2400 stake E. end of meadow 2675

to meadow @ 2700, 2900, 3000 stakes

3200 enter cut tails. 3300 stake in

deep water in cut tails 3525 to

cut tails 3600 small hub. 3700

main wagon road N10°E + S10°W

3900 Hub. 3925 cross wire fence

E. & W. enter clover + timothy

about 60 ft E of gate

@ 4200, stake in hay 60 ft E of W. side

4500 stake to field 4800 stake

5100 stake. 5258 Cen of Honberg's

road bears west 98.50 ft

but at about 5250 my old 1 1/16 post
set 5 years ago bears west 98.50 ft

This mile, has been only roughly
chained but is probably only

2 feet off. Spencer goes home

on P.M. train. Curo - Morris -

Malson + Honson work all day -

Over night at Spencer
cottage John W Curo

Thursday July 10-1913

After setting all of the measure stakes with the transit so as to have them on the straight line we correct up the line thro the West half of sec 13 as given on page 103. and set good solid hubs drove flush and tall stakes marked "true line" every 300 feet.

We pull up the wood hub at M.C. No 2-140-30 and put in its place an iron monument being a galvanized iron pipe 4 ft long by $2\frac{1}{2}$ inches thick capped on top and anchor rod thro bottom set $3\frac{1}{2}$ feet into the ground on lake shore with reads of big stone and sand piled from bottom of dug out hole to top of iron making a mound six inches high at which point we again set the red flag.

Beg @ iron the west of this point we back sight south on corrected line and run compass line $N 70^{\circ} 40' 00''$ along west side of Lot 6. sec 12-140-30. @ 100 ft top of big hill: thence a drop of a hundred feet down the big hill to the swamp. @ about 600. feet of

(9)

11-12-13-14
140-30

103

(11)

old 2

(12)

8040

old 8

8040

(14)

(13)

10 3 96 502

20 6 " 11.24

30 9 " 16.86

40 12 " 22.48

50 15 " 28.10

60 18 " 33.72

70 21 " 39.34

80 24 " 44.96

90 27 " 50.58

100 29 " 54.38

110 30 " 56.20

120 33 " 61.82

130 36 " 67.44

140 39 " 73.06

150 42 " 78.68

160 45 " 84.30

170 48 " 89.92

180 51 " 95.54

5258.98.50

104 July 10-1913
Contd

(10)

140-30
Webb Lake

big hill - enter wet open bog which ex-
tends about $\frac{1}{4}$ mile NW. @ about
1000 feet L.S. bog then up second
hill: at about 1300 top of second hill
then over rough land north

Mr Morris sets stick on second hill
and attempts to cut line north to
intersection of Webb Lake but it
looks as tho the line would not
hit the lake for $\frac{3}{4}$ of a mile so he
quits this line and we go south

Cliff Hanson walks to J.E. Krakes
place and Mr Krake sends word he
will be up at 2. P.M.

I take dinner with Mattson

P.M.

Mr Morris cuts the brush along both sides
of a fence running $\frac{1}{4}$ mile East of Honberg
Co road, Mattson - Hanson -

Krakes & I go west along Hack-
Woman Lake Road (Krakes team)
to the corner to Secs 15-16-21-22

140-30 where U.S. notes call for:

WP10 N 75° E 20 LKS

WP20 S 70° E 17 LKS

" 15 S 75° W 32 "

WP20 N 45° W 46 LKS

(= 30, 36 feet) these stumps were all

July 10-1913
cont

⑪

140-30
Webb Lake

105-

here and plainly marked when I surveyed it 5 years ago but today only the stump of the red tree stands from which I set. The true section corner being a galvanized iron pipe 4 ft long by $2\frac{1}{2}$ " thick set at its full length in north wheel track of main E & W graded road.

Soil is solid clay so we dig 18 inches and Mattson gets a big stone and drives the pipe the rest of the way, flush with the comb of road grade. Then sets two big stones in the trench and throws up a light mound of dirt - we place red flag @ true iron corner to Secs 15-16-21-22-140-30 and chain to new bearings as follows:
WP. stump 24 N $67^{\circ}06'E$ 24.25' to lock in spot. Nail in new spot on old WP BT bears
N $46^{\circ}22'W$ 30.25 ft Meridian assumed from graded road looking East.

Beginning @ iron corner to Secs 15-16-21-22-140-30 Curro & Mattson chain East along graded road almost perfect chain 300 ft tape: @ 2676 a big stake marked "A" sets south 4 slips. @ 2700 set

nail in road; @ 2707.50 West line of
Mr Pae's new fence runs South

@ 5317.00 East line of Mr Pae's new
fence runs South on

I believe he has got his fence 40
feet too far East.

