

London 1857

by [unclear]

2

F.B. 624

624

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.

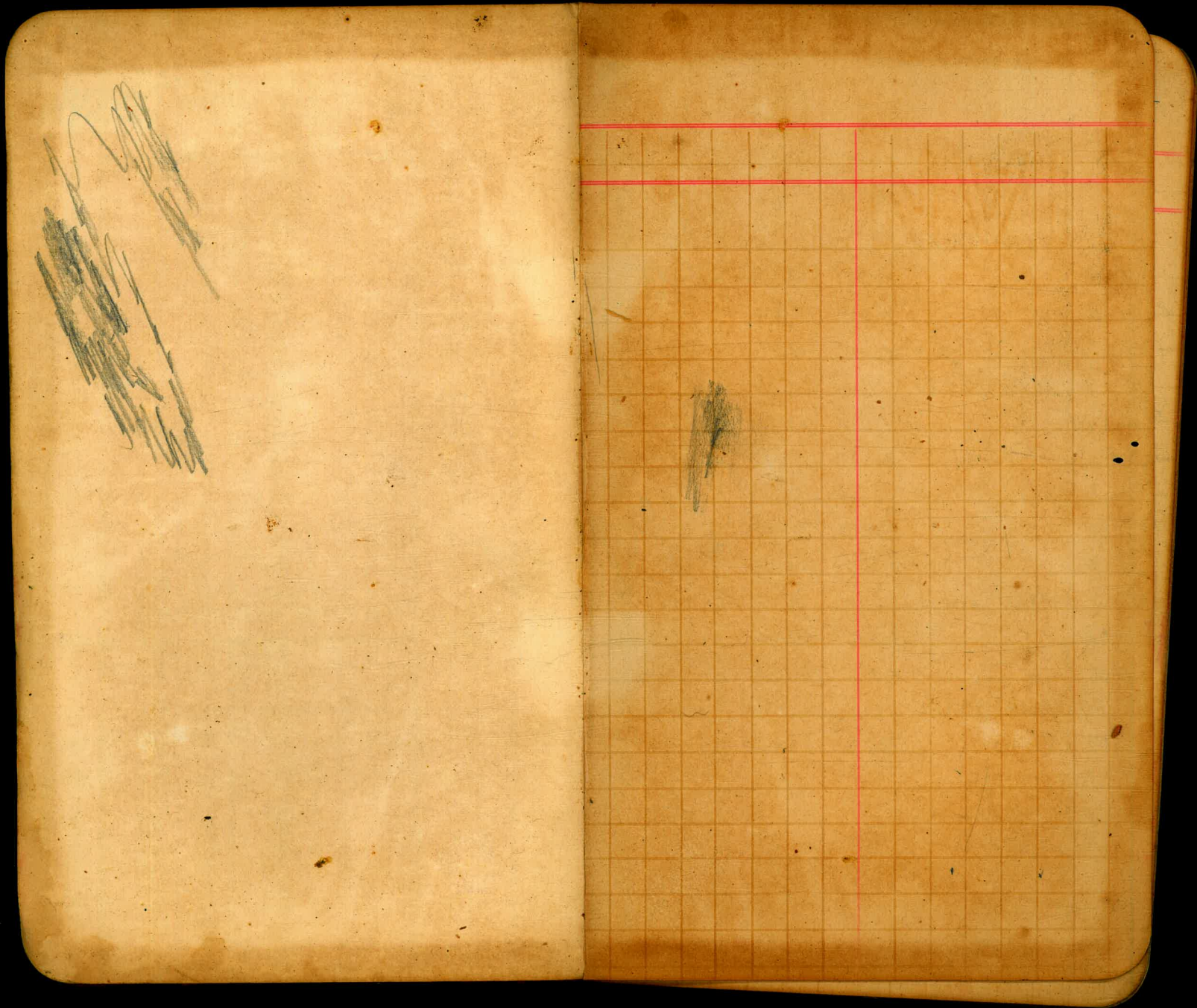
Angle.	Cor. in links	Angle.	Cor. in links.	Angle.	Cor. in links.	Angle.	Cor. in links.
0		0		0		0	
4	0-24	11	1-88	18	5-14	25	10-54
5	0-38	12	2-24	19	5-76	26	11-26
6	0-55	13	2-63	20	6-42	27	12-24
7	0-76	14	3-06	21	7-11	28	13-37
8	0-98	15	3-53	22	7-85	29	14-34
9	1-24	16	4-02	23	8-64	30	15-47
10	1-55	17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

Contours Lines

City Park

Miller (Level)





Bill (200)

Δ	+	H.I.	-	Bill
			a' of F	
	18.85	191.64		175.79
a' 1			16.70	174.91
a' 2			2.50	189.14
T.P.			0.14	191.50
	16.30	207.80		
a' 2.50			5.70	202.10
T.P.			0.04	207.74
	16.11	223.95		
a' 3			7.60	216.35
T.P.			0.95	223.00
	13.91	236.91		
a' 4			5.50	231.41
T.P.			1.37	233.54
	5.77	239.31		
a' 5			36.8	235.68

Oct 11/87

1

Remarks

B.M. on rock left S.T.

Helium (Rod)

Miller (level) B. Woodruff & W. V. Grier. Chain

Δ	+	H.I.	-	Lo	B.M.
			8' of S.		
	1311	188.90			175.79
B'1			9.80	179.10	
T.P.			0.28	188.62	
I	1336	201.98			
B'2			12.88	189.10	
T.P.			0.08	201.90	
I	1564	217.54			
B'3			9.40	208.14	
T.P.			0.05	217.49	
I	1601	233.50			
B'3+50			11.10	222.40	
B'4			3.50	230.00	
T.P.			0.45	233.05	
I	1481	247.86			
B'5			7.00	240.86	
B'6			5.30	244.56	
B.M.			2.80	245.06	

Oct. 11/87

2

B.M. on rock left of Δ 5.9160

B.M. on top of stake B'6

Miller (Level)

Δ	+	H.I	-	66m	BM
			0' of 8		
	16.18	208.33			192.37
c' 1.			11.60	196.95	
T.P.			0.71	207.84	
T	14.25	222.09			
c' 1+50			17.80	204.29	
c' 2			5.60		
T.P.			0.10	221.99	
	15.50	207.19			
c' 3.			7.00	230.49	
T.P.			0.7	237.52	
	3.84	241.16			
c' 4.			4.20	236.96	

Oct 11/87

3

Remarks

B.M. on rock left of S 12+40

Holler (Level)

Δ	+	MI	-	Cor. BM
	1567	160.33		144.66
			h of D	
h 1			14.80	145.53
h 1+50			10.20	150.13
h 2			7.20	157.13
T.P.			0.53	159.80
	15.20	175.60		
h 3			6.60	169.00
T.P.			0.30	175.30
	15.00	190.30		
h 4			10.60	179.70
T.P.			0.30	189.97
	14.05	204.02		
h 5			7.30	196.72
T.P.			0.22	203.80
	14.61	218.41		
h 5+50			12.40	206.01
T.P.			0.26	218.15
	14.51	232.66		
h 6			11.60	221.06
T.P.			0.18	232.48
	16.24	248.72		

Oct 14/87

4

Remarks

T.M. on top of stake D. 35

Mouth of Canyon

Hills (Level)

Oct 11/87

Δ	+	HI	-	6to	Remarks
16+80		248.72	11.60	237.12	
i. 7			8.20	240.52	
		<u>i of D.</u>			
	14.21	162.91		148.70	B.M. on top of stake Δ D 38
i. 1			11.00	151.91	
T.P.			0.10	162.81	
	15.61	178.42			
i. 2			20.50	157.91	
i. 3			13.30	165.12	
i. 4			8.00	170.42	
14+40			6.00	172.42	
T.P.			0.16	178.26	
	14.35	192.61			
i. 5			16.00	176.61	
B.M.			40.3	188.58	B.M. on rock left of Δ i 5 (on ridge)
i. 6			11.00	181.61	
i. 6+50			7.40	185.21	

Wells (cont)

Oct 12/54

Remarks

A	+	H.L.	-	f.d.	M
		16.10	204.68		188.58
a i. 7.			15.90	188.78	
a i 7+28			11.00	193.68	
			<u>a' of i</u>		
a i 7		16.10	204.68		188.58
T a' 1			24.90	179.78	
a' 1+65			15.70	188.98	
			<u>j of ID</u>		
		16.20	164.90		148.70
j 1			4.00	160.90	
T I.P.			0.10	160.80	
		13.73	174.53		
j 2			4.70	169.83	
j 2+67			4.00	170.53	

B.M. on rock left of Δ in 3.

