

Sewerage. Field Notes.
Front Street.

9 50

TRANSIT

F.B. 728

728

Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

Minutes.	Lks.	Minutes.	Lks.	Minutes.	Lks.
1	2½	21	49	41	95½
2	4½	22	51½	42	98
3	7	23	53½	43	100½
4	9½	24	56	44	102½
5	11½	25	58½	45	105
6	14	26	60½	46	107½
7	16½	27	63	47	109½
8	18½	28	65½	48	112
9	21	29	67½	49	114½
10	23½	30	70	50	116½
11	25½	31	72½	51	119
12	28	32	74½	52	121½
13	30½	33	77	53	123½
14	32½	34	79½	54	126
15	35	35	81½	55	128½
16	37½	36	84	56	130½
17	39½	37	86½	57	133
18	42	38	88½	58	135½
19	44½	39	91	59	137½
20	46½	40	93½	60	140

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Table for Running on Slopes.

In the following table the first column shows the angle, the second, the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

Angle.	Cor. in links.	Angle.	Cor. in links.	Angle.	Cor. in links.	Angle.	Cor. in links.
0		0		0		0	
4	0-24	11	1-88	18	5-14	25	10-54
5	0-38	12	2-24	19	5-76	26	11-26
6	0-55	13	2-63	20	6-42	27	12-24
7	0-76	14	3-06	21	7-11	28	13-37
8	0-98	15	3-53	22	7-85	29	14-34
9	1-24	16	4-02	23	8-64	30	15-47
10	1-55	17	4-56	24	9-47	35	22-07

LBM

L Date

Lront - N - Not & Oct 7

1

Sta	+	Hi.	-	Ele	
Bm.	8.29	14.04 ⁹⁹		5.749	
-1			7.37	6.67	
+25-			6.58	7.46	
+50			6.26	7.78	
+75-			6.19	7.85	
2			6.12	8.92	
+25-			6.89	8.65	
+50			5.40	9.04	
+75-			4.22	9.82	
3			4.10	9.94	
+25-			3.76	10.28	
+50			3.64	10.40	
+75			3.16	10.88	
4			3.35	10.69	DJH
+25-			3.05	10.99	
+50			2.35	11.69	HST
Bm.	8.954	19.79 ⁸⁷	3.21	10.829	
+75-			7.74	12.05	HST
5-			7.87	11.92	HST
+25-			6.60	13.19	
1					

Lront - I - SE Spike in post

B.M.

63 rd

From Hi-Map 1 Oct 1957

No	+	Hi.	+	Elev
5750		19.79 ⁴⁷	6.39	13.40
+95			5.87	13.92
6			5.62	14.17
+28			5.35	14.44
+50			5.16	14.63
+75			4.67	15.12
7			4.44	15.35
+25			4.29	15.50
+50			4.00	15.79
+75			3.59	16.20
8			2.90	16.89
+20			2.54	17.25
+40			2.31	17.44
+60			2.34	17.45
+80			2.28	17.52
B.M.	3.96	23.07	0.675	19.112
9+05			5.18	17.89
+30			5.17	17.90
+55			5.05	19.02
+80			5.04	18.13
10+15			5.17	17.90

SLB

635

SLB

Front + S Hyarant

Oct-22/57

L.B.M.

Leonard Road Lewis - St. Nof & Out 22/87

3

Sta	+	H.I.	-	Elev
10+30		23.07	5.27	17.40
+55			5.80	17.77
+80			5.83	17.74
11+05			5.17	17.90
+30			4.93	18.14
+55			4.53	18.54
+80			3.80	19.27
Ban.			3.605	19.467
	8.43	27.90		19.47
12			4.17	19.43
+20			7.70	20.20
+40			7.44	20.42
+60			7.58	20.32
+85			7.11	20.80
13+10			6.98	20.92
+35			6.78	21.12
+60			6.33	21.57
+85			5.75	22.15
14+10			4.95	22.95
+35			3.91	23.99

From + F. ... Oct-25-187

FST

L.B. Mendentall

4

Leonard Road Front - Mt N of B Oct 25 1887

Mt	+	H.I.	-	Elev
14+60		27.90	3.13	24.77
+85			2.46	25.44
15+10			1.96	25.94
+35			1.41	26.49
+60			0.84	27.06
#	5.155	32.33	0.725	27.176
+80			4.50	27.83
16			5.01	27.32
+20			4.99	27.34
+40			4.39	27.94
B.M.	5.48	34.13	4.08	25.25
+65			5.70	28.43
+90			5.74	28.89
17+15			5.32	28.81
+40			5.13	29.42
+65			4.89	29.24
+90			4.68	29.45
18+15			4.63	29.50
+40			4.36	29.77
+65			4.70	29.43
+90			4.65	29.48

corrected by the level on Mt N of B.
 15' S of N line of C. Mt N of B which was
 from C. Mt N of B. Oct 27/87

L.P.M.

Leonard Front - St. Hub. B. Oct-27/1837

Sta	+	H.I.	-	Elev
B.M.	5.8.6	34.11		29.28
16+40			5.77	28.94
+65			5.92	29.19
+90			5.38	28.78
17+15			5.11	29.10
+40			4.90	29.21
+65			4.50	29.31
+90			4.56	29.55
18+15			4.44	29.67
+40			4.72	29.89
+65			4.76	29.35
17+90			4.33	29.78
19+25			4.04	30.07
B.M.	4.6.4	36.51	2.24	31.47
+50			8.01	28.50
+75			6.67	29.84
20			6.49	30.02
+25			7.47	29.04
+50			5.99	30.52
+75			4.78	31.78
21			4.85	31.65

Front + B Spk in the Park

St. Hub. B. Oct-27/1837

12.5.4

From 11-11 of B (10-28/87)

Sta.	+	Ht.	-	Elev.
21+25		36.57	5.12	31.39
+50			5.13	31.38
+75			5.13	31.38
22			5.16	31.36
+25			5.08	31.48
+50			5.10	31.41
+75			4.96	31.55
#	4.28	36.12	4.67	31.94
23			4.59	31.53
+20			4.86	31.75
30m	4.84	37.27	3.69	32.43
+40			6.50	30.77
+60			6.02	31.25
+80			5.62	31.65
24			5.69	31.58
+25			5.30	31.97
+50			5.36	31.91
+75			5.10	32.17
25			4.95	32.32
+25			4.75	32.52
+50			4.80	32.97

55c

CL

12c

L. B. M.

Lernara's Term - 11/1/3 Oct-28

Sta	+	##	-	Clear
-----	---	----	---	-------

25775-		37.27	41.23	33.04
--------	--	-------	-------	-------

26			4.45	32.82
----	--	--	------	-------

+25-			4.03	33.24
------	--	--	------	-------

+50			3.67	33.60
-----	--	--	------	-------

+75			3.93	33.34
-----	--	--	------	-------

27			3.41	33.86
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B.M.	5.20	44.78		39.58
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+20			9.76	35.02
-----	--	--	------	-------

+40			8.66	36.12
-----	--	--	------	-------

+60			7.83	36.95
-----	--	--	------	-------

+80			6.12	38.66
-----	--	--	------	-------

28+05-			4.65	40.13
--------	--	--	------	-------

+30			3.76	41.02
-----	--	--	------	-------

+55-			2.98	41.90
------	--	--	------	-------

+80			2.01	42.77
-----	--	--	------	-------

29+05			1.30	43.48
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#	8.30	52.20	0.88	43.90
---	------	-------	------	-------

+30			8.23	43.97
-----	--	--	------	-------

+55-			7.82	44.38
------	--	--	------	-------

+80			7.61	44.59
-----	--	--	------	-------

7

Lernara's Term - 11/1/3 Oct-29

B.M.