By @ 5317.00 being in line
with Mr Pae's fence we call it
Sta 0.0. and chain East along
graded road;

at 3680 cross old N&O wagon
road that was once 3720 ft
far East of the corner to Secs

14-15-22-23 which shows that
Mr Pae has his fence too far East

@ 5262 set small stake in line
with Bob Stewart's fence running
South. @ 5266.60 Billy Donald-
son shows me an old stake which
he digs up out of the road where
he says I once put the line cor-
to Secs 13-14-23-24 - 140-30
five years ago.

By @ Billy D's stake at 5266.60
we chain East 1339 ft to a $\frac{1}{16}$
stake at Honberg's road.

July 10-1913
Continued

(13)

140-30
Webb Lake

107

We chain another quarter of a mil. East along fence line moved out by Mr. Morris but find none of my old hubs.

My old Notes dated July 12-1907 (see page 18 of this book) show that 5 years ago I established the true corner to Sec 14-15-22-23-140-30 from old bearing trees and run East and at 3720 crossed old NPS road. Chaining East today from Paes fence I find that the old road comes at 3680 showing that Paes fence is 40 feet East of where I set the true corner five years ago.

and the distance to stake at Billy Donaldson's corner to Sec 13-14-23-24 was 5310.36 ft and today I find it 5266.60 ft showing that Paes fence is about 44 feet West East. But as I may not have located the center of the old road just the same today as I did 5 years ago the stake at Billy's is probably a more profitable point to chain to than the old road.

Webb Lake Road Survey 140-30

July 1913

	S.	M	T	W	Th	F	S	S
	7	8	9	10	11	12	13	0
John W Curo	1	1	1	1	1	1	0	
J B Spencer	0	1	1	0	0	0	0	
W. J. Spain	0	^{7am} 9.30	0	0	0	0	0	
E. Ritchie	0	1	1	1	1	1	0	
Emma Spencer	0	1	1	1	1	1	0	
Alfred Mattson	0	1	1	1	0	1	0	
Cliff Hanson	0	0	1	1	0	0	0	
W. Morris	0	0	1	1	0	0	0	
J E Krake	0	0	0	^{7am} 9.30	0	1	0	

J E Krake's time is to be paid by Birch Lake Twp
 Birch Lake Twp will pay Alfred Mattson for one
 day July 12-1913. \$2.00. Carr Co pays the
 rest

Birch Lake will pay Curo for one day and
 Carr Co pays the rest.

Saturday July 12-1913

Still raining a little but we will have to work to get finished up.

Curo & Mattson go to the old $\frac{1}{16}$ stake at North end of Honke's road at $\frac{1}{16}$ cor E. of Cor to Secs 13-14-23-24 140-30. Curo set this old $\frac{1}{16}$ stake just 5 years ago and I believe it is just where Curo set it - Mattson says he thinks he moved it north in order to grade the road. but it is my opinion he did not move it at all but graded the road on my cut-out transit line. In order to hold the point we take new bearings as follows

Fence Corner SE 21.82 feet

" " NW 20.60 "

Tel' Pole NE 22.65 " to side of port.

From my old limp cor port 13-14-23-24 we chain west along road at 1302 a white rag on a pole sets north and @ 1350 an old stake sets So of the road and Billy Donaldson's fence runs north but neither of these are the line

July 12-1913 Continued

J. E. Krake comes with his team and we all drive west to Cor of Secs 14-15 22-23-140-30 where US notes call for

NP 24 N 9° E 56. LKS (= 36.96 ft)

NP 12 S 15° W 70 " (= 46.20 ")

NP 30 N 62 1/2° W 222 LKS (= 146.52 ft) (146.92 T. spikes)

I found all of these old bearing lines 5 years ago from which I set a wood stake for the line corner and run East, leaving a 2 inch - six foot pole for a back shot

Today we find the E & W road graded - my old corner posts gone and only a burned hole in the ground where the old SW. B.T. once stood but the old NE & NW B.T.

stumps are still here but burned a little. J. E. Krake, Alfred Mattson and John W. Curo all agree on locating the exact point on the side of the old B.T. stump from which to chain and we set the line come by flat chain from face of the old stumps after which they stand perfect for course we set an iron Section Corner being galv-

112

(18)

July 12-1913. Contd140-30
Wab Lake

anvized iron pipe $2\frac{1}{2}$ in diam by 4 ft long - capped on top - anchor rod thru bottom and set its full length in the ground near south wheel track of road this is the true corner between 14-15-22-23 140-30. in digging the trench we found the point of my old back shot 6" west of the point for true corner.

We call out Mr A. Pose and show him that he has built his new NTS fence, 41.00 feet to far East

He is so glad to get the true corner he does not care about his fence and says he will gladly change it.