Δ 132 of Boundary line - i 7+28

B.M. on rock Δ i. 5

Boundary of Park

B.M. on top of Δ 38

Δ 126 of Boundary line - j 2+67

Hiller (Lind)

Δ	+	H.I.	-	Ch.	Dist.
		1250	178.71	<u>K of D</u>	166.21
K 1			7.90		170.81
T.P.			0.26		178.45
		14.28	192.75		
K 2			6.60		186.13
T.P.			0.35		192.37
		15.37	207.74		
K 3			8.45		199.29
T.P.			00-0		207.74
		14.17	221.91		
T.P.			0.10		221.81
		16.27	238.03		
K 4			22.40		215.68
K 4+50			0.05		238.03
		14.37	252.40		
K 5			8.25		244.15

Oct 12/87

Remarks

B.M. on top of TD 47

Hiller (Level)

Oct 13/87

Δ	+	M.I.	-	Elv	B.M.
			V of D		
Δ	13.35	186.02			172.67
L1			11.70	174.32	
L2			9.00	177.02	
L3			5.00	181.02	
T.P.			1.00	185.02	
	12.70	197.72			
L4			14.00	183.72	
L5			7.50	190.22	
L6			5.60	192.12	
T.P.			0.00	197.72	197.72
	14.84	212.56			
L7			14.20	198.36	
L8			11.50	201.06	
B.M.			0.00	212.56	
	14.36	226.92			
L9			21.00	205.92	
L10			15.80	211.12	
L11			12.50	214.42	
B.M.			2.81	224.11	224.11
L12			8.70	218.22	
12750			5.20	221.72	

Remarks-

B.M. top of stake 116 on East Boundary

B.M. on rock near Δ L 6.

B.M. on big rock on side of hill.

B.M. on big rock on red hill

Miller (Level)

9

Δ	+	WT	-	lbs
		226.92		
T.P.			0.70	226.22
	16.20	242.42		
L. 13			17.10	225.32
L. 14			15.40	227.02
L. 15			7.80	234.62
L. 16			5.70	236.72
T.P.			0.40	242.02
	16.25	258.27		
L. 17			15.90	242.37
L. 18			10.00	248.27
T.P.			1.01	257.26
	15.96	273.22		
L. 19			18.00	255.22
L. 20			1.08	272.14
L. 20			9.60	263.62
T.P.			1.30	271.92
	11.98	283.90		
L. 21			11.60	272.30
L. 21+26			10.00	273.90
	7.10	279.24		272.44
L. 22			8.97	270.27

Oct 13/67

Remarks

on north

Δ 99 of Boundary line 8' north of Δ L. 21+26

B.L. on top of h. 8. 269.69

Miller

Oct. 13/87

Δ	+	H.T.	-	Obs. Δ	Remarks
	14.11	211.83	a' of L	197.72	
a' 1			12.50	199.33	
a' 2			3.30	208.53	
T.P.			0.05	211.78	
	16.40	228.18			
a' 3			1.01	227.67	
T.P.			0.10	228.08	
	15.51	243.59			
a' 4			0.00	243.59	
		<u>6' of L.</u>			
	11.21	235.32		224.11	
b' 1			13.20	222.12	
T.P.			0.16	235.76	
	13.30	248.46			
b' 2			14.20	234.26	
T.P.			2.10	246.36	
	10.10	256.26			
b' 3			9.00	247.46	
b' 4			4.30	253.16	
B.M.			3.62		

B.M. on rock near Δ 6.6B.M. on rock near Δ 6.14B.M. on top of Δ 6.4

Contour Lines
in
Switzer Canyon

Δ	+	H.I.	-	Elev.
	8.71	78.89		70.18
C.O.			15.61	63.28
T.P.			0.77	78.12
Δ 1.	12.10	90.21		
			2.75	87.45
	3.30	90.82		
B.M.				24.61

Switzer Canyon

11

Oct 14/07

Remarks

Sp in 1st set of elev above Milk ranch



Contour Lines
in
Switzer Canyon

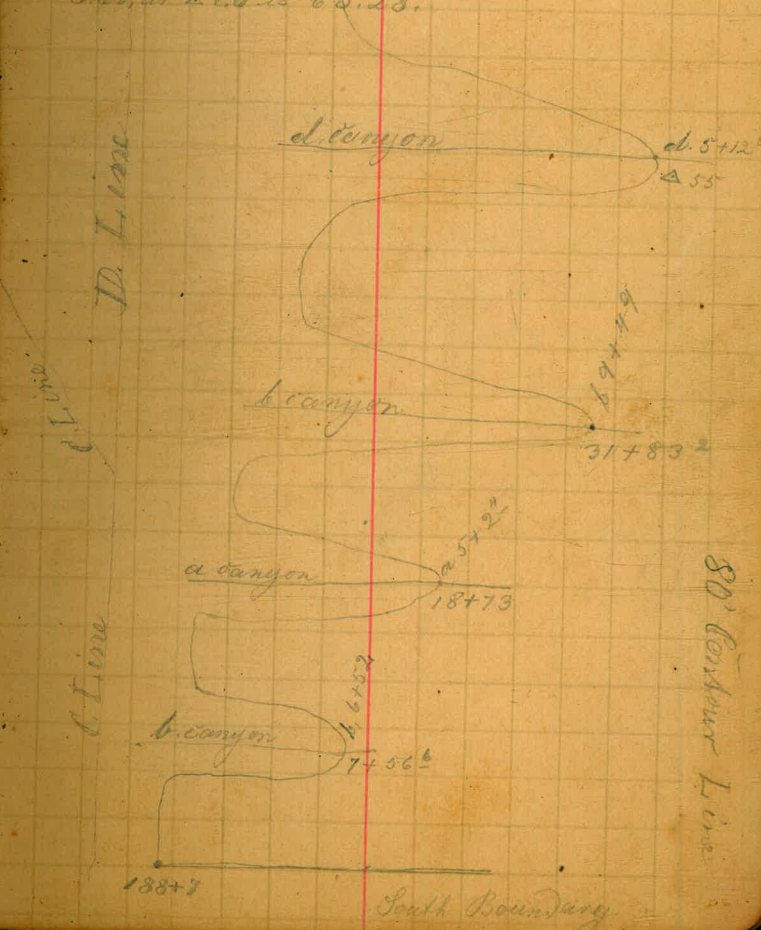
Line	1 st Δ	Elev.	Last Δ	Intersect with
20'	191+71	85.28	6+23 ⁵	69
40'	191+10	103.28	26+70	D14+78 ³
60'	190+26	123.28	42+74	D25+37 ²
80'	188+7	143.28	67	D34+75
100'	185+25	163.28	106	D45+49
120'	185+49	183.28	81+5 ²	Boundary 144
120'	142+21 ⁵	183.28	35+98	" 126+57 ⁵
120'	125+95 ⁵	"	5+50	" 120+2 ³
120'	119+43	"	1+48	" 118

East Side of D Canyon

80' Contour Line on D Canyon

27
D34+75

B.M. in old job above North mouth.
Elev. at a 60 is 68.28.



Indorse line
of

100' Line with Base line of Canyon

	\triangle Base L	\triangle Contours
b	8+6	7+60
a	5+70	20+43
b	12+56	55+31
d'	1+33	58+62
d	3+39	45
b'	1+90	68+50
d	15+13	75+63
a'	2+16	85
g	2+17	89+83
i	3+10	97
f	1+20	101

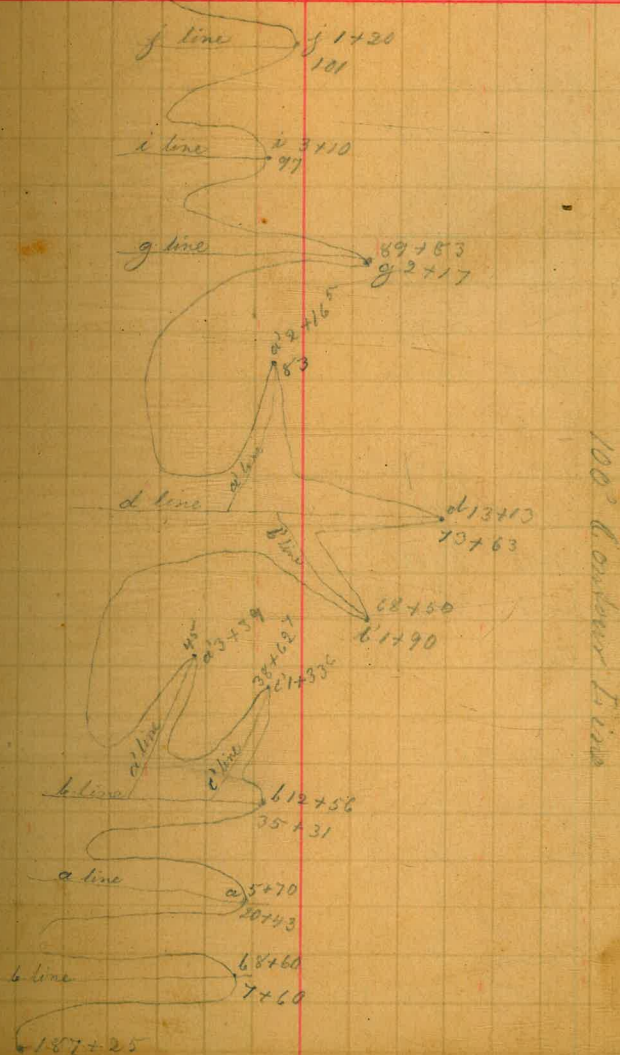
Branches of b Canyon

15

106
D. 45+49

West Side of D Canyon

100' Contour Line



Contour Lines
WEST SIDE of ID Canyon

15

Line	1 st Δ Boundary	Elev.	Last Δ	Interpolation at last Δ
20'	197+33 ⁵	83.28	19+17	D 2181
40'	203+28	103.28	66+49	D 14+78 ²
60'	207+70	123.28	113+46	D 25+37 ³
80'	206+19	143.28	173+13 ⁴	34+75
100'	—	163.28	234+70	D 45+49
120'	—	183.28		

