



Moulster.

Dec. 6, 1911

Pine River, Minn.

51.

FIELD BOOK

360

51

Index

County road - 138-24-138-30 -
continued from Book 3 - 1 -

County Road - Dec. 30-138-29'

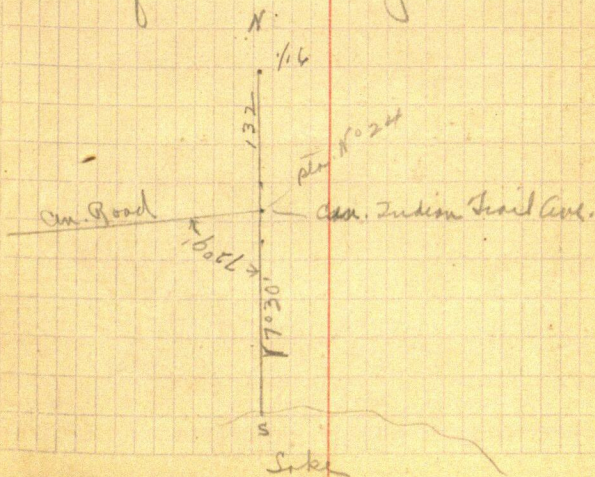
Wednesday - Dec. 6-1911.

John Crossman - S.

Beg. at Sta. No 23, we continued in an easterly direction.

Sta. No. 4 - being a point on the west boundary of "Hollywood" 167.43 feet south of the N.W. Cor. ($1/16$), or Sta. No 24 is the center of Indian Trail Ave.

Find the N.W. Cor. of Hollywood, ($1/16$) also the old point of stake 345 feet south. Set the center of the street from these two points.



County Road - Nowood

3

Saturday Dec 9, 1911.

Crossman + 2 - Working on county road - Indian Trail Ave.

Worked at locating the center of the Ave. at the angles. To do this we had to set several of the stations at the lake shore. 2 put them in by course and measurement.

Sunday Dec. 10 - '11.
at home.

Monday Dec. 11 - 1911
Snowed all day.

Tuesday - Dec. 12 - 1911
Crossman + 3 - We started at Sta. 31 -

Notes of line bet. Stations 31 + 34
500 with bog - hill can be graded down to full bog.


Sta. No 32 in bog.

" " 33 " " & south end of Indian Trail avenue.

Enter Russ's land.

Sta 33 - 150 above low land -
raise, out to full low land -
(100 more high)

4
375- old road - then follows
old road to Sta 34

Wednesday - Dec. 13 - 1911
Crossman 

Station 37 - is at the east end
of Pine Shot Avenue - on section
line.

(Sta. 36 $S 7^{\circ} 37' W$

$S 6^{\circ} 40' E$)

Sta. 34 - on section line - N. Bound.
31.

40 on same sec. line

Norway Lake County Road. 5.
(Continued from Book No 3.)

Station	Bearing	Distance		Approx. Mag. Decl.
37	N 87° 23' W	120.97		S 83° 30' W
38	S 37° 34' W	1247.50	angle S. S. line	S 28° 45' W
39	N 89° 28' W	257.72	and S. S. line	S 81° 20' W
40	S 44° 43' W	400'		S 36° W
41	S 60° 37' W	450'		S 51° 40' W
42	S 86° 15' W	528.25		S 77° 10' W
43	S 3° 43' W	775.20		S 5° 10' E

County Road - Norway, N. H. 7

Thursday, Dec. 14 - 1911.

John Crossman - D.

We finished up at Chicabonaw
and continued line around
lake shore (on Hovis land) -
intersected the N + S center line
of the $N \frac{1}{4}$ - 31 - run on Torber
at short distance. Sta. 41 - on
Torber land. $\frac{3}{4}$ day

Friday - Dec. 15.

We worked on south side of lake.

By at a point 363 feet (77 rods) east
of the $\frac{1}{16}$ cor. (this point is Sta. No 44)
north of center line. 31 - 138 - 39, run
north and intersected the line
2 was running on south side
of the lake.

Sat. - Dec. 16 -

We set $1\frac{1}{4}$ " x 30' gal pipe monuments at
stations 1 to 6, inclusive.

$\frac{1}{4}$ day

Mon. Dec. 18 -

4 eq. $\frac{1}{16}$ corners

Dec. 31-138-29

Position of $\frac{1}{16}$ cor., i.e., the center
of the SW $\frac{1}{4}$.