Leonard Grant Sta. N. of B. Oct 29 1907

Sta	Elev	Grade	Cut
-----	------	-------	-----

30+03		52.20	7.54 44.66
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+31			7.14 45.06
-----	--	--	------------

+35			6.64 45.56
-----	--	--	------------

+40			5.41 46.79 <i>SLA</i>
-----	--	--	-----------------------

31			5.45 46.75
----	--	--	------------

+25			4.18 48.07 <i>AST</i>
-----	--	--	-----------------------

+40			4.55 47.65
-----	--	--	------------

+60			3.41 48.79 <i>SLA</i>
-----	--	--	-----------------------

B.M.	9.96	56.50	4.66 47.54
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+35			7.23 49.27
-----	--	--	------------

32+10			6.74 49.76
-------	--	--	------------

+35			6.26 50.24
-----	--	--	------------

+60			6.02 50.48
-----	--	--	------------

+35			5.94 51.56
-----	--	--	------------

33+10			5.84 50.66
-------	--	--	------------

+35			5.92 50.58
-----	--	--	------------

+60			5.86 50.64
-----	--	--	------------

+35			5.81 50.69
-----	--	--	------------

34+10			5.60 50.90
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+35			5.63 50.97
-----	--	--	------------

+60			5.12 51.38 <i>SLA</i>
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Grant + A Spine in Leonard Pass Nov 1 1907

50.39 Grant + Ast Leonard S.W.

L.H. Mendenhall

Leonard

Front St - N of S Nov 3/87

9

Sta	+	Ht.	-	Elev
B.M.	9.25	59.64		50.39
34+80			7.97	51.67
35			8.62	51.02
+20			8.75	50.96
+40			8.39	51.25
+65			7.77	51.87
+90			6.47	53.17
36+15			6.18	53.46
+40			7.14	52.50
+65			10.02	49.64
+90			11.01	48.63
37+15			11.39	48.25
+40			11.05	48.59
+65			10.07	49.57
+90			8.62	51.02
38+15			7.24	52.40
+40			6.11	53.53
B.M.			0.00	59.64

Front + Ash Draw Riv 8" S.W.

Ash St

N of Ash

12 B.M.

Front + Back Spike in Place

Sp. meridional

Leonard Front 11-11-18 to 11-14-18

Sta	+	H.T.	-	Elev
B.M.	6.48	66.07		59.64
38+60			11.53	54.54
+50			10.25	55.82
39			8.63	57.54
+20			7.13	54.94
+45			6.14	59.89
+70			6.40	60.07
+95			5.33	60.74
40+20			5.39	60.68
+45			4.20	61.87
+70			4.18	61.89
+95			6.26	59.81
41+20			9.31	56.76
+45			10.74	55.23
+70			10.22	65.75
+95			9.84	56.23
42+20			9.52	56.55
+40			9.36	56.71
+60			9.01	57.07
+80			8.35	57.62
43			7.84	58.23

11 Front + Bush 11-18

Bush 11-

112 Bush 11-

12 Cedar 11- 66.07

7.80
59.27 B.M. to 12 Cedar Pole

Cedar 11-
- 9.31 56.76 B.M. Center Front + Cedar

11 Cedar 11-

Mendenhall

Lennard

Lennard St NW 8 Nov 7/87

Sta	+	Hi.	o	Elev
Bm	8.61	66.88		58.27
43+25			8.82	63.06
#	11.41	77.48	0.81	66.07
+50			9.53	67.95
+75			6.91	70.57
44			6.22	71.26
+25			5.63	71.85
+50			3.79	73.69
+75			2.16	75.32
45			0.69	76.79
#	6.50	83.37	0.61	76.87
+25			5.32	78.05
+50			4.48	78.49
+75			4.07	79.32
46			3.90	79.47
+20			4.04	79.33
+40			3.28	80.09
Bm.	6.36	85.78	3.95	79.42
+60			4.94	80.84
+80			5.04	80.74

11

Lennard + Redden St NW to Pk

L I Gate

Gate

Lennard + Redden St NW to Pk NW 9/1887

N I Gate

L.S.M.

Leonard Road From St. N. of S. Nov 9/1897

Sta	+	Hi.	-	Plu
47+05		85.78	4.82	80.96
+30			4.72	81.06
+55			3.80	81.98
+80			3.58	82.25
48+05			3.77	82.01
+30			3.50	82.28
+55			2.94	82.80
+80			1.86	83.92
49+05			7.08	84.70
I.P.	11.85	96.20	0.98	84.85
+30			10.95	85.25
+55			9.94	86.26
+80			9.22	86.94
50			8.56	87.64
+20			7.46	88.74
Bm			7.52	88.68
+40			6.72	89.48
+60			6.21	89.99
+85			5.14	91.06
51+10			4.65	91.55

S. L. E. Linn St.

E. Linn St.

Center

S. L. E. Linn

Mendenhall

Leonard Grant St Nov 9/87

Sta	+	H ₂	-	Elev
51+35		96.20	3.57	92.63
+60			2.40	93.80
+45			1.12	95.02
T.P.	7.71	103.09	0.82	95.38
52+10			6.68	96.41
+35			4.65	98.44
+60			4.04	99.01
+45			3.30	99.79
53+10			3.22	99.87
+35			2.64	100.45
+60			1.07	102.02
T.P.	3.23	105.62	6.70	102.99
+80			2.53	103.09
54			1.35	104.27
+20			2.17	103.45
+45			2.85	102.77
B.M.			1.37	104.25
"	7.81	106.09	7.34	98.24
+65			6.34	99.71

