

F.B.
854

FIELD BOOK

360

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. SAN FRANCISCO. ST. LOUIS.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY IS 36 FT. WIDE. SIDE SLOPES 1 TO 1.
 FOR SINGLE TRACK EXCAVATION.

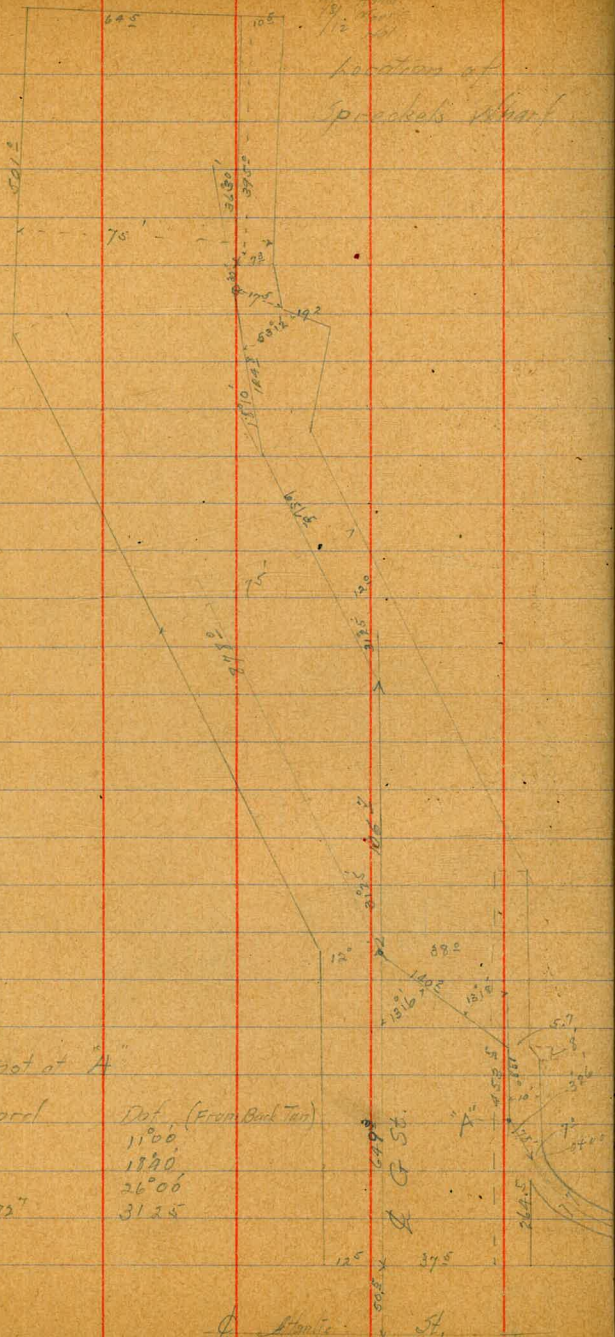
"Copyright, 1895, by Keuffel & Esser Co."

	J	.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.

Location of
Preston's Wharf



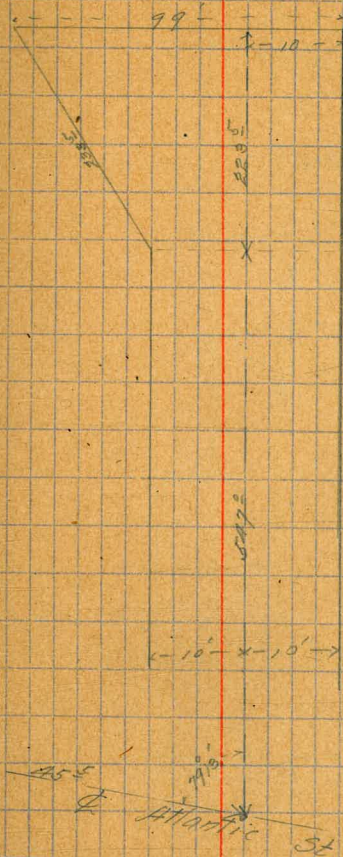
Inset at A

Chord	Dist. (From Port Ten)
1	11'00
2	18'20
3	26'06
End of Wharf	31'25

Atlantic St.