Rad. ch. E + W = 41.54 ch = 2741.64 feet
Smy " " + " = 2777.80 feet.

$$2741.64 : 2777.80 :: 1320 : X$$

$$X = 1337.40$$

$$2741.64 : 2777.80 :: 1421.64 : X$$

$$X = 1440.3$$

$$1337.4 + 1440.3 = 2777.7 + - \text{check.}$$

\therefore The $\frac{1}{16}$ cor. sets at 1337.40 West
and north 156 feet

20

$\frac{1}{16}$ cor - west of center of section
E-W

$$\text{rod. ch.} = 42.28 \text{ ch.} = 2790.48 \text{ feet}$$

$$\text{my " } = 2852.50 \text{ feet.}$$

$$2790.48 : 2852.50 :: 1320 : X$$

$$X = 1349.3$$

$$2790.48 : 2852.50 :: 1470.48 : X$$

$$X = 1503.2$$

$$1349.3 + 1503.2 = 2852.50 - \text{check.}$$

$\therefore \frac{1}{16}$ cor. sets at 1349.3 west-
and south 34 feet.

10

20 Dec 31-136-29

 $\frac{1}{16}$ cor - cen. of NW $\frac{1}{4}$ -

Soo. ch - E + W = 4300 = 2838 feet

My " " + " = 2937 feet

2838 : 2937 : 1320 : X

X = 1366.04

2838 : 2937 : 1518 : X

X = 1570.96

 $1366.04 + 1570.96 = 2937$ - Check $\therefore \frac{1}{16}$ sets at 1366.04 West,
and north 14.51 feet.

N Bound. Dec 31-128-29

Correction for my old line between

MC No 20 + 19.

797.25 ^{on boundary line} sets north .35 feet

1767.25 " " .77 "

This gives the true line
between MC 20 + 19.

Wed. Dec. 20 - 1911 31-12859

11

1/16 cor - W of cen. of section
Bearings

PP S E 8.45 feet
PP S W 13.75 feet
Isotach heads

1/16 cor - center of NW 1/4
Bearings

NP6 S W 4.24 feet
Pop. Sub-S N W 8.85 feet

Setting on 1/16 cor - center of SW 1/4 -
run north 7035

3.50 cross W fence E + W

160 (?) leave this cleared field

200 -

390 enter open field

400

600

640.90 - Hub

700 leave field

800 - Run - in front of Winkler's barn

17

31-138-24

1000 Run in job Run
1109.6 Hub
1700 70/5'

At 1324.90 North - $\frac{1}{16}$ cor - i.e.
the $\frac{1}{16}$ W center section, sets
east 3358 feet.

Distance from above $\frac{1}{16}$ cor
to Holquist's fence - west -
147 feet.

Setting on $\frac{1}{16}$ cor - i.e., the
center of NW $\frac{1}{4}$ - run South 70° E
210
300 Hub

Thursday Dec. 21-1911.

down - - -

400 -

600 -

7 + S center line of NW 1/4

31-138-24

13

800 Hub - enter clearing

1000-1200

1250 leave clearing

Cut 1347.85 feet south, 1/16 corner
west of center of section sets west
23.82 feet.

300 sets west 5.31

Setting on 1/16 - i.e., the center
of NW 1/4 - run south by backsighting
to corrected Hub - this 200 - 600.

17 1/2 W fence E + W.

25 enter cleared field

200-400-600-800

850 leave field

870.10 Hub. 1000

1200 enter field

1298.55 - 1/16 ^{corner} in field - 281.18 feet
east of Hub 1575 West.

Friday Dec. 22-'11 -

In A.M. - 2 worked on Norwayhwy
County road 2015 - plat to General
Sund Office for approval.

Saturday - Dec. 23-'11.

Crossman - 15 - We worked
setting $1\frac{1}{4} \times 30$ " galvanized iron pipe
at the stations on the Norway
Inlet Road. To and including
Sta. No. 16.

Sunday - 24

Monday Dec. 25
Xmas.

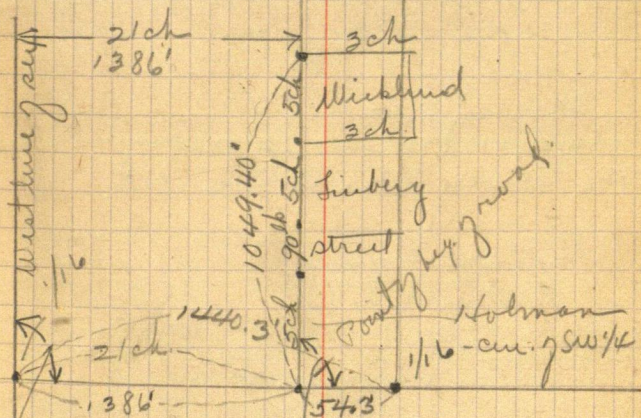
Tuesday Dec. 26

Crossman - 25. Set pipes at
stations - 27 to and including
Sta. 43.