Going half a mile West the old bearing lines are gone so I work the transit on line between a red flag at each end of the mile and from spike 2700 E, I chain West 62.00 feet to 2638.00 at which point we set an iron monument for the true $\frac{1}{4}$ corner between sec 15 & 22 being galvanized iron pipe 4 ft

long by $2\frac{1}{2}$ miles thick capped on top and anchor rod thro bottom at its full length in the South wheel block - This is the line $\frac{1}{4}$ corner bet Sec 15 & 22 and is half way between the E & W mile corners and exactly on line it comes on the top and East slope of long hill.

in June 1913

Harry S Todd and Andrew Horde
 Begun at the $\frac{1}{4}$ corner on the South side of sec 34 and run 3 mile of road line north for Birch Lake Twp but could not correct the north mile because Curis was the only man who could locate the $\frac{1}{4}$ cor bet Sec 15 and 22 - 140-30 and now that I have located the $\frac{1}{4}$ corner and set it in iron I correct up Todd's mile of line as follows.

Assuming the mile of line to be 5300 ft long we find that where it intersects the Hockensack - Woman Lake road the $\frac{1}{4}$ bet 15 & 22 sets East 32 feet.

As Todd did not mark his hubs or stakes we will have to re-chain the mile and

(20) July 12-1913. Cont'd 140-30

use Todd's back shot slates as a line base line from which to correct the line with our eye and lap.

Curo & Mattson walk a mile south to the place of beginning at $\frac{1}{4}$ set 22 & 27 and chain north 300 feet then East 1.80 feet and set tall slake marked "True Line - Road Cut" and do the same thing at every 300 foot chain length as follows

@ 300 Chain East 1.80 set slake "True Line"

600	"	"	3.60	"	"	"	"
900	"	"	5.40	"	"	"	"
1200	"	"	7.20	"	"	"	"
1500	"	"	9.00	"	"	"	"
1800	"	"	10.80	"	"	"	"
2100	"	"	12.60	"	"	"	"
2400	"	"	14.40	"	"	"	"
2700	"	"	16.20	"	"	"	"
3000	"	"	18.00	"	"	"	"
3300	"	"	19.80	"	"	"	"
3600	"	"	21.60	"	"	"	"
3900	"	"	23.40	"	"	"	"
4200	"	"	25.20	"	"	"	"
4500	"	"	27.00	"	"	"	"
4800	"	"	28.80	"	"	"	"
5100	"	"	30.60	"	"	"	"
5300	"	"	31.80	"	"	"	"

rough chain & correction

(21)

140-80

115-

Wibb Lake

July 12-1913 Continued

Curo - Krake + Mattson work

Krake goes to Morris and gets survey outfit then takes Curo to Hook

where I catch 4:19 PM train to Walker

RR fare 40¢

Over night at home in Walker

Gilia Road, 140-30

Working in Birch Lake Twp
Sunday Nov 1st 1914

Get orders from Birch Lake Town Clerk to make road survey so I finish up Hiarn Twp work and have Victor Martin take Sand Curo to Hack in his launch. Supper with Martin. Stay over night with Charley Garrity.

No charge to Birch Lake Twp for my time but they must pay my board. Roy Bryant.

Monday Nov 2nd 1914

John W. Curo, Frank A. Stonner and I go to the witness cor of Secs 16-17-20-21-140-30 which Curo and Stonner pronounce "O.K." and run a compass line North. Then go get John Bergman one of the Town Board who wants us to wait till Wednesday before getting the survey crew as tomorrow is election day. Roy Bryant.

Nov 1914

Time Sheet Working For Birch Lake Tap

140-30

54000

SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Roy Bryant

0 1/2	0 1	1	0	0	0	0	0	0	1	1/2	1	0	0	0
-------	-----	---	---	---	---	---	---	---	---	-----	---	---	---	---

J. E. Evans

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

J. W. Ows

0 1/2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---

F. A. Downer

0 1/2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---

C. Giles

0	0	0	1	1	0	0	0	0	1	1/2	1	0	0	0
---	---	---	---	---	---	---	---	---	---	-----	---	---	---	---

Johnson

0	0	0	1	1	0	0	0	0	1	1/2	1	0	0	0
---	---	---	---	---	---	---	---	---	---	-----	---	---	---	---

Charles Henry Board Bryant

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Time Sheet Continued on Page 125-10)

Of this book

118

140-30

③

Brick Lake

so I agree to lay up, but Brick
Lake must pay my board

Tuesday Nov 3rd 1914

Election day No work.
Ray Bryant

Wednesday Nov 4th 1914

We are to Survey $1\frac{1}{2}$ miles
of Twp road Beg @ Cor. to 16-17-
20-21. 140-30 Thence North $1\frac{1}{2}$
miles to $\frac{1}{4}$ Cor bet Secs 8 and 9
Thence East 1. mile to $\frac{1}{4}$ bet
9 & 10-140-30

We go to the corner to Secs
16-17-20-21-140-30 where OS notes
call for

Wit Cor North 30 Lks.