LL Fin St

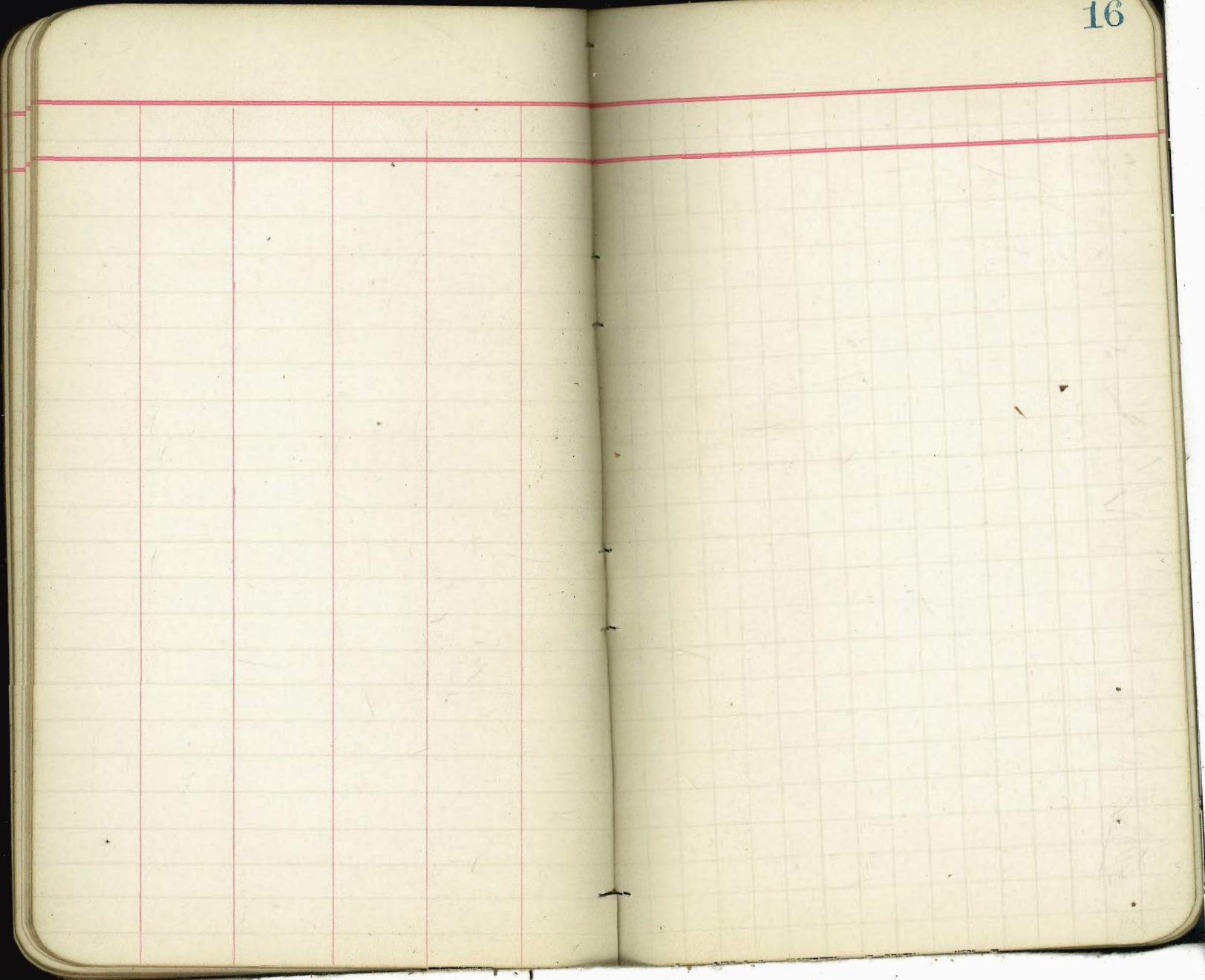
Fin Street

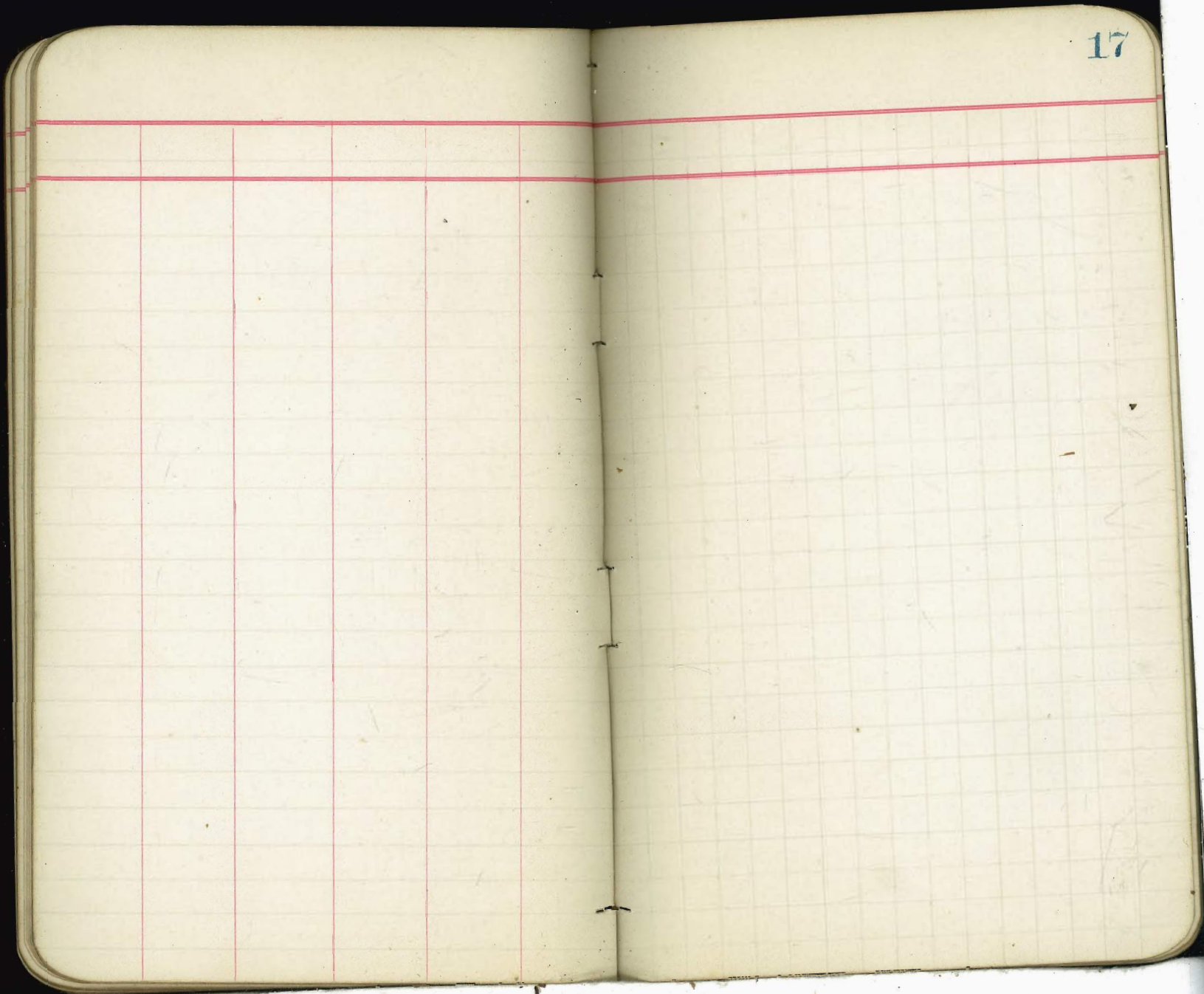
M Fin St

Center Entry Fin

LL LAR maner

The image shows an open notebook with two pages. The left page is ruled with a grid of red lines, forming a table with 6 columns and 18 rows. The right page is ruled with a grid of blue lines, forming a table with 12 columns and 18 rows. The number '15' is printed in the top right corner of the right page. The notebook is placed on a white surface, and the background is dark.