Wednesday, Dec. 27 - 1911

$\frac{1}{2}$ Eisenstein + 5 -

$\frac{1}{16}$ Aug



E + W Center line of SW 1/4 - 31-138-24

Angle

Thursday Dec. 28-1911

Monday - Jan 1. 1912.
Worked on notes and plot of
the Norway Lake Road.

Tuesday Jan. 2 -
do -

Wednesday Jan. 3
do -

Wed. Jan 4
do.

Thurs. Jan. 5 -
do

Friday Jan 6
do.

Saturday Jan 7
do

Jan. 11 - 1912.

Cape County -

Left P.R. - 4:40 - 914

Arrived Watson

On looking up notes of several
courses in 37-79 - etc.

3-14-1912

395 feet South of E-W Center
Line of Sec. 3 - the river is 490
feet wide - measured from old water
edge on ~~west~~ east side.

45' of this is on W. Hills -

490 - 45 = 445 on hillside

575 feet N of E-W Center Line
river is 553' wide

SE of NW -

South - to across river - 457

71 " " " " " 456

18

Sta.

Brg.

Ang. R.

Ang. L.

Dist.

Effect

Friday - April 5 - 1918

A.M.

John Crutcher and I drive to
Hos. Reservoir

138-29

4-5-8-9 - Sub. note call for -

$$NP 22 \pi 30 \frac{1}{2} E 32 = 21.12 \text{ feet}$$

$$" 18 \pi 28 W 142 = 92.72 "$$

$$" 16 S 66 \frac{1}{2} W 72 = 47.52 "$$

$$" 20 S 6 E 80 = 52.80 "$$

1/4 cor. east side of 8 - to C at 5

$$WP 14 S 49 W 31 = 20.46$$

$$Calc 9 \pi 36 \frac{1}{2} E 16.5 = 108.90$$

SE Cor. 8 - Sub. note call for -

8-9-14-17

$$Calc 4 \pi 24 E 74 = 48.84 \text{ feet}$$

$$NP 17 \pi 53 \frac{1}{2} W 160 = 105.60 "$$

$$NP 18 S 28 W 221 = 145.86 "$$

$$NP 18 S 46 E 118 = 77.88$$

20

Hub's notes for cor 8-9-16-17
 714 73W 16 10.50

8 563W 95 - 62.70

P.M. Croonian - char. Westport - had
 war fare and 2.

Setting on cor. 4-5-8-9 - run in ^{South}
 .8' 45' ran.

15 inch run

700 in "

400 " "

600 " "

800 " "

890 low aug. hill - plenty dirt
 corner road way in aug.

923.8 tree in 5" log.

1000 7 side hill

1125 1st hill

1200 2nd hill

1323.65 3rd on hill

1400 3 footy above hill road 28 feet E.
 angle of 1/2

1600 on hill

1800 Pin

2000 "

Sunday 6

Chas W. in jail - dinner - 11:00 - 1:00

zone

2397. ~~Hub~~

2400

2600

2640 - in east neck of point of sand.

2800

At 2866.55 - 1/2 mile east 45.9 feet
thence south

3000 in range

3200 "

3316.4 Hub - 10 miles west

3400 " "

3600 " "

3800 " "

4000

4200

4400

4439.10 Hub

4600 - 4800 - 5000 - 5200

At 5307 - SE of bath and 34.5 feet

22

Current holes at North end, where
swamp.

1323.6 ~~Setback~~ 2.8

1125 .. cost 2.4

Solon accounts

April	5	6
John Crossman	1	1
Bes. Roscoe	$\frac{1}{2}$	$\frac{1}{2}$
Charlie Westfall	$\frac{1}{2}$	$\frac{1}{2}$
James Westfall	$\frac{1}{2}$	$\frac{1}{2}$

Dome Notes

Correction for B. C. Wideman
South line & E+W center line

NW 1/4 of Sec. 31 - 138-29

800 sets north 8.50 feet

1400 " " 14.87 "

Reg. at Cement Man. at 1/16 cor.
north of Center of sec. 2

Run west - 80° 45'

800 Hub -

1400 / "

1560.85 "

At 29 37.00 ft. west - 1/16 cor. north
1/4 cor. on west side of section.
Sets north 31.20 feet.

A. W. Wideman

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES $1\frac{1}{2}$ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
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19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

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

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