Δ O. on 80' Line is 36 feet North from 206719 in
South Boundary Line

Δ O. 100' Line is 110⁵ West of A 8 in 80' Line

Δ O. 120' Line is 110' West of Δ 5 in 100' Line

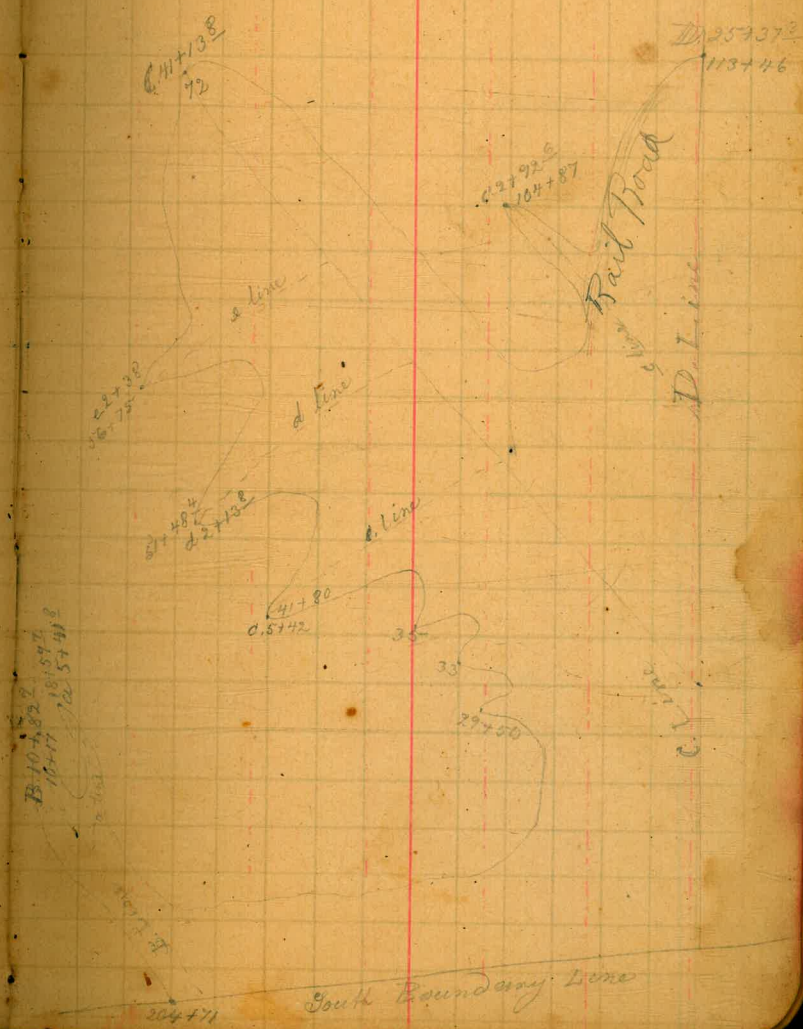
WEST Side
 Intersections of 60' Contour Line
 with Base Lines

	Base Line	Contour Line
S. Boundary	204+71	0
B	10+82	10+17
a	5+42	18+59
c	5+42	41+80
d	2+13	51+48
e	2+38	56+75
C	41+13	72
c	2+92	104+87
D	25+37	113+46

Star from 98 to 113+46
 destroyed by R.R.

WEST Side
 60' Contour Line
 E. L. 123.28

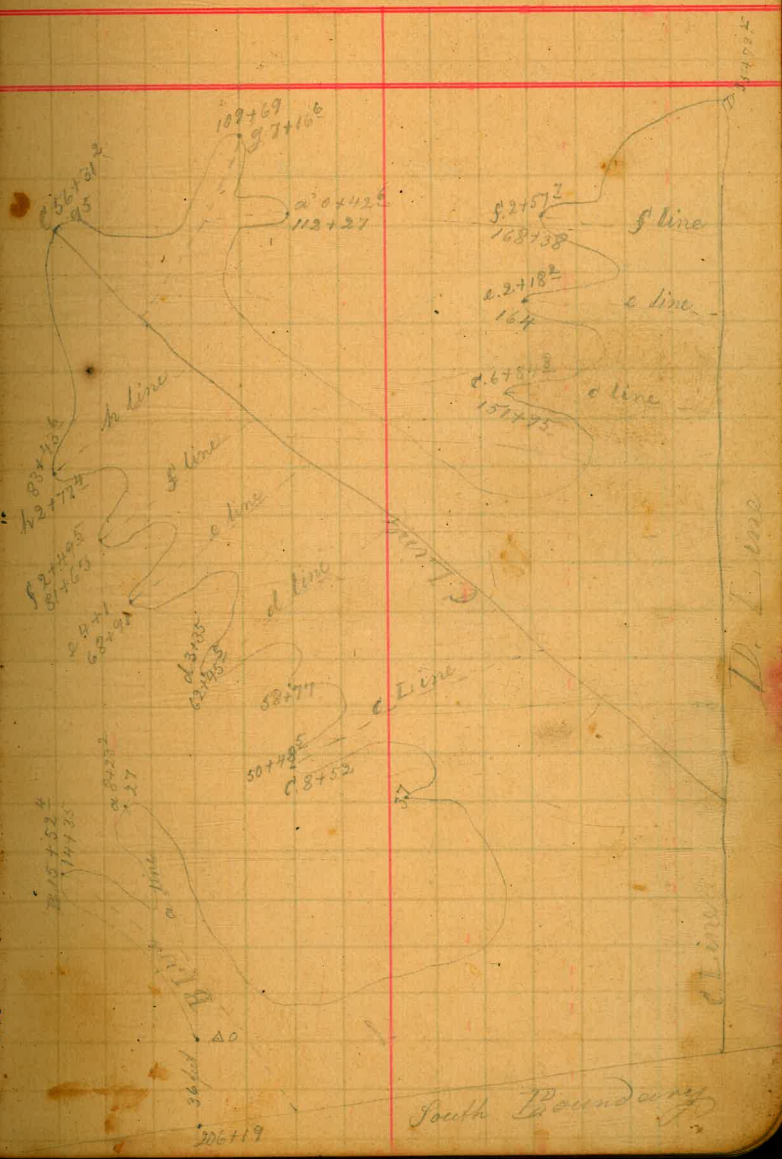
16



W.E.S.T. Scale
 80' Contour Line
 Intersections

E. No. 143.28

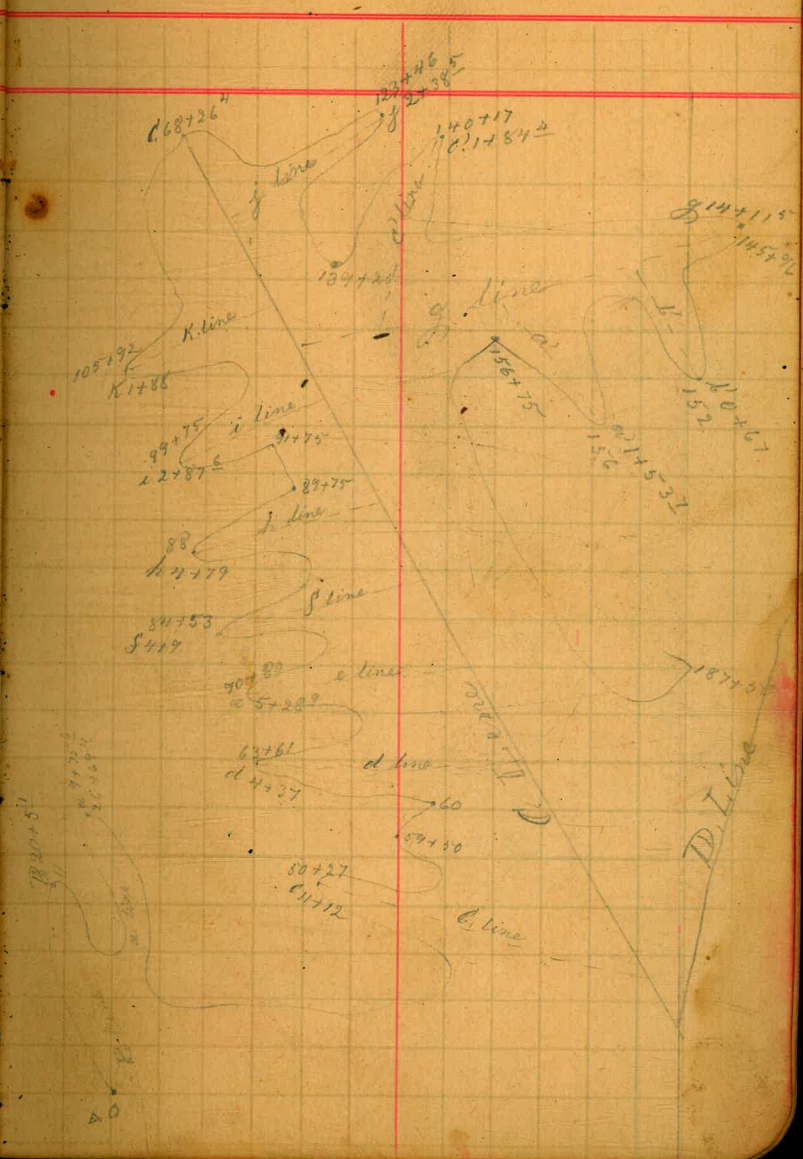
	Δ_m	Δ_n
	Baseline Contour L.	
	A 0 is 36' North of 206119 in S. Boundary	
B	15+52 ⁴	14+35 ⁵
a	8+23 ²	27
c	8+52	50+48 ²
d	3+35	62+45 ²
e	4+1	68+91
f	2+49 ⁵	81+63
h	2+77 ⁴	85+73 ⁶
i	56+31 ²	95
g	7+16 ²	109+68
a'	0+42 ⁶	112+27
c	6+84 ⁸	157+95
e	2+18 ²	164
f	2+57 ⁷	168+38
D line	34+75	173+13 ⁴