NP20N34E 94 Lks

NP20N55W 103"

We find an old stake pre-
viously set by Donner for the
true Wit Cor. We do not
stop to check it up but from
the old post we run North
on 10° var. without chaining

Ray Bryant

at about 500 to 800 feet we come
 to a little lake where we drive a
 hub turn 90° and run East 251.20
 ft and set hub at which place
 I set up transit. turn 90° angle
 and run North to a point about
 200 or 300 feet North of the $\frac{1}{4}$
 Cor and East of our original line
 where I set the transit over a hub
 and lock then turn 90° angle and
 run West 251.20 ft and set hub
 + lock on line from which pt I
 am unable to see back back
 over the line south. so I turn
 90° angle again and run North
 Quit for night

Also Transit 300 ft tape

Johnson and
 Gilia Cut brush
 Gilia flags and helps me chain
 Am boarding with

Charles Greely

Hoy Bryant

(120)

140-30 Birch Lake Twp

(5)

Thursday Nov 5 1914

Bryant-Johnson-Gillis

Continue out line north

at about one mile from place
of beginning the line corner to
Secs 8-9-16-17 140-30 set's East
9 feet

We did not run this mile of
line properly nor chain it but
will correct it and re-run it
again

At the $\frac{1}{4}$ bet 16-17-140-30
US notes call for (Rbt at H)

NP8 N 4 W 272 Lks =

NP9 N 53 E 100 Lks =

We find an old stake set
by Frank Wagoner but it does
not seem to check out with
the bearing lines so we pass it
it up for now.

At the Cor to 8-9-16-17
140-30 US notes call for

we find a big slate set from old
BTS. by WFA Lomax for the time
comes over which I set transit
and run about $\frac{1}{3}$ mile north and
quit for night

Over night with Charles Garrity

Friday Nov 6-1914

I am subpoenaed to appear
as witness on

Case in Brammer so take 10.01
AM train to Brammer

Meet Cues on train with Lomax
Cues gives me \$5.00

Over night in Brammer

Sat Nov 7 1914

All day in Brammer

Sunday Nov 8-1914

All day in Brammer take
night train to Hock

Monday Nov 9 1914

Arrive in Hock at 2.31 AM.

Sleep at Garrity's

122

140-30 Birch Lake Twp ⑦

Nov 9-1914. Continued

Went to work and found
 transit level broken. Took PM
 train to Walker sleep with Curo &
 Jackson

Tuesday Nov 10-1914

Lo Walker at 9-36 PM. Adjust transit
 and lay up at Garrity's hotel

Wednesday Nov 11-1914

Continue line North from Cor 15 Sec
 8-9-16-17-140-30 intersect Stony Lake
 without chaining.

At the 1/4 Cor bet 8+9-140-30

US notes call for

NW Birch 55 32 W 16 LKS = 10.56 ft.

NW Birch 45 62 E 19 LKS (or 79 LKS) = 12.54' 32 14

At MC. No 35 U.S. notes call for

NW p. 18 S 77 E 20 LKS = 13.20 feet.

We do not find them

Gilid-Johnson & I all day
 Still with Charles Garrity

Thursday Nov 12-1914

We work in AM but on acct of storm
lay up in PM - connecting up limit of line
bet 16-17-140-30 all get in 1/2 day

Friday Nov 13-1914

On acct of crock I re-run whole
mile of line bet 16-17-140-30

Saturday 14. - 1914

Did not work on account of
storm.

Sunday 15 - 1914.

did not work on account
of storm.

Tuesday 17 - 1914

Beginning at Sec Cor of 8-9-16-17
Chained $1\frac{1}{2}$ mile north.

Set trip $\frac{1}{4}$ Cor Commencing
at trip $\frac{1}{4}$ Cor run line EAST
@ 840 through Sec 9 about $\frac{1}{2}$ mile
and made pins for chaining
and quit for night.

Came in and had phone to be
in Brainerd @ 9 p.m.

On trial

Wednesday 18-1914.

Leave Hackensack on 1:19 Train
To Brainerd

arrive @ Brd. 4:00 P.M.

was in Brd all day Monday.

Thursday 19 - was in Brd until
2:30 P.M. took train to Hackensack.
arrived @ Hack. 4:19. Stayed with
Society.

Friday 20-1914

Beginning at point where we left
off and finished running line
to lake after chaining we found lake
in Sec 9 so we continued running line
East crossed lake and quit for night

Saturday 21-14

we finished running line

so we finished chaining
it and set temp $\frac{1}{2}$ hub.

we then walked down to Sec Cor of
9-10-15-16 and found old R.L.

we set Cor from R.L. and run line
North @ 82° 55' $\frac{1}{2}$ mile to $\frac{1}{2}$ Cor of 9. and
quit for night

Time Sheet Continued - Boat From Page 117-2 This Book
 November 1914 Birch Lake Trip 140-30