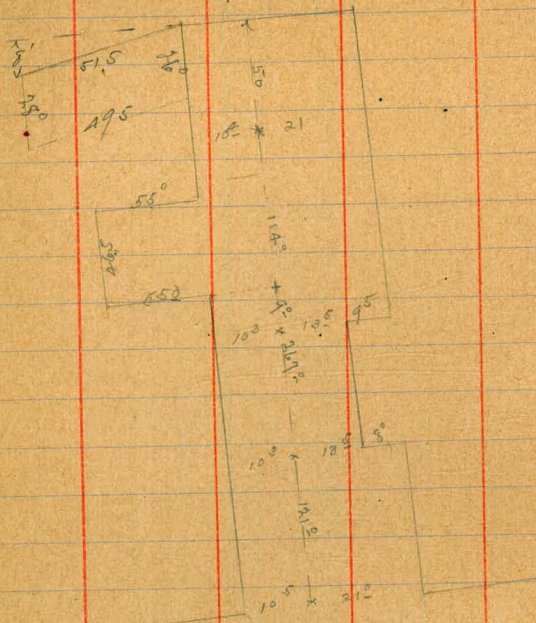
Location of P. Larra Wharf

2



Atlantic St.

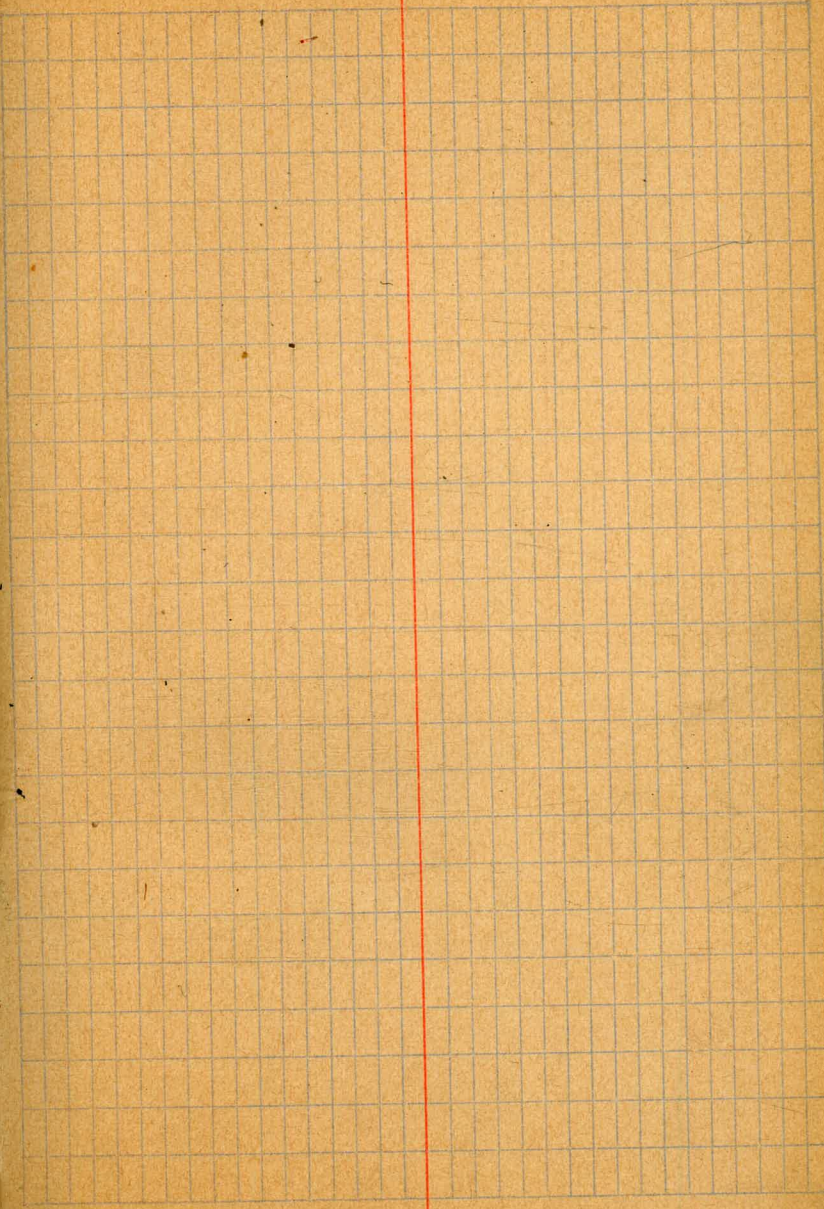
Location of Jarvis Island

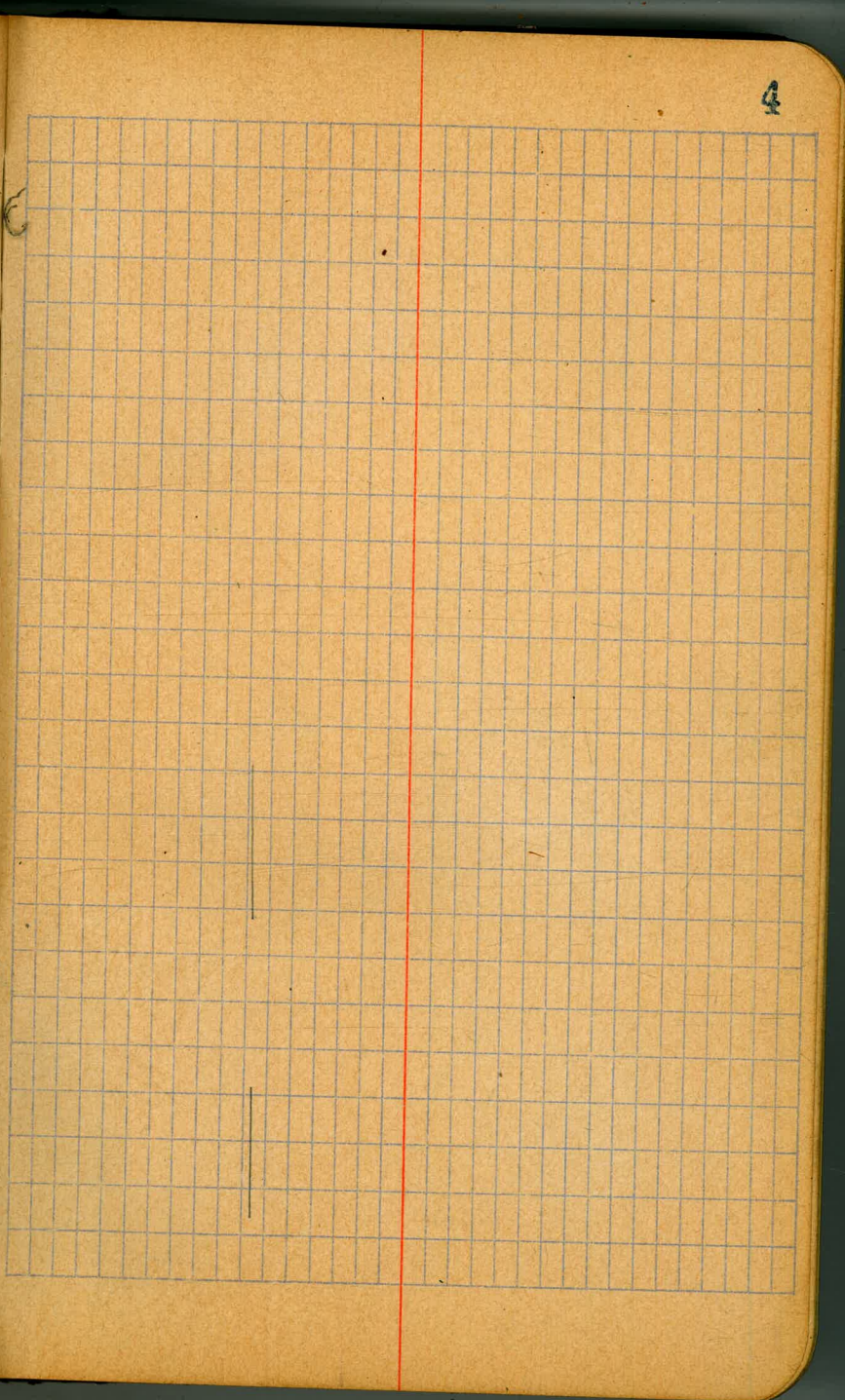