100' Contour Line
Intersections

Elev 163.28

	Δ in Pass	Δ in Contour	
			ΔO is $110^{\circ}5'$ West of ΔE in $80'$ Line
B	20+15	11	
a	9+75 ⁶	26+68 ²	
c	11+12	50+27	
d	4+37	63+61	
e	5+28 ⁹	70+20	
f	4+9	84+53	
h	4+79	88	
i	2+57 ²	99+75	
k	1+88	105+92	
C	68+26 ⁴	111+92	
j	2+38 ⁵	123+46	
c'	1+84 ²	140+17	} branch of B
g	14+11 ⁵	145+96	
l	0+67	152	} branches of g
a'	1+53 ²	156	

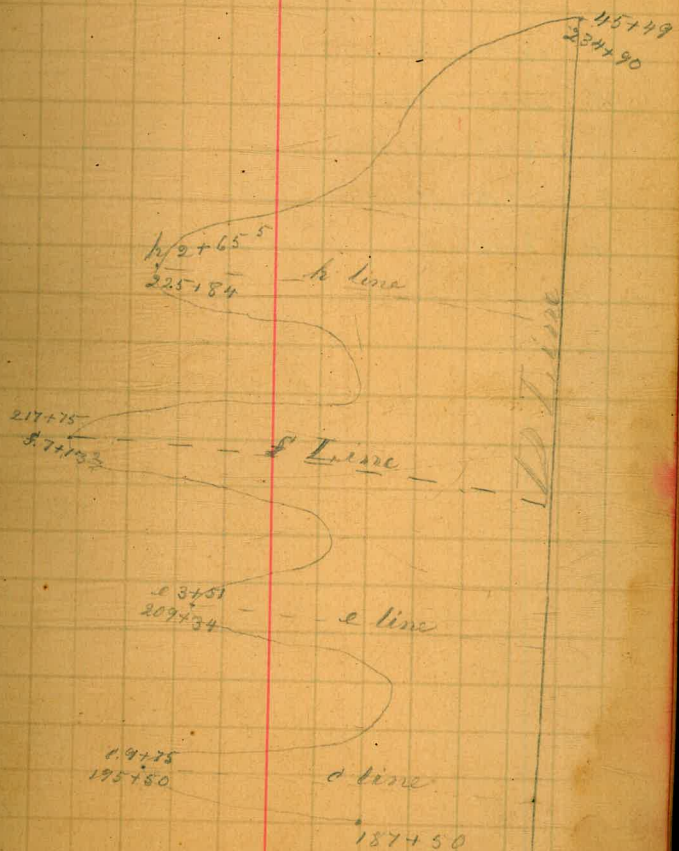


100' Contour Line
Intersections Continued

19

Elev. 163.28

d	9+75	195+50
e	3+51	207+34
f	7+13 ²	217+75
h	2+65 ⁵	225+84
D	45+49	234+90



WE. ST Side
120' Contour Line
Intersections

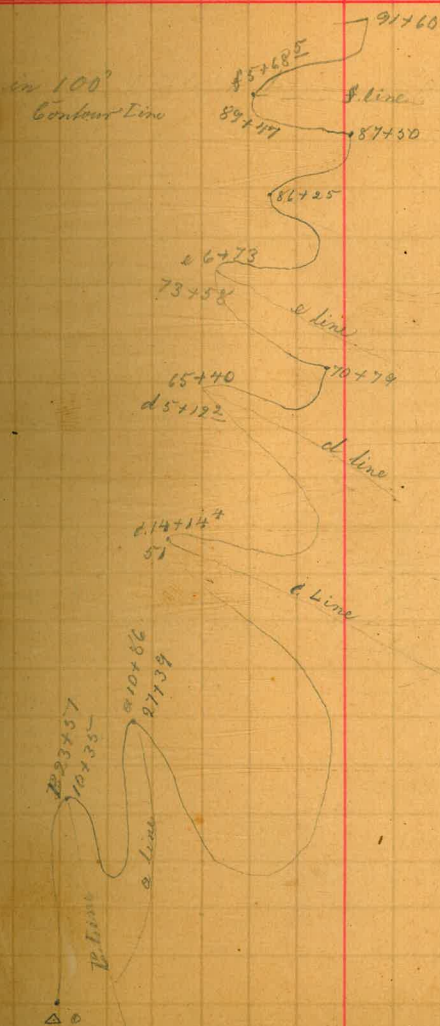
	Δ in Base L	Δ in Contour
--	--------------------------	---------------------------

Δ O. commences 110 feet West of Δ 5

B	23+57	10+35
C	14+14 ⁷	51
d	5+12 ²	65+40
e	6+73 ²	73+58
f	5+68 ⁵	89+47
h	7+15	95
i	4+50 ⁵	108+48
k	2+96	114+73