Mendenhall

Leonard

Union St. No. 9 & 10045

Sta	+	Hi.	-	Elev
-----	---	-----	---	------

Bm	2.21	12.02		9.81
1			7.49	4.53
+25			6.88	5.19
+50			6.68	5.39
+75			6.12	5.90
2			5.81	6.21
+25			5.48	6.54
+50			5.05	6.97
+75			4.76	7.26
3			4.37	7.65
+25			3.97	8.05
+50			3.79	8.23
+75			3.34	8.68
4			2.76	9.26
+25			2.08	9.94

Union St. No. 9 & 10045

1278.11 - Street grade 10.3

Mendenhall

Leonard

Union St N of S Nov 2/87

Sta	+	Ht.	-	Elev
4150		12.02	1.73	10.29
#B.M.	6.96	16.77	2.21	9.51
+75			5.90	10.87
5			5.74	11.03
+25			4.93	11.84
+50			4.77	12.00
+75			4.41	12.36
6			3.91	12.86
+25			3.42	13.35
B.M.	9.04	18.85		9.81
+50			5.40	13.45
+75			4.12	14.13
7			4.05	14.80
+25			4.26	14.59
+50			3.88	14.97
+75			3.35	15.50
8			2.89	15.96
+37.5			2.40	16.45
+75			1.92	16.93
#	7.24	24.13	1.96	16.89

19

H St.

Union & H Spoke in lat Pole

N2 H St.

Union & H St in lat Pole - Nov 7/87

S. Line S. St.

S. St.

N. Line S. St.

on Union St. with too high

Mendenhall

Leonard Union St. Nov 8/87

Sta	+	Hi.	-	Elev.
9		24.13	7.17	16.96
+25			6.66	17.47
+50			6.36	17.77
+75			5.99	18.14
10			5.65	18.48
+25			5.45	18.68
+50			5.20	18.93
+75			4.56	19.57
11			4.33	19.80
+25			4.11	20.12
+50			3.75	20.38
+75			3.71	20.42
12+12.5			3.43	20.70
+50			3.22	20.91
Bm	6.93	24.62	2.44	21.69
+75			6.95	21.67
13			6.78	21.84
+25			6.35	22.27
+50			6.17	22.45
+75			6.07	22.55

From G. F. L. H. K. Row Nov 10/887

Mendenhall

Lanana Union St. Nov 10/87

Sta	+	Hi	-	Elv
14		28.62	5.90	22.72
+25			5.84	22.74
+30			5.56	23.06
+75			5.82	23.30
15			4.95	23.67
+25			4.72	23.90
+30			4.43	24.19
+87 1/2			4.67	23.95
Bm			3.64	24.98

*Wings removed
in the block*

Union St. Nov 10/87

L.M.
Larson

Univ. St. No. 3 No. 11/9

Sta	+	H.I.	-	Elev
Bm	5.88	27.57		21.69
12+50			6.78	20.84
H75-			5.97	21.60
#3			5.83	21.74
+235			5.40	22.17
+50			5.10	22.47
+75-			5.11	22.43
14			4.98	22.59
+26-			4.97	22.60
+50			4.74	22.83
+75-			4.40	23.17
+5-			3.96	23.61
+25-			3.86	23.71
+50			3.44	24.13
+875			3.86	23.71
IP	6.97	31.34	3.10	24.47
Bm			6.37	24.97
16+25-			6.93	24.41
+50			6.60	24.74
H75-			6.47	24.87

Univ. St. No. 3 No. 11/9

SE 1/4
E 1/4

Univ. St. No. 3 No. 11/9
N 1/4 E 1/4

L.S.M
Toward Union St - Nov 2/1897

Sta	+	H.S.	-	Ele
17		31.34	6.20	25.14
+25			6.28	25.06
+50			6.22	25.12
+75			6.08	25.26
18			6.20	25.14
+25			6.19	25.15
+50			6.09	25.25
+75			6.50	25.84
19			4.96	26.98
+25			4.42	26.92
B.M.	2.39	29.237	1.86	29.98
+50			6.10	26.27
+75			5.04	27.33
20			5.33	27.04
+25			6.35	26.02
+50			4.13	28.24
+75			9.54	28.83
21			8.36	29.01
+25			3.64	28.79
+50			4.11	28.26

B.M. 29.98 Union St
 1.20 Road
 31.18 H.S.
 27.00
 4.18

S. Liv. Dist. 27.3 Grade
 Union St NE Nov 15th 1897

St. 11-

12.80-

Mendenhall

Leonard Union A1-N of B Nov 1897

Sta	+	Ht.	-	Elv
21+75		32.37	4.38	27.99
22			5.18	27.19
+25			5.12	27.25
+50			4.95	27.42
+75			4.81	27.56
23			5.01	27.36
+20			4.67	27.70
+40			5.23	27.14
+60			5.15	27.22
B.M. 4302		33.49	2.90	29.47
+80			5.90	27.59
24			5.36	28.13
+25			5.61	27.88
+50			5.50	27.99
+75			5.18	28.31
25			4.88	28.61
+25			4.50	28.99
+50			4.41	29.08
+75			4.07	29.42
26			2.94	30.55
1				

29.47

2.67

32.14

28.76

3.44

29.0

28.7

S.C.M.

CST

S.E. Mendenhall Nov. 16/97

A.C.M.

Mendenhall

Leeward Union St. Nov 16/87

Sta	+	H.I.	-	Elev
26+25		33.49	1.26	32.23
I.P.	8.93	41.51	0.91	32.58
+50			7.52	33.99
+75			5.76	35.75
27			4.53	36.98
+20			3.87	37.64
B.M.	5.46	45.87	1.10	40.41
+40			8.40	37.47
+60			7.86	34.01
+80			7.21	38.66
28+05			6.55	39.32
+30			6.18	39.69
+55			5.50	40.37
+80			5.46	40.41
29+05			5.07	40.80
+30			4.88	40.99
+55			5.11	40.76
+80			5.19	40.68
30+05			5.19	40.68
+30			4.88	40.99

LZ B.M.

Union & B. Nov 17/87

BST

LZ B.M.

Union St - 1915

Asa	+	Hj.	-	Elu
30+55		415.87	4.62	41.25
+80			3.99	41.87
Bm.	5.58	48.65	2.90	43.07
31			7.45	41.20
+20			6.82	42.33
+47			7.08	41.57
+60			6.41	42.24
+85			6.74	42.91
32+10			5.40	43.25
+35			5.38	43.27
+60			4.66	43.99
+84-			4.16	44.49
33+10			3.35	45.30
+39-			3.28	45.37
+60			3.25	45.40
Bm			9.83	39.82

S2 A ST

43.07 NW Union + 2 H.R. in Abv.

A ST

N2 A ST

The image shows an open notebook with two blank pages. The pages are cream-colored with light blue horizontal ruling. The left page features a red margin line near the top and a vertical red line that divides the page into several columns. The right page has a red margin line near the top. The notebook is bound in the center, and the pages are slightly aged. The background is dark, and the notebook is resting on a light-colored surface.