SUN 20 21 22 23 24 25 26 27 28 29 30

Roy Berglund 1 1 0 1 1 0 0 1 0

Expense

0 0 0 0 0 0 0 0 0

John H. Curo

0 0 0 1 1 1 1 1 1

Expense

0 0 0 28^{PM} 0 25^{PM} 0 0 0

C. G. Gilla

1 1 0 1/2 1 1 1 0 0

Oscar Johnson

1 1 0 1/2 1 1 1 0 0

N. A. Spain Team

0 0 0 1/2 0 1/2 0 0 0

Harold Curo

0 0 0 0 0 1/2 0 0 0

Cliff Hanson

0 0 0 0 0 1/4 1/2 0

Markin Hanson

0 0 0 0 0 1/4 1/2 1/2

P. E. Sawyer

0 0 0 0 0 1/4 1/4 1/4

Tapiu

0 0 0 0 0 0 1 1

Charlie Gandy Boat Boat 1/2 1/2 1/2 1/2 1/2 0 1 1/2

Earnest F. Botcher 0 0 0 0 0 0 1/2 0

Paul Eugene
 Sawyer

Sunday Nov 22nd 1914

All day at Garity's Hotel. Hock-

Monday Nov 23rd 1914

Worked on field notes in AM.
Johnson & Gillis did not work
in AM.

Caro comes from Walker at 10-01 AM
P.M.

We get Spain's horse and drive to

Co. of 9-10-15-16-140-30

where U.S. notes call for Post and:
the following bearing trees:-

Aspen 10 N 59° E 83 LKS = 54.78 ft

Y. Pine 12 N 30° W 124 " = 81.84 "

Yellow Pine 20 S 45° E 79 " = 52.14 "

Aspen 45 71 W 60 " = 39.60 "

We find both pine stumps and the SW Aspen
from which we set the corner by flat chain
from fore of BT marks the NW Pine stump
is tall and plainly marked

We drive a Galvanized iron pipe
2 1/2 x 48 inches No cap or anchor rod -
set 1 foot above ground for the true cor
to 9-10-15-16-140-30 after which the

140-30

Nov 23-1914 Contd

(12) Hack-Bush Lake 127
Twp.

old bearings stand as follows

old YP stump 12. bears N 32° 30' W 81.84 feet

old YP " 20 " S 69° E 52.14 "

old Aspen " 4 " S 70° W 39.60 "

to face of stumps @ 9° Variation

Set with Gurley Compass + 100 ft

"Monarch" steel tape (links & ft marked)

We start a stub line of pickets
North @ 8° Var. Oscar Johnson and C
Gilia Cut brush North set P.M.

Bryant and Curo look for 1/4 Cor.
Set lines 9 and 10 - 140-30 where US
notes call for (Q to D at 5)

Aspen 12 N 9° E 25 lbs

Aspen 12 - - - -

All appear to be gone and we drive
back to Hackenrock Curo stays home
Bryant stays still with Garrity Hotel

Johnson & Gilia get 1/2 day each in P.M.
Curo & Bryant whole day.

Spain's horse 1/2 day in P.M.

Roy Bryant
John H Curo

Tuesday Nov 24-1914

Johnson + Gilie Cut brush all day
North bet Secs 9 & 10-140-30Curo and Bryant carry
survey outfit to Twin lakes and
find W. line Cor to Secs 16-17-20-
21-140-30 where US notes say:

Wit Cor North 30 Lks

NP20N55W 103 Lks = 67.98 ft

NP20N43E 94 " 62.04 "

The N.W. line is standing green -
plainly marked - also the stump of the
N.E. line from which we drive a spike for
the H.C. by flat chain from face of
B.T. marks. Brall stake sets 0.20
(2 inches) north and 0.10 (one inch) EWe have a 100 ft steel tape + P.B. and
Hloe transit. Chain transit line
previously run by BryantBeg at a point one tenth 0.10 ft
West of Wit Cor to 16-17-20-21-140-30
which is 19.80 ft N. of the true corner
we chain North@ 142.35 Hub on hill. @ 308 Cen of
Hackensack - Woman Lake road
bear E & W @ 312.35 Spike in N
edge of road 388. edge of seawall

Nov 24-1914

continued

140-30

(14)

Hock. Buick Lt. 129

406. enter water's edge of lake. 442.35
pin on ice + 57.65 set pin on ice 500' N.