20

Elev. 1875.28



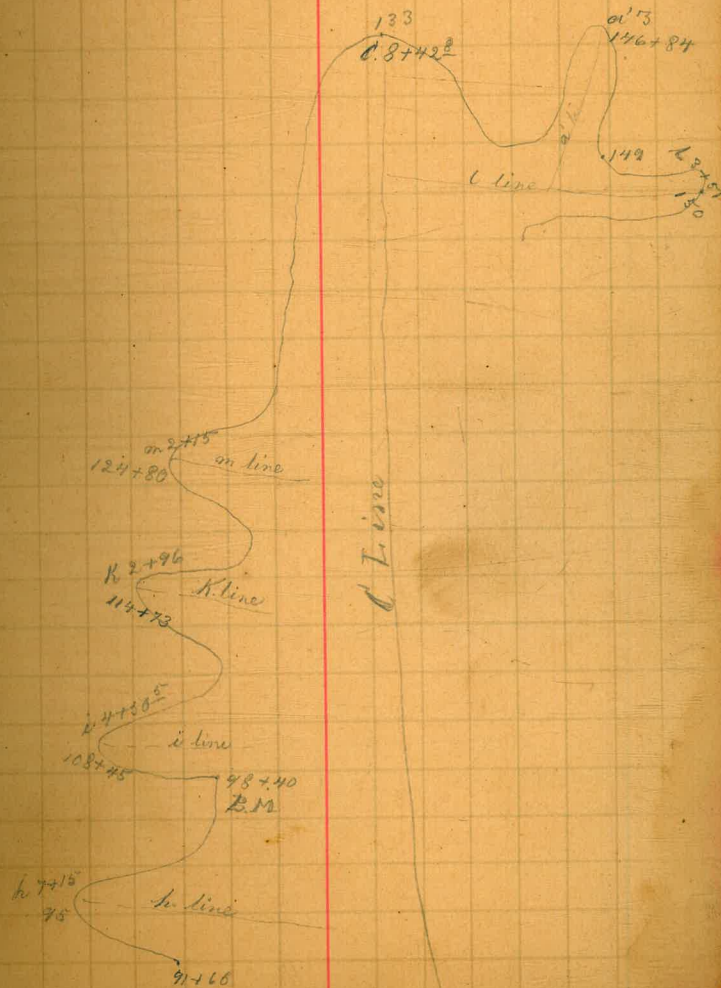
West Side
120' contour I. line

Intersections

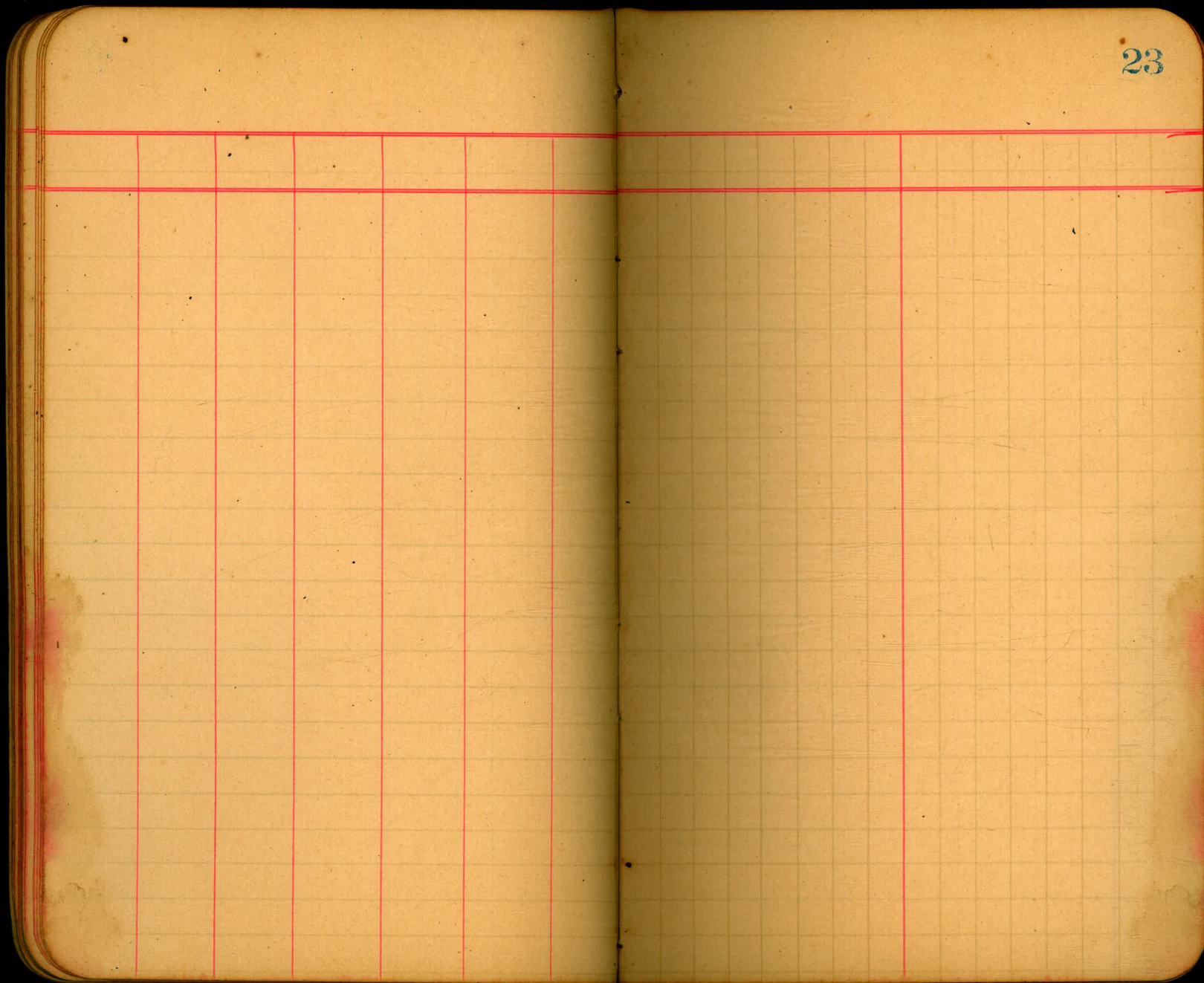
a' 3 146+84

l 3+57 150

21



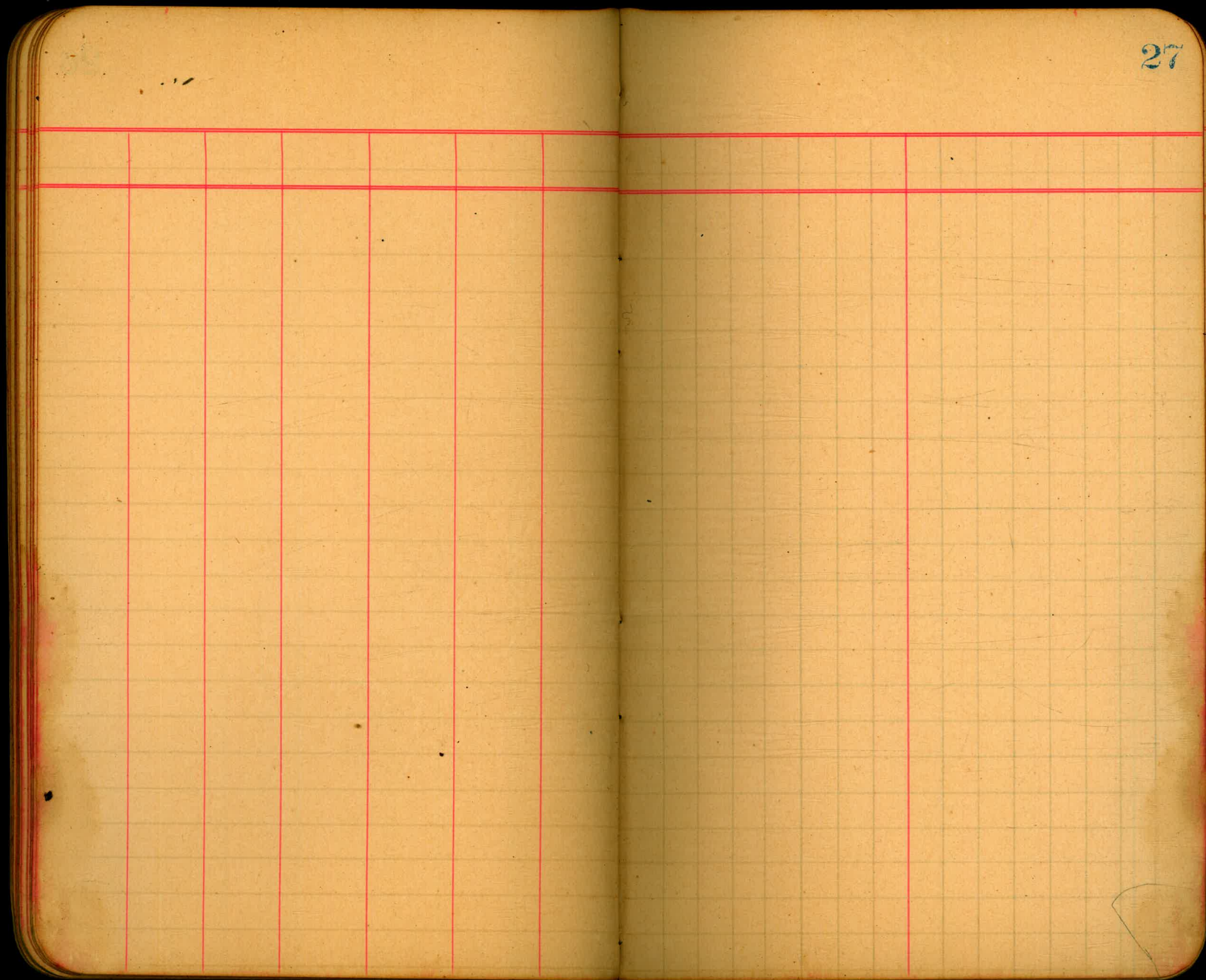
An open notebook with two facing pages. The pages are cream-colored and feature a light blue grid pattern. The left page has a vertical red line on the left side, and the right page has a vertical red line on the right side. The pages are otherwise blank. The number '22' is printed in the top right corner of the right page.