Muskegon
Summit State St. No. of H No. 22 97

Sta	+	H.I.	-	Elev
-----	---	------	---	------

B.M.	9.116	16.69		7.23
1			7.83	8.86
+25			7.16	9.58
+50			6.45	9.44
+75			6.86	10.33
2			6.35	10.84
+25			5.93	10.76
+50			6.05	10.64
+75			5.78	11.51
3			4.51	12.18
+25			3.96	12.79
+50			3.96	12.73
+75			3.28	13.41
4			2.71	13.98
+375			2.13	14.56

L.P.N.

22

Star ST Nov 24 Nov 25

Sta	+	Mi.	-	Elev
4+75		16.69	1.68	15.01
P.M. 8.18		21.65	3.22	13.47
5			6.36	15.29
+25			6.19	15.46
+60			5.87	15.78
+75			5.60	16.05
6			5.29	16.36
+25			5.23	16.42
+50			5.15	16.60
+75			5.08	16.57
7			5.01	16.64
+25			5.14	16.51
+50			4.83	16.82
+75			4.94	16.71
8+12½			4.70	16.95
P.M. 3.59	21.71	3.53	18.12	
+50			5.17	16.54
+75			5.40	16.31
9			5.53	16.18
+25			5.54	16.17
+50			5.13	16.58

Star 9.8 All Star Run Nov 25/87

12F

F 81

N 2 F 81

LBM

Linnæa Station S-N of H Nov 25/17

Sta	+	H.I.	-	Elev
9+75		21.71	4.72	16.99
10			4.29	17.42
+25			4.07	17.64
+50			3.94	17.77
+75			3.57	18.14
11			3.40	18.31
+25			3.23	18.48
+50			3.16	18.55
I.P.	5.91	25.35	2.27	19.44
Bm.			3.26	22.09
+47.5			6.81	18.54
Bm.	3.24	25.32		22.18
12+25			6.24	19.48
+50			6.10	19.22
+75			5.90	19.42
13			5.52	19.80
+25			4.91	20.41
+50			4.82	20.50
+75			4.66	20.66
14			4.40	20.92

Stacy E. Hydrant

B.M.

Turned Station 11 of H. 111361

Sta	+	Ht.	-	Elev
14+25		25.32	4.17	21.15
+50			3.93	21.39
+75			3.93	21.39
15			3.77	21.55
+25			3.41	21.91
+50			3.15	22.17
+75			2.09	23.23
16			2.56	22.76
+25			3.33	21.99
+50			2.63	22.69
B.M.			2.34	22.94
B.M.	3.44	24.47		28.03
16+74			5.32	22.95
17			5.68	22.84
+25			5.78	22.69
+50			5.57	22.90
+75			5.23	23.24
18			4.98	23.49
+25			4.91	23.56
+50			4.79	23.68

S. 2 2 87

N. 2 2 87
Station 4 B. 78. 1/2 mile in 67. 1/2 mile

Mendenhall

Leonard Staun 11 Nov 1930

Sta	+	Ht.	-	Elev
18475		28.47	4.86	23.61
19			4.72	23.76
+20			4.42	24.05
+40			4.75	23.72
+60			3.74	24.73
+80			4.48	24.99
20			3.21	25.23
B.M.	4.41	29.44		25.03
+25			4.70	24.74
+45			4.54	24.90
+75			4.46	24.98
21			4.35	25.09
+25			4.58	24.86
+50			4.53	24.91
+75			4.46	24.98
22			4.16	25.28
+25			4.07	25.37
+50			3.99	25.45
+75			3.88	25.56

12 C 81

C 81

13 C 81

Staun + C 10 SPR in post Nov 30

B.M.

Lunard Stati St No. A Nov 30

Sta	+	Hi.	-	Elev
23		29.44	3.81	25.63
+20			2.76	24.68
+40			1.77	27.67
+60			1.67	28.77
I.P.	10.79	39.53	0.70	28.74
+80			10.08	29.45
24+05-			8.62	30.91
+30			7.83	31.70
+55			7.12	32.41
+80			6.60	32.88
25+05-			5.89	33.64
+30			5.04	34.49
+55			4.27	35.26
+80			3.78	35.75
25+05-			3.73	35.80
+30			4.41	35.12
+55			4.26	35.27
+80			4.01	35.53
B.M.			0.40	39.13

22 B 31

B 31

18 B 31

99.14

22 X 50

Stati + A Hydrom

Bm

24 Station 31 - Nov 11 2/197

Sta	+	Ht.	-	Elev
-----	---	-----	---	------

Bm	2.94	42.07		39.13
27			6.42	35.65
+20			5.59	36.48
+40			5.94	36.13
+60			5.26	36.81
+85			5.49	36.58
28+10			5.60	36.47
+35			5.24	36.83
+60			4.83	37.24
+85			4.19	37.88
29+10			3.49	38.58
+35			3.69	38.48
+60			6.25	35.82
Bm	7.10	40.01		32.91
+85			6.78	33.83

Station B. Hydrom. 18

A 31-

N 31-

Born Columbia St. N. 47
 Dec 5, 1877

Sta	+	Hs.	-	Elev
1				
Born	10.34	14.05		3.71
+25				
+51				
+75			7.25	6.80
2			6.99	7.06
+25			6.56	7.49
+51			6.31	7.74
+75			5.95	8.10
3			5.48	8.62
+25			5.09	8.96
+51			4.86	9.69
+75			4.24	9.81

SW side of Paley St Columbia

SW Columbia St. N. of A. Dec 5/87

Sta	+	Sta.	-	Elev
4		14.05	4.17	9.98
+375			3.28	10.77
+75			3.62	10.43
B.M.	6.00	16.92	3.13	10.92
5			5.36	11.56
+25			5.37	11.55
+50			5.51	11.41
+75			5.08	11.84
6			4.72	12.20
+25			4.66	12.26
+50			4.60	12.32
+75			4.82	12.60
7			4.09	12.83
+25			4.16	12.76
+50			3.88	13.04
+75			3.68	13.22
+125			3.24	13.68
+50			3.92	13.00
B.M.	6.03	4	3.41	13.51

SW Columbia St. N. of A.

SW Columbia St. N. of A.