@ 1300 stake on ice 1355 leave water
edge of ice 1599.50 Hob @ 2115 enter open
bog bears E + SW @ 2600 stake in
marsh @ 2607.20 the ^{Twp} 1/4 cor set East
27. feet

At this point being the 1/4 cor bet
16 and 17 - 140-30 S water's call for
NP 9N 53°E 100 LKs = 66.00 ft

" 8N 4°W 272 " - 179.52 ft

We drive a spike in the meadow
for the temporary 1/4 cor set from the old
NW 37 which stands green plainly
marked set with Alce transit 9°25'N
and 100 ft stilt tape + Plumb bob

This fixes the position of the
1/4 cor as to N + S but we will
chain the whole mil. of transit line
North before placing the 1/4 cor to E + W
to see if we can leave the line
straight for the whole mil. after
correcting up

So we begin at a point on our
transit line 27. ft west of our temp
1/4 cor and chain North. @ 130 ft
to meadow. @ 352.10 Hob. @ 560 cor

130

Nov 24-1914
could(15) Birch Lake Twp
140-30

old E & W logging road - 120 ft

West of water edge of lake @ 1600 pm

@ 900 set hut @ 1500 set stake

1458.20 Hut @ 2026.70 find hut

Thence down hill @ 2255 new

wagon trail bears NE & SW

2665.20 Hut. True on to 8-9-16-17

140-30 set one ft N. and 51.50 ft E

@ 2666.20 on set's E on 51.50 ft

- To correct back -

2607.20 added to 2666.20 equals

5273.40 total from H.C. To Sec on

Adding 19.80 for distance from

H.C. To Sec on makes total length

of sec line 5293.20 feet

2666.20 N = 5273.40 N + goes East 51.50

2026.70 N = 46 33.90 N " " " To 1/16

1333.10 N = 39 40.30 " " "

1458.20 N = 40 65.40 N " " "

900.00 N = 35 07.20 N " " "

352.10 N = 2959.30 N " " "

00. = 2607.20 N " " " To 1/16

1599.50 N " " " Corn

1293.70 N " " "

312.35 N " " "

142.35 N " " "

140-30

Stony Lake

16

131

N

9

8

17

16

5293.20

5273.40

1/4

Turn Lake

Hock-W.L. Road

2.10

we

19.80 ft

17

16

20

21

Turn Lake

140-30

132

Nov 24-1914
Contd⑪ Birch Lake Twp
140-30

Reg @ Cr to 8-9-16-17-140-30. use chain
north over transit line run by Bryant &
@ 490.20 Hub 1140. Hub. 1290 enter west
point of solid swamp @ 1450 L to same
@ 1600 set stake point for hub
@ 1800 set stake " " "
@ 2100 East end of small swamp
@ 2173.80 find hub being lost but set by
Bryant

At the 1/4 bet Secs 8 and 9-140-30
US notes call for post and (Rt. C at 5")
White Birch 55 32° W 16 Lks =

" " 45 62° E 19 179 Lks Allagons

At M.C.N. 35. 140-30 being 600 Lks =
396.00 ft OS Chain N. of 1/4 bet 8 & 9-140-30
US notes call for:

White Pine 18. S 77° E 20 Lks = 13.20 ft

We find the stump of the old P.T. but it
is too late tonight to set the M.C.

So Bryant and I quit for night and
carry also transit + 100' tape to
Hockensack. Cuss gives Bryant \$10.00

Bryant gets supper at Chester Garrity's
hotel and we take 7 pm freight train
to Walker where Bryant gets field notes

John W. Cuss

Nov 24-1914
Contd

(18)

Buck Lake Tap
140-90

133

and \$5 more cash making in all \$15. and catches the same freight to Remidji where he will take G.N. Train to Ball Club to set NW Cor of 144-25 and run 1/2 mile of Co road North.

Curo sleeps at Jacksons at 4th

Wednesday Nov 25-1914

Curo Pays Jackson 50¢ and \$2.75 back board making in all \$3.25 and takes 9-36 AM train back to Hochersack with Kinsley Transit P.M.

Harold Curo and I get a horse and buggy from H.J. Spain and to Hook at 12 P.M. and drive to iron cor to 9-10-15-16-140-30 where Martin Hanson and Cliff Hanson help us chain North on cut out picket line

@ 162. match in stump 500 set stake as point for hub 8'15" V at 600 stake in cut in old E+W logging road.

@ 680 enter solid meadow being narrow strip of water E+W, frozen

John W Curo

134 Nov 25-1914
contd

(19) Birch Lake Tap
140-30

at 800 Leaver's at 890 old

logging road bears NE + SW 900 stakes

940 new wagon road bears NW and SE

1000 set stakes pt for hub.

1070 enter marsh 1200 stakes - 20 more

1320 set stakes being pt for hub to be put in

1500 stakes 1800 stakes for hub

2100 stakes for hub 2400 stakes for hub

2640 stakes for hub. 2700 stakes

at 2730.60 intersect E & W wire
fence about 40' E of NW Cor

Martin and Cliff Hanson help Harold
Curo and I chain 300' logs & Plumb-
bob.

Harold & I drive back to Hock

I get full day - Harold 1/2 day

Martin and Cliff Hanson 1/4 day each

Spains horse 1/2 day in P.M.

Nels-Johnson & Gulis did not work

No pay for Harold

John W Curo

Thursday Nov 26-1914
Thanksgiving Day.

Gene Sawyer and team get
Curo and we drive to Larson Lake at
11-30 A.M.