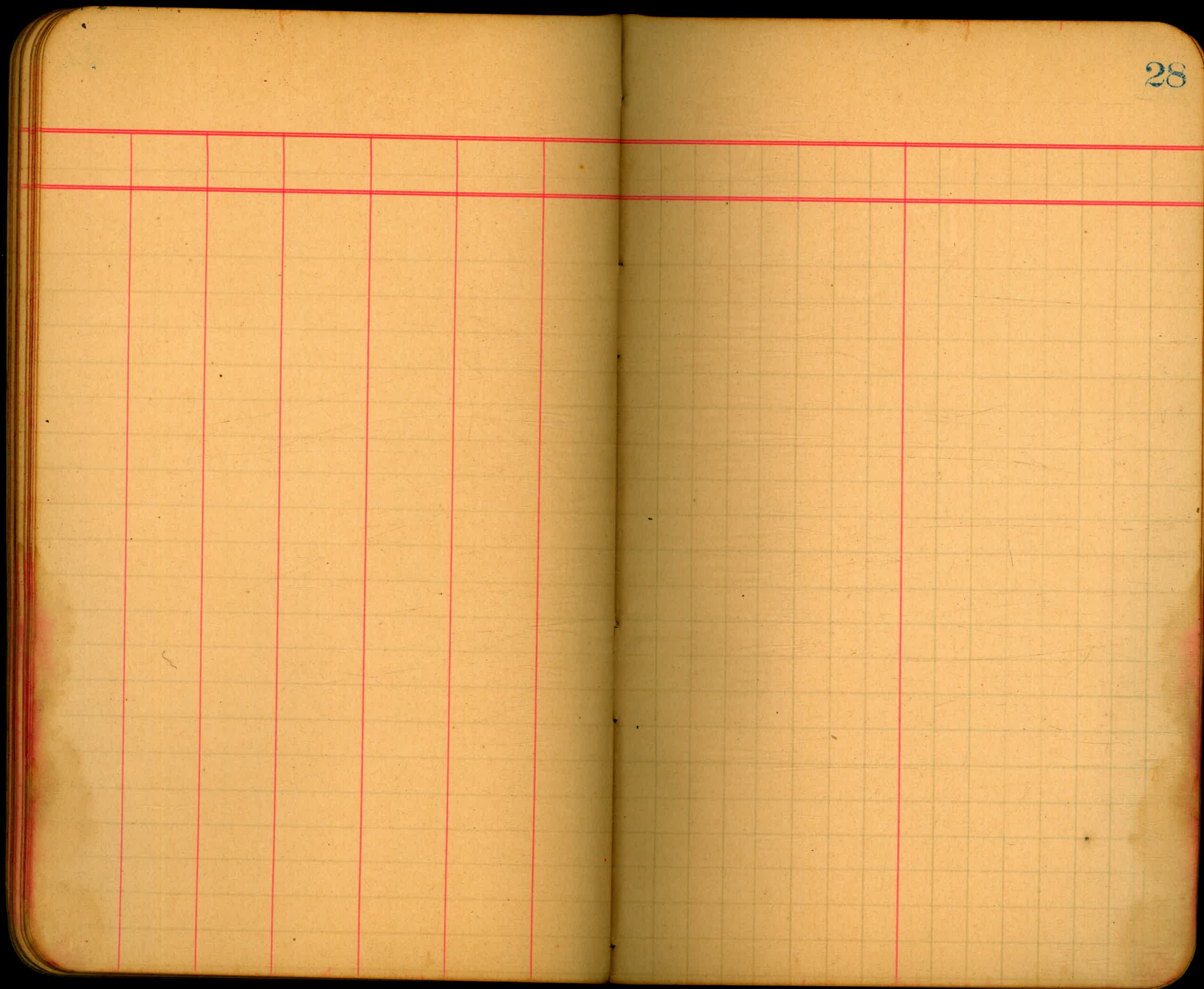


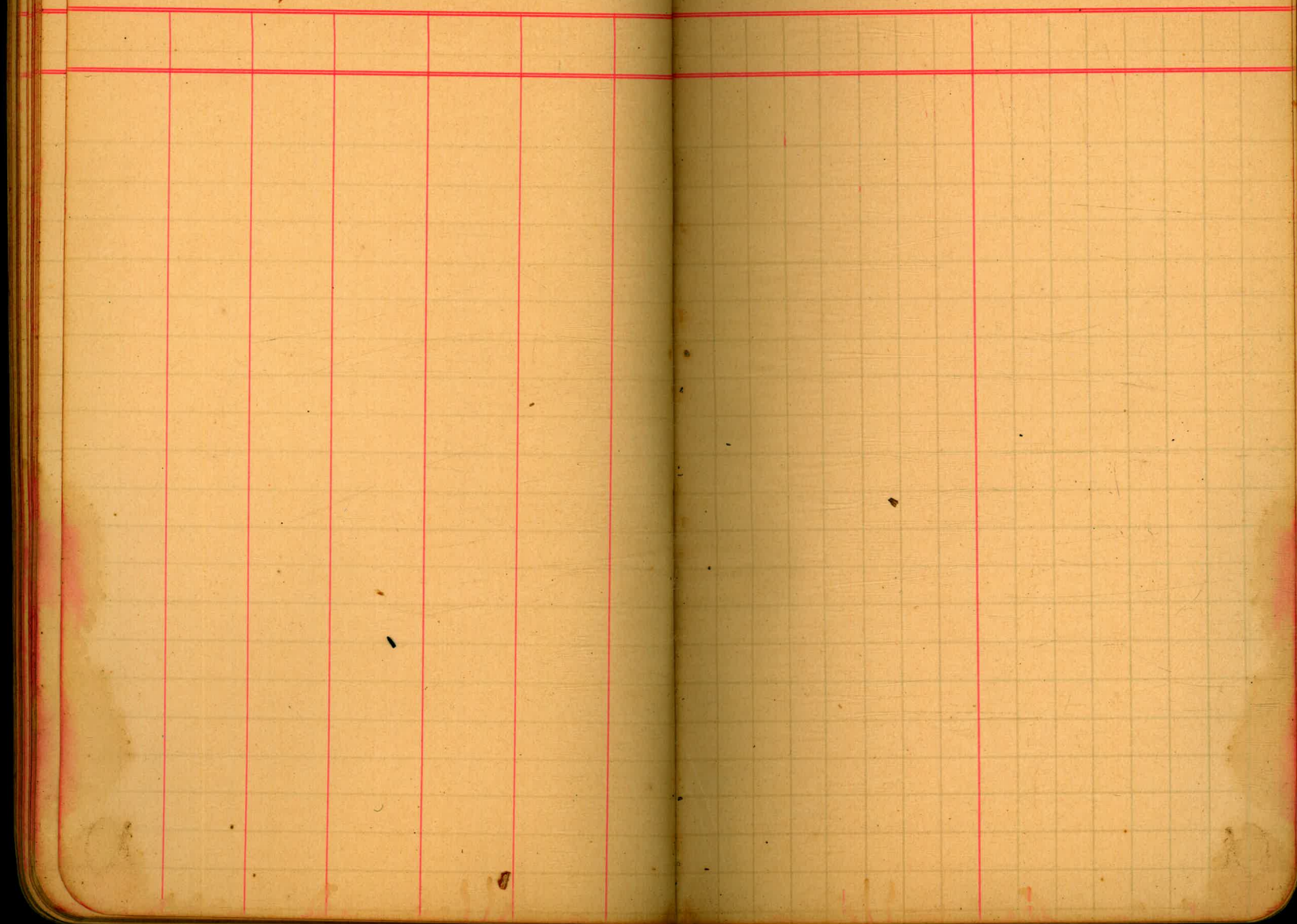
The image shows an open notebook with two pages. The pages are cream-colored and feature light blue horizontal ruling. The left page is divided into seven vertical columns by red lines. The right page has a single vertical red line on the left side. The number '24' is printed in the top right corner of the right page. The notebook is placed on a white surface against a black background.

The image shows an open notebook with two pages. The pages are cream-colored and feature light blue horizontal ruling. The left page is divided into six vertical columns by red lines. The right page has a single vertical red line on the left side, creating a narrow column. The number '25' is printed in the top right corner of the right page. The notebook is bound in the center, and the pages are slightly aged with some minor discoloration and small spots.

The image shows an open notebook with two pages. The pages are cream-colored and feature light blue horizontal ruling. The left page is divided into several vertical columns by red lines. The right page has a single vertical red line near the right edge. The number '26' is printed in the top right corner of the right page. The notebook is placed on a dark background.





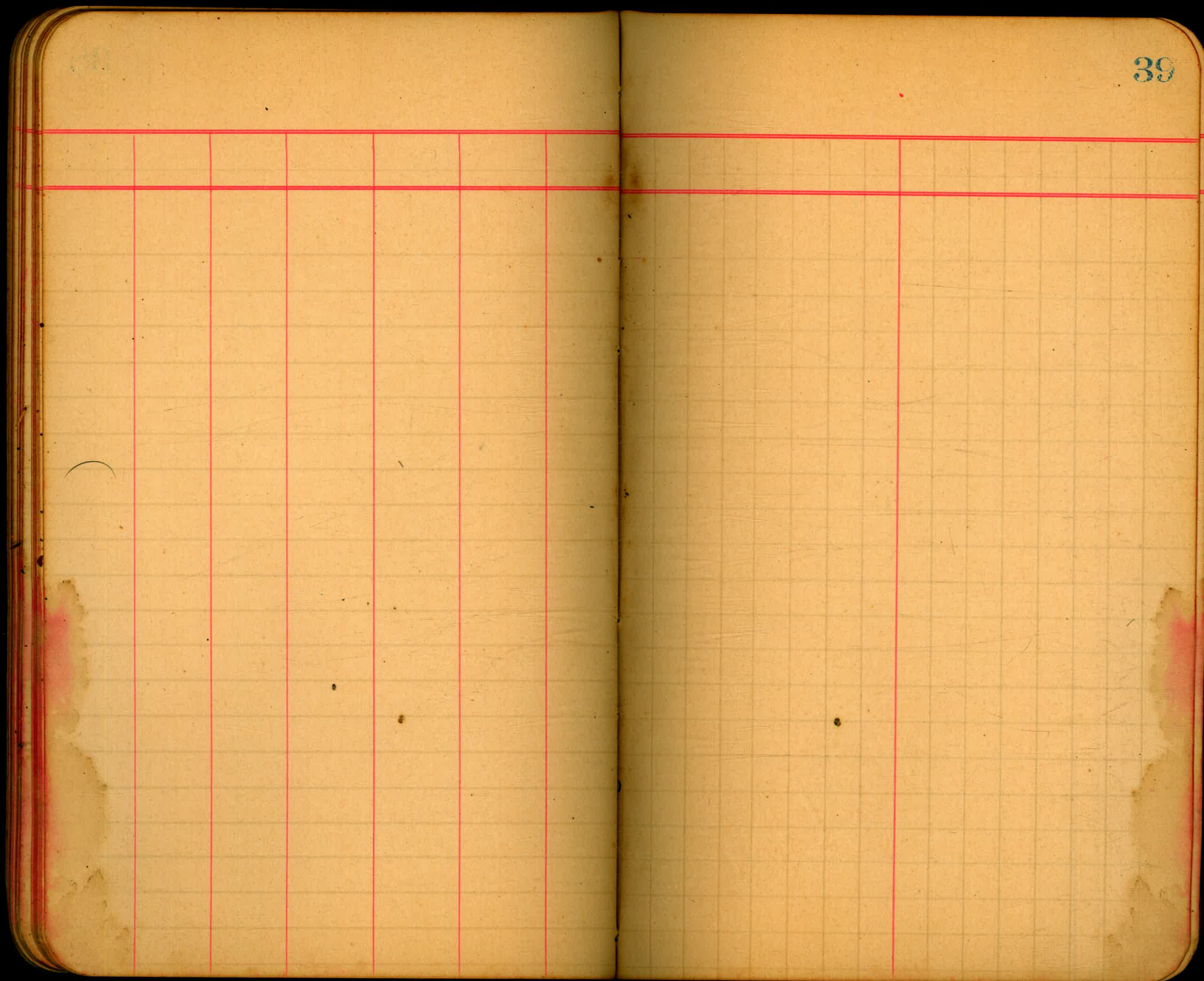


The image shows an open notebook with two blank pages. The pages are cream-colored with light blue horizontal ruling. The left page has a vertical red margin line on the left side. The right page has a vertical red margin line on the right side. The number '32' is printed in the top right corner of the right page. The notebook is placed on a white surface against a black background.