23
Columbia Hill # 21071

Sta	+	H.I.	-	Elev.
Bm.	6.03	19.54		13.57
+75			6.53	12.99
9			6.52	13.02
+25			6.49	13.05
+30			6.16	13.38
+75			6.78	13.76
10			5.50	14.04
+25			5.70	13.84
+50			6.01	14.53
+75			5.20	14.34
11			4.92	14.62
+25			5.10	14.54
+50			4.88	14.71
+87 1/2			4.95	14.69
12+25			4.49	15.11
Bm.	7.33	22.14	4.73	14.81
+50			6.78	15.36
+75			6.55	15.59
13			5.98	16.16
+25			5.60	16.48

Columbia # 21072

13.00

S 7 E 37

E 87

N 7 E 37

Columbia # 2

Mendenhall

Summit Columbia north sec 7/87

Sta	+	Tri.	-	Elev
13+50		22.14	5.68	16.46
+75			5.56	16.58
14			5.69	16.45
+25			5.48	16.66
+50			5.33	16.81
+75			5.42	16.72
15			5.54	16.60
+25			5.61	16.53
Bottom	5.17	23.71	3.50	18.64
+50			6.96	16.75
+75			5.75	17.96
16			5.98	17.73
+25			7.00	16.71
+50			6.17	17.58
+75			5.50	18.21
17			5.15	18.56
+25			4.88	18.83
+50			4.46	19.25
+75			4.50	19.21
18			4.71	19.00

Summit Columbia north sec 7/87
 Columbia north SF Oct 6 1887

117 531

L.M.

22

Columbia St 9/9/57

Sta

18+25		23.71	4.89	18.83
+50			3.65	20.05
+75			3.73	19.98
19			3.42	20.29
+20			2.63	21.08
+40			2.97	20.74
P.M.	3.34	25.65	1.40	22.31
+60			4.62	21.03
+80			5.74	19.91
20			6.10	20.55
+25			6.16	20.49
+50			5.02	20.63
+70			6.07	20.58
21			4.77	20.89
+25			6.04	20.61
+50			5.20	20.45
+75			6.44	20.21
22			7.00	18.65
+25			8.63	17.10
+50			8.29	17.36

4.92

S I C B I

S B Columbia + C

C B I

N I C B I

L.P.M.

99 Columbia St. 142 9.9.15

Stn	+	As.	-	Elv
22175		25.65	7.93	17.72
29			8.14	17.51
R.M.	8.11	19.16		11.05
T.P.	7.30	25.49	0.97	19.19
+20			5.67	19.82
+40			5.90	19.59
+60			5.66	19.83
+80			5.79	19.70
24+05			5.91	19.58
+30			5.28	20.23
+53			4.85	21.14
+80			3.65	21.84
25+05			4.01	21.48
+30			3.01	22.48
+55			2.34	23.15
+80			1.05	24.44
26+05			0.50	24.99
T.P.	8.89	34.02	0.36	25.13

S 2 B 31

R 4 Columbia St. W. of Ave.

Ave. 9 B. 9th St.

Sec 13/87 17.45 5.04

B 31

N 2 B 31

L.B.M.
Sierra Columbia St. Mt. 20 1911

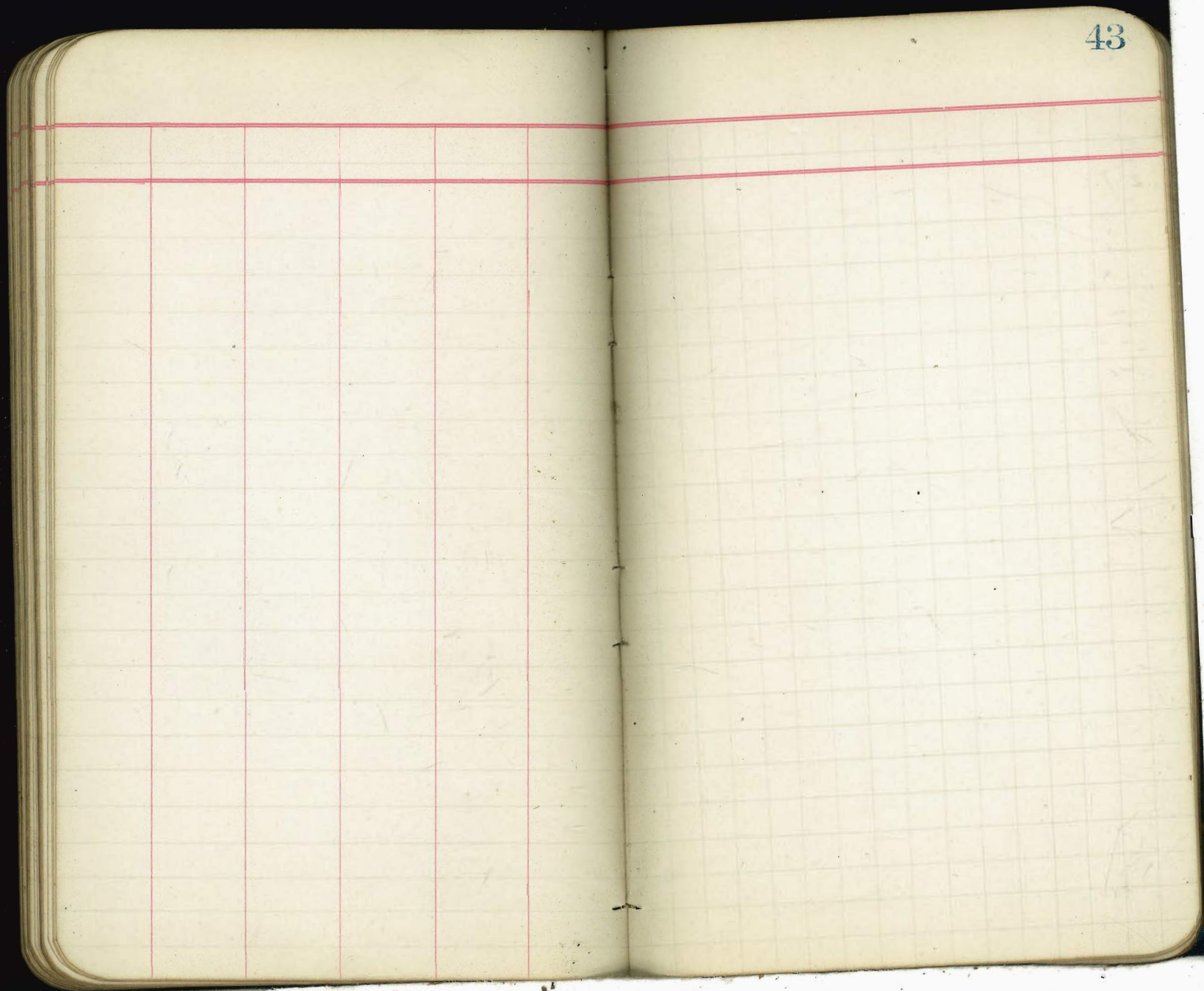
Sta	+	Ht.	-	Elev
26+30		34.02	8.49	25.53
+53			8.13	25.49
+80			7.43	26.59
27			7.62	26.40
+20			7.18	26.84
+40			7.83	26.19
+60			6.88	27.64
+85			5.52	28.50
28+10			4.64	29.38
+85			3.85	30.17
+60			3.40	30.62
+85			3.01	31.01
29+10			3.09	30.93
+85			3.58	30.44
+60			4.62	29.40
+85			5.58	28.44
30+10			5.83	28.69
+33			6.01	29.02
+60			4.66	29.36
B.M.			2.06	31.96