Marlin and Cliff Hanson help us all P.M.
I work Guley transit on line with
pickets, transit at 2000 N. back right
South at red flag @ river cor to

1. 9-10-15-16-140-30 and at
1320 set Hub at 1800 set Hub

2100 Hub 2400 Hub 2640 Hub

Reg at Hub 2700 continue North 18'15'
@ 2730.60 cross wire fence - enter big
open lawn swamp & meadow

at 2955 enter small Island which
lays NW in open swamp at 3000 stake
at 3125 LV Island. 3300 pin in marsh
3600 stake in marsh at 3840 enter
solid point of land coming up from
the West. 3870 Hub 3885 new

wagon trail NW & SE 3900 stake
3930 again enter sand open swamp
4200 pin in meadow 4500 stake

John W Curo

136 Nov 26-1914
Cont'd

(2) Buck Lake trap
140-30

in meadow (at 4700 L.V. swamp)

4699.40 set Hub 4800 slake-5100 fm

at 5318.80 the corner is East 57.90 ft

At this point being the corner to

Secs 3-4-9-10-140-30 U.S. notes

call for NP 30 N 53° E 60 LKs = 39.60 ft

Apex 10 N 51½° W 118" = 77.88'

WP 24 S 17½° E 72" = 47.52'

We find the stumps of all the trees
which check out perfect for course
and distance except that the NW corner
is 29/100 of a foot too far away

I proportion the distance bet the
NW & SE stumps and drive a 3x3x20"
bur oak stake & lock for true corner

to Secs 3-4-9-10-140-30 and blaze a new

B.T. being Black Oak 7 S 65° W 11.05 ft

@ 8° W Old B.T. Stumps stand

NP 30 N 53° E 39.60 ft. Apex Stump 10 bears

N 51½° W

WP Stump 24 S 17½° E —

300' left - Gravelly bluest. Curio - Cliff House
Cham. Sand & saws drive back to work
in the dark. Earnest F.L. Brodeur

Took us to eat Thanksgiving dinner
and helped us cut fire in P.M.

John A. Curo

(22)

Brick Lake Twp 197
140-30

Friday Nov 27-1914

Roy Bryant got back from Ball Club
on early morning ("night") train and
slept at Chester Garity's Hotel

P.E. ("Gene") Sawyer and team drives
Bryant and I out - Bryant walks
up Finley road and Sawyer and I
drive to Marlin Hanson's Homestead
on Lot 5 - Sec 10 - 140-30

We arrive at 11-17 AM and I write notes
till noon We eat dinner with Hanson

P.M. [0010886]

Correcting line Bet 9 & 10 - 140-30

5318.80 goes E 57.90

4689.40 " " 51.16

3989.10 " " 43.44

3870.00 " " 42.13

2659.40 " " 28.96

2640.00 " " 28.74

2400.00 " " 26.13

2100.00 " " 22.86

1800.00 " " 19.69

1329.70 " " 14.48

500.00 " " 5.44

162.00 " " 1.76

5318.80
5790.00
9 10

9 10
16 15
TWIN

138

From corner we set Lot
 core on a five foot offset. Find 3rd st 68.6'.
 33.3' from S.E. cor Lot 1. E Hedge 7' North.
 2' W from S.E. cor Lot 1 - 1' Retaining wall N 5'
 9' E ✓ SW ✓ 1-38.5' N Building }
 10' E ✓ SW ✓ 3-54.5' N ✓ } H
 1.7' W ✓ SW ✓ 4-4' N R. Wall 1' }
 9' E ✓ ✓ 4-4' N R. Wall 1' } Drive
 6' E ✓ ✓ 5-44' N Building } Alley