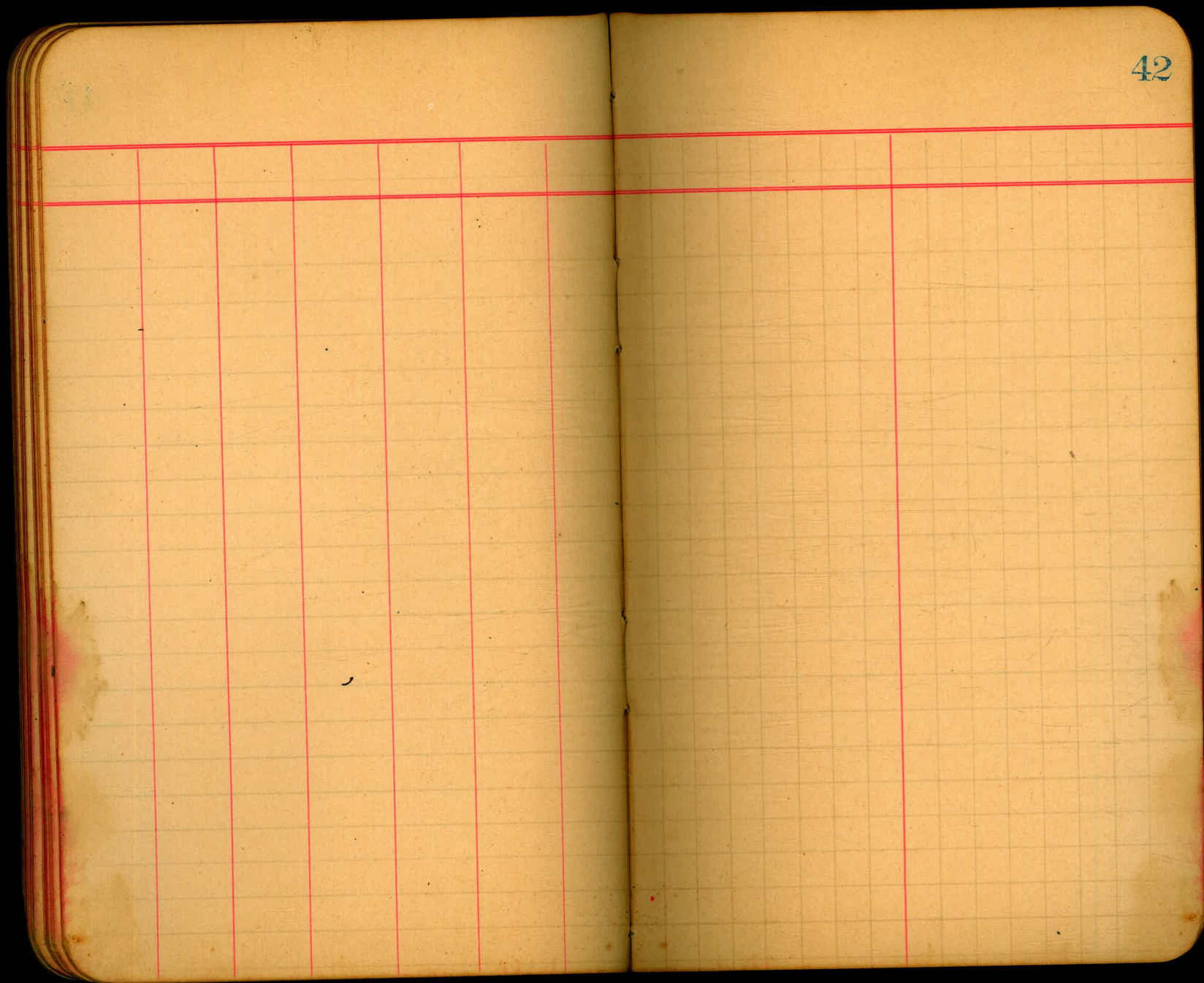
The image shows an open notebook with two pages. The left page is ruled with a table structure consisting of 6 columns and 15 rows, defined by red lines. The right page is ruled with a grid structure consisting of 10 columns and 15 rows, defined by red lines. The paper is yellowed and shows signs of age, including some stains and discoloration. The number '36' is printed in the top right corner of the right page.

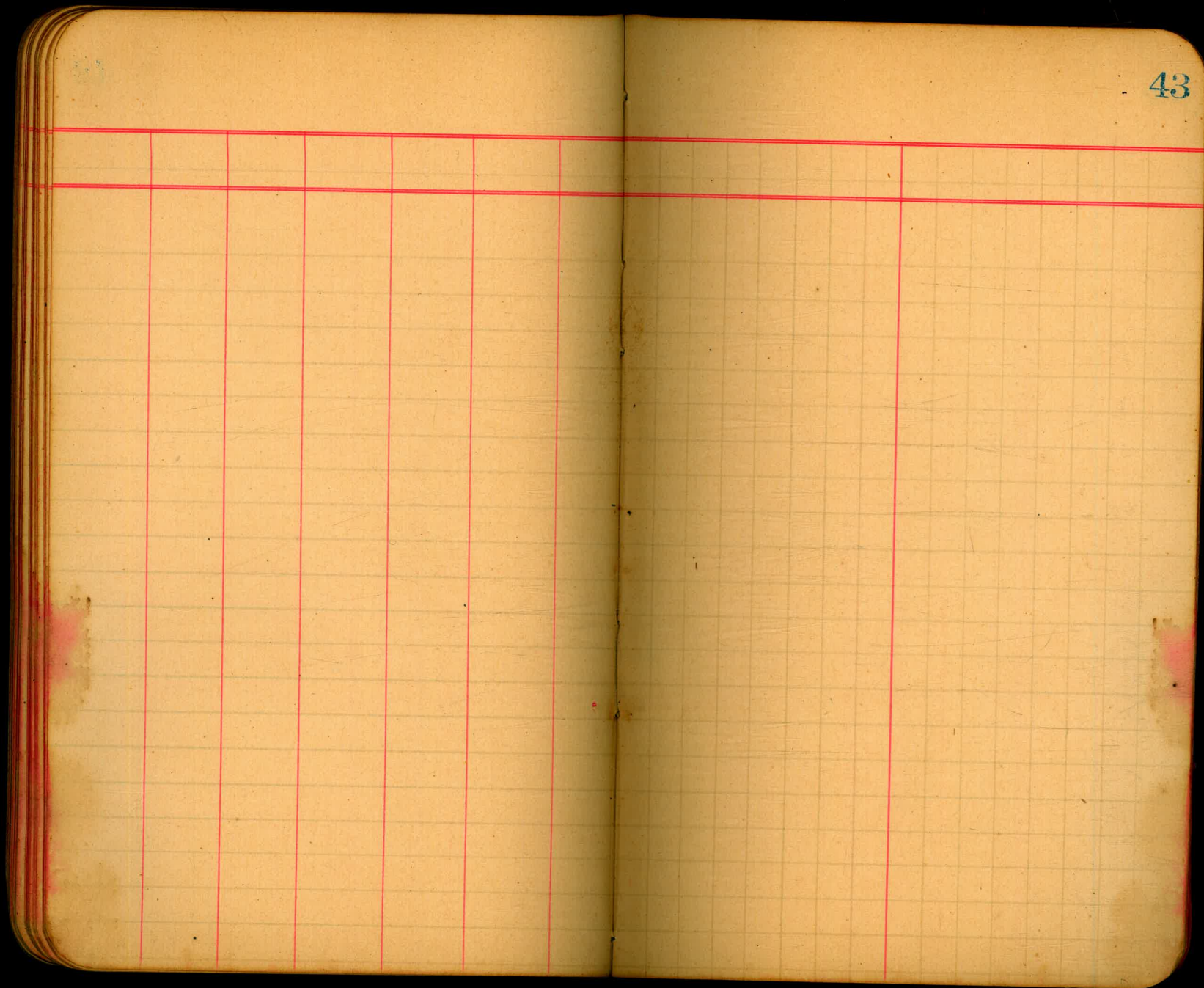
The image shows an open notebook with two pages. The pages are cream-colored and feature a grid of light blue horizontal lines and red vertical lines. The right page is numbered '37' in the top right corner. The notebook is placed on a white surface, and the background is black.