32+21

4-21

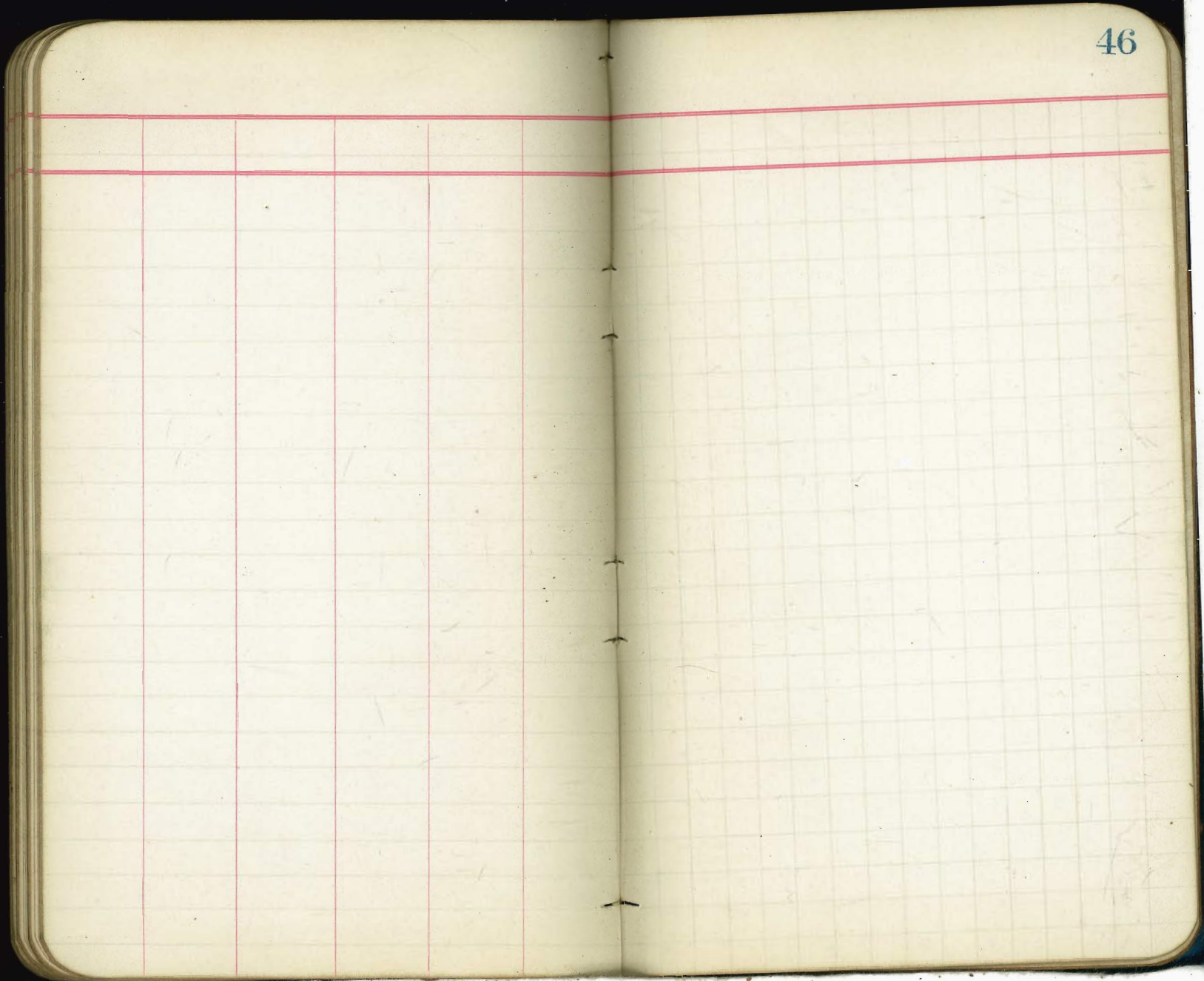
12+21

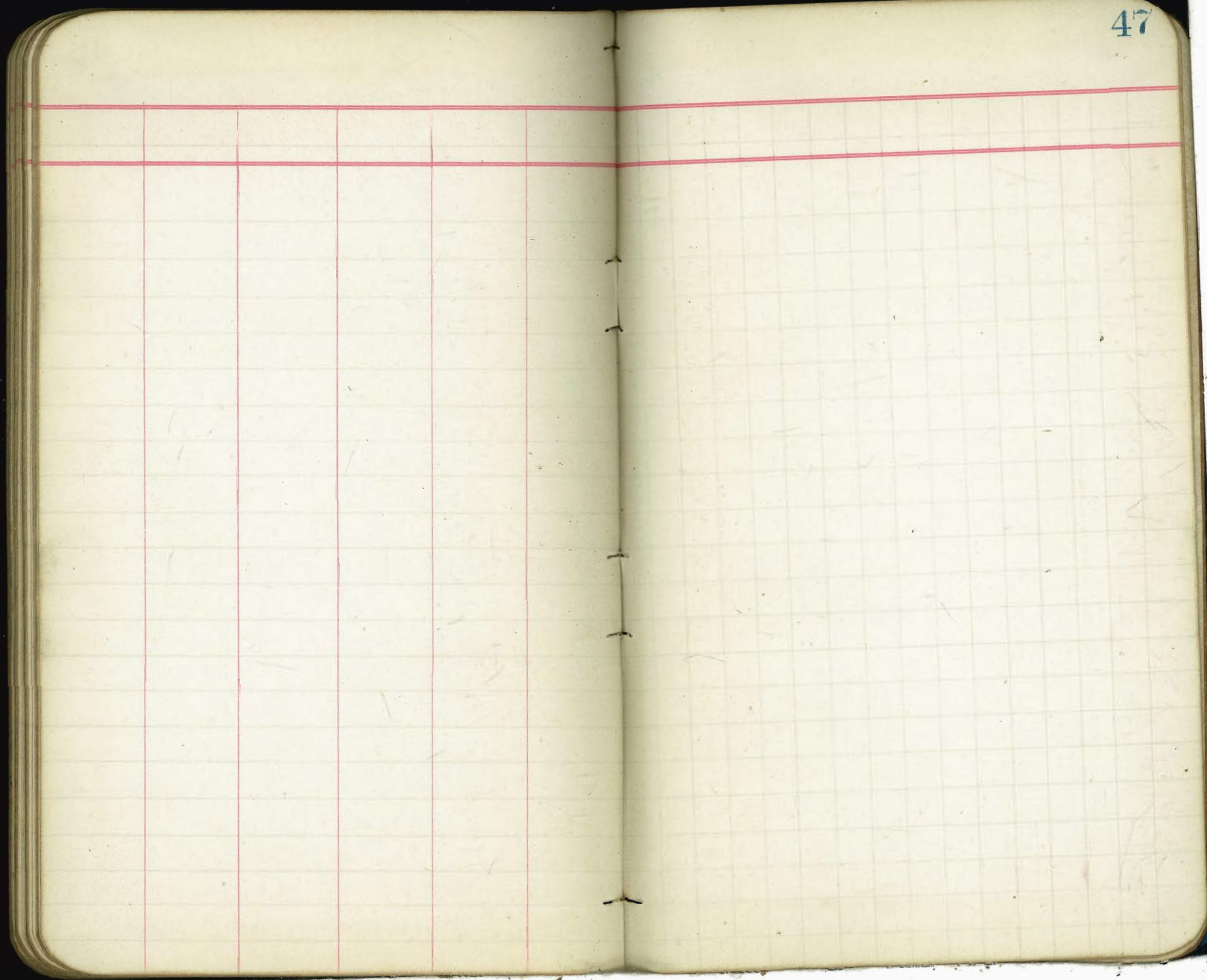
12 Ast
Columbia Ast

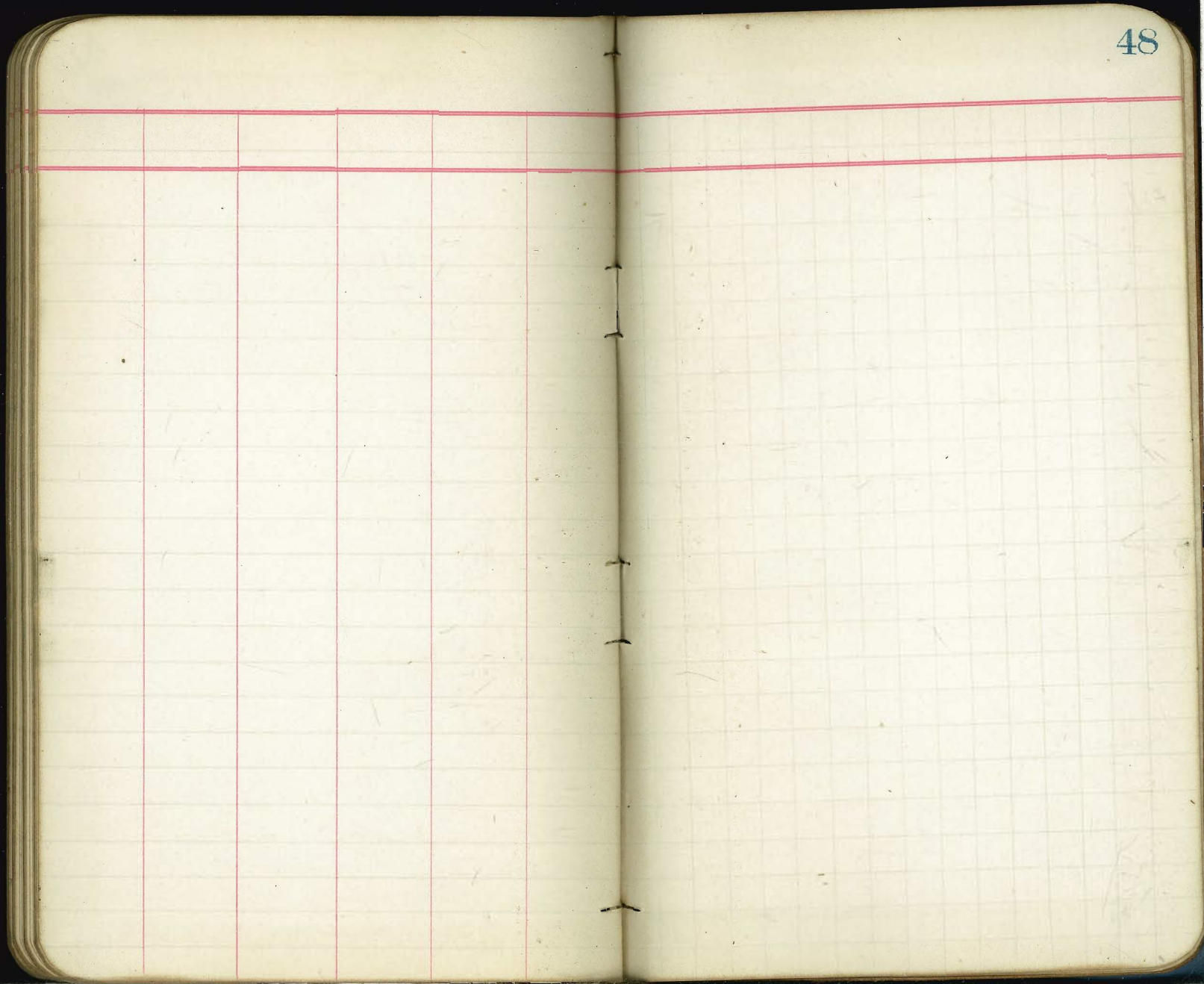


The image shows an open notebook with two pages. The left page is ruled with a grid of red lines, creating a table with 6 columns and 18 rows. The right page is ruled with horizontal blue lines and a vertical red margin line on the left side. The number '44' is printed in the top right corner of the right page. The notebook is placed on a white surface, and the background is dark.

The image shows an open notebook with two blank pages. The pages are cream-colored and feature a light blue grid pattern. The left page has a vertical red margin line on the left side and two horizontal red lines near the top. The right page has a vertical red margin line on the right side and two horizontal red lines near the top. The notebook is bound in the center, and the pages are slightly aged. The number '45' is printed in the top right corner of the right page.







The image shows an open notebook with two pages. The left page is ruled with a grid of red lines, creating a table with 6 columns and 18 rows. The right page is ruled with horizontal lines and has the number 49 in the top right corner. The notebook is placed on a white surface, and the background is dark.

Sta	+	Hs.	-	Elev
Bm.	0.73	8.16		7.43 49K
+27			6.16	2.00
+52			6.23	1.93
+77			6.16	2.00
1+02			5.58	2.68
+27			5.06	3.10
+52			4.48	3.68
+77			4.07	4.09
2+02			3.90	4.26
+27			3.42	4.74
Bm.	1.28	8.71		7.43
+52			3.46	5.25
+67			3.80	4.97
+82			3.23	5.48
+97			2.91	5.80

Samuel Adams Morris

34 1/2
6 1/2
94

3693
4 + 7 8 + 7 3/4
1/2 1/2 1/2

6964
977
6047

221

106.09
96.80
9 79

TRAVERSE TABLE FOR TRANSIT BOOK,
From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	84
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	83
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	82
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	81
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	80
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	79
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	78
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	77
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	76
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	75
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	74
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	73
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	72
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	71
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	70
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	69
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	68
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	67
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	66
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	65
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	64
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	63
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	62
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	61
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	60
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	59
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	58
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	57
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	56
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	55
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	54
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	53
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	52
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	51
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	50
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	49
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	48
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	47
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	46
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	45
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	44
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	43
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	42
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	41
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	40
45	70.71	70.71							39
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		

Published by Edward Denny & Co., Stationers, Drawing Materials,
Mathematical Instruments, Etc., San Francisco.