E

E

1 2 3 4 5 6 7 8 9 10 11 12 13



1.28

1.28

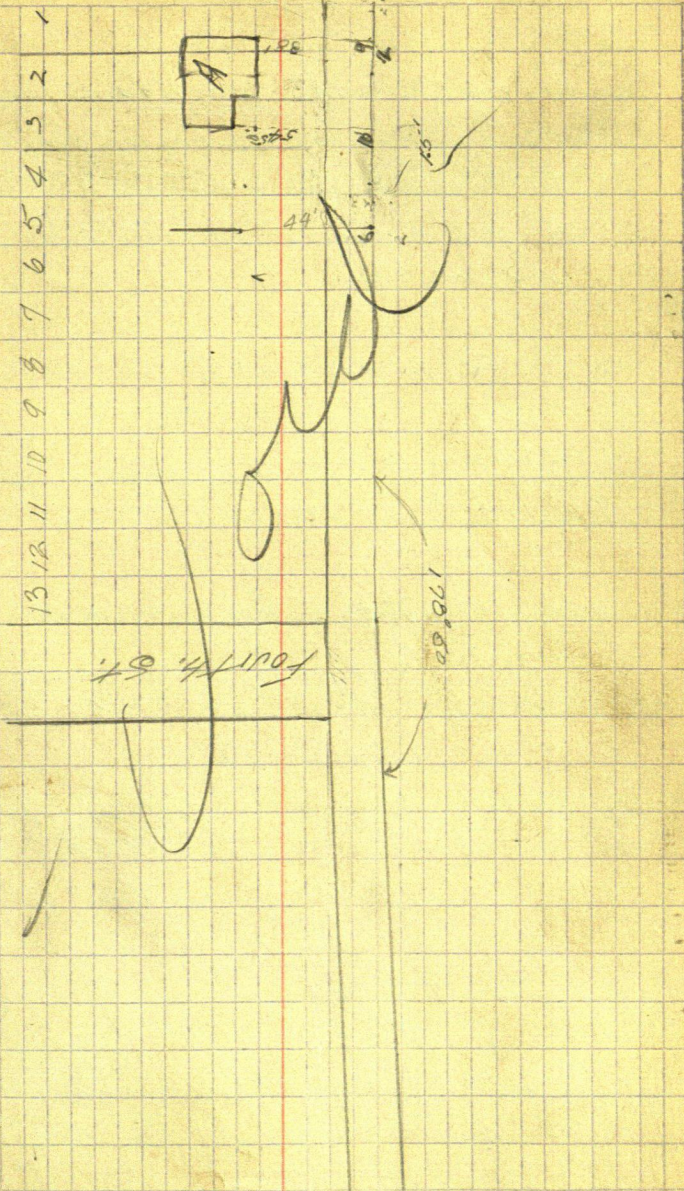
44'

1.28

1.28

Fourth St.

1.28



140

140-30

Friday April 5-1918.

E. B. Horst with survey
outfit drives to Hackensack
to make a survey of the
E $\frac{1}{4}$ line of section 17.
140-30. Dinner at Hack.

E. B. Horst, A. D. Brokaw
& Gillis Begin at the
I.M. at the $\frac{1}{4}$ corner between
sections 17 & 20-140-30
previously established from
U.S. B.T.S. by John W. Euro
and run E. on graded
road at 1357.8 set hub
W. of Twin lakes.

We walk around twin
lakes to the Witness corner
to section corner of 16-17
20-21 and find wood
post set from U.S. B.T.
& B.T. stump. from this
and Roy Bryants Notes
of a previous survey we
set the true section

corner of 16-17-20-21-140-30
and drive a 2"X48" I.M. at
true corner also one at $\frac{3}{4}$ th
cor. which is 19.8 Ft. N.

We then produce random
line across lake intersecting
14 Ft. N. of sec. corner.

at Hub 1357.8 point A.

Sight to corner of 16-17-20-21
Pt. B. and turn Left $59^{\circ}57'$ and
chain out 307.0 Ft. set Hub.

Point C. angle at C = $106^{\circ}08'$
at point B = $13^{\circ}55'$

Distance across lake from
Hub 1357.8 to sec. cor. = 1226.0 Ft.
 $E \frac{1}{2}$ of sec 17 = $1357.8 + 1226 =$

2583.8 ft. at sta. 1291.9 chain
S. 7. Ft and set true $E \frac{1}{16}$ cor
between secs 17-20. being
a 2"X48" I.M.

With transit on $E \frac{1}{16}$ corner
Sight W to $\frac{1}{4}$ th corner and
turn N.W. angle $88^{\circ}44'$ and
run N. about $\frac{1}{2}$ mile
E.B. Horst.

142

140-30

Sat. April 6. 1918.

Rain + snow.

no work

E. B. Horst.

Sunday April 7-1918.

Work 1/2 day for William
Kinney, its Bull Moose
measuring Hay Meadow
for Saw Suit.

E. B. Horst

Not
to be
used

Monday April 8-1918.

P.M. continue for Brokaw
and Gillia continue E $\frac{1}{16}$
line N. to section line
We walk to corner of secs
8-9-16-17 marked by an
I.M. and chain W on random
line previously run by me
at 1316.95 Ft. W. set Hilt on
Random Chain N. 32.25 Ft.
and set E $\frac{1}{16}$ corner between
sections 8-17 being a 2" x 48"
I.M. E $\frac{1}{16}$ line intersects

7.3 Ft. W. of corner

We chain S 1333 Ft and
set a $\frac{3}{4}$ " x 24" I.M. on true
E $\frac{1}{16}$ line also one on Bank
N. of small lake about 300 ft
400 Ft. N. of E & W $\frac{1}{4}$ line.
E.B. Horst.

→ Removed 1921 (F.B. 59) and placed
S, for S.M.C. N. of lake
Placed inside of 2" x 48" I.M.

$$\begin{array}{r}
 272 \\
 \underline{1032} \\
 1632 \\
 \underline{17952}
 \end{array}$$

J. D. Dwyer Esq.
 Assistant Surveyor of J. H. C.

Tie to S.E. Cor Lot one of LeVigne
 6.8' N 1° E of End Retaining Wall