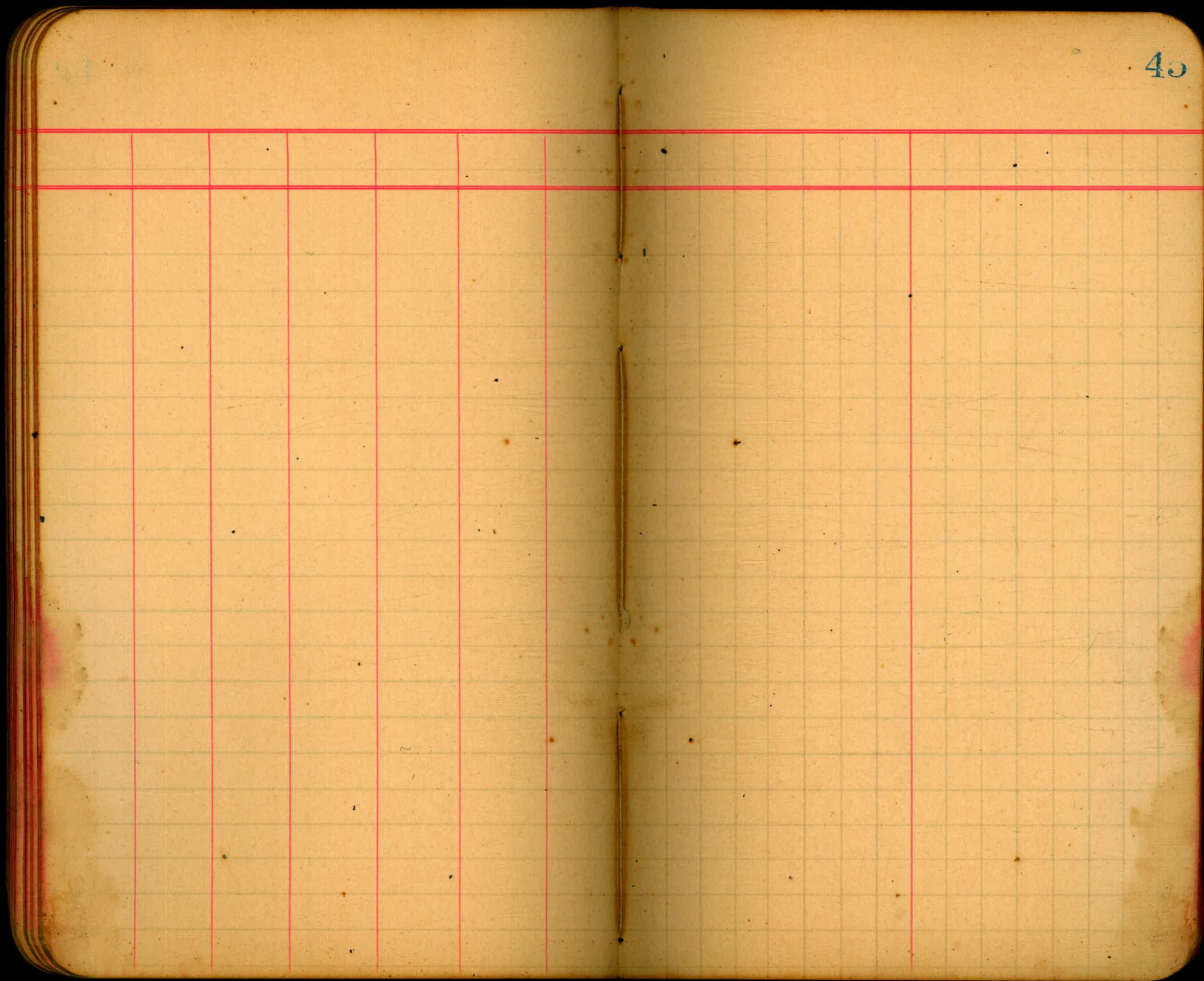
The image shows an open notebook with two pages. The left page is ruled with a table structure consisting of 6 columns and 15 rows, defined by red lines. The right page is ruled with a grid structure consisting of 15 columns and 15 rows, also defined by red lines. The pages are yellowed and show signs of age, including some stains and foxing. The number '38' is printed in the top right corner of the right page.

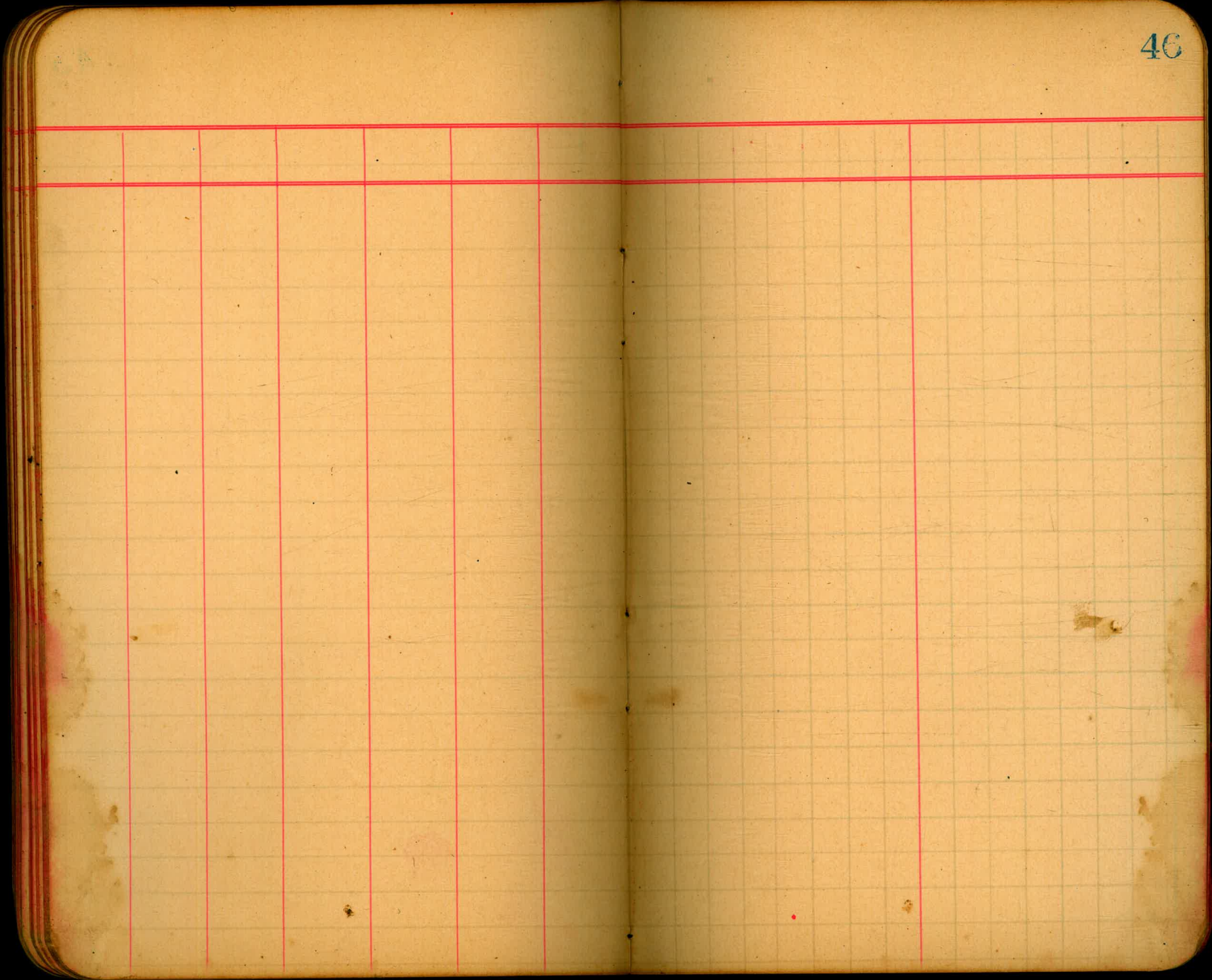


The image shows an open notebook with two blank pages. The pages are cream-colored and feature light blue horizontal ruling. The left page has a red vertical margin line on the left side, and the right page has a red vertical margin line on the right side. The number '40' is printed in the top right corner of the right page. There are some faint stains on the bottom edges of both pages.









The image shows an open notebook with two pages. The pages are cream-colored and feature light blue horizontal ruling. The left page is divided into columns by vertical red lines, with a margin on the left. The right page has a vertical red line near the right edge, creating a margin. The notebook is placed on a white surface against a black background. There are some faint stains on the pages, particularly near the center fold and the bottom corners.

Bridge on 5th Street
 Filletier Rapid Transit Co. N. Y.

	+	H.I.	-	ℓn	B.M.	Remarks
	460	280.15			275.55	
Bent 1			5.27	274.88	✓	
" 2			8.55	271.60	✓	
			11.41	268.74		
T.P.	222	270.96				
" 3			5.02	265.94	✓	
" 4			9.40	261.56	✓	
			10.46	260.50		
T.P.	294	263.44				
" 5			4.83	258.61	✓	
" 6			8.77	254.67		
" 7			6.40	257.01	✓	
			10.9	262.35		
T.P.	950	271.85				
" 8			8.22	263.63	✓	
" 9			3.87	267.98	✓	
" 10			1.86	269.99	✓	
			0.87	270.98		
T.P.	1032	281.30				
" 11			10.25	271.05	✓	
" 12			6.96	274.34	✓	

B.M. on East Side of Grade Δ 591
 Grade 279.00

Bridge at L'Etan
Rapid Transit R.R.

Δ	+	HT	-	Cl
				29500 Bent I 635+50
		29550		
			229.21	29321
Bent I	277			
II	4.60			
III	6.21			
IV	7.74			
V	5.83			
VI	2.16			

B.M. on peg at Bent I

B.M.

1877 Elev.

D 31	134.70	Rock 7' from surface
D 38	148.70	on top of stake D. 38.
D 47	166.21	" " " " 47
D 50	172.67	" " " " 116 on the Boundary

Point

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San Diego

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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	89
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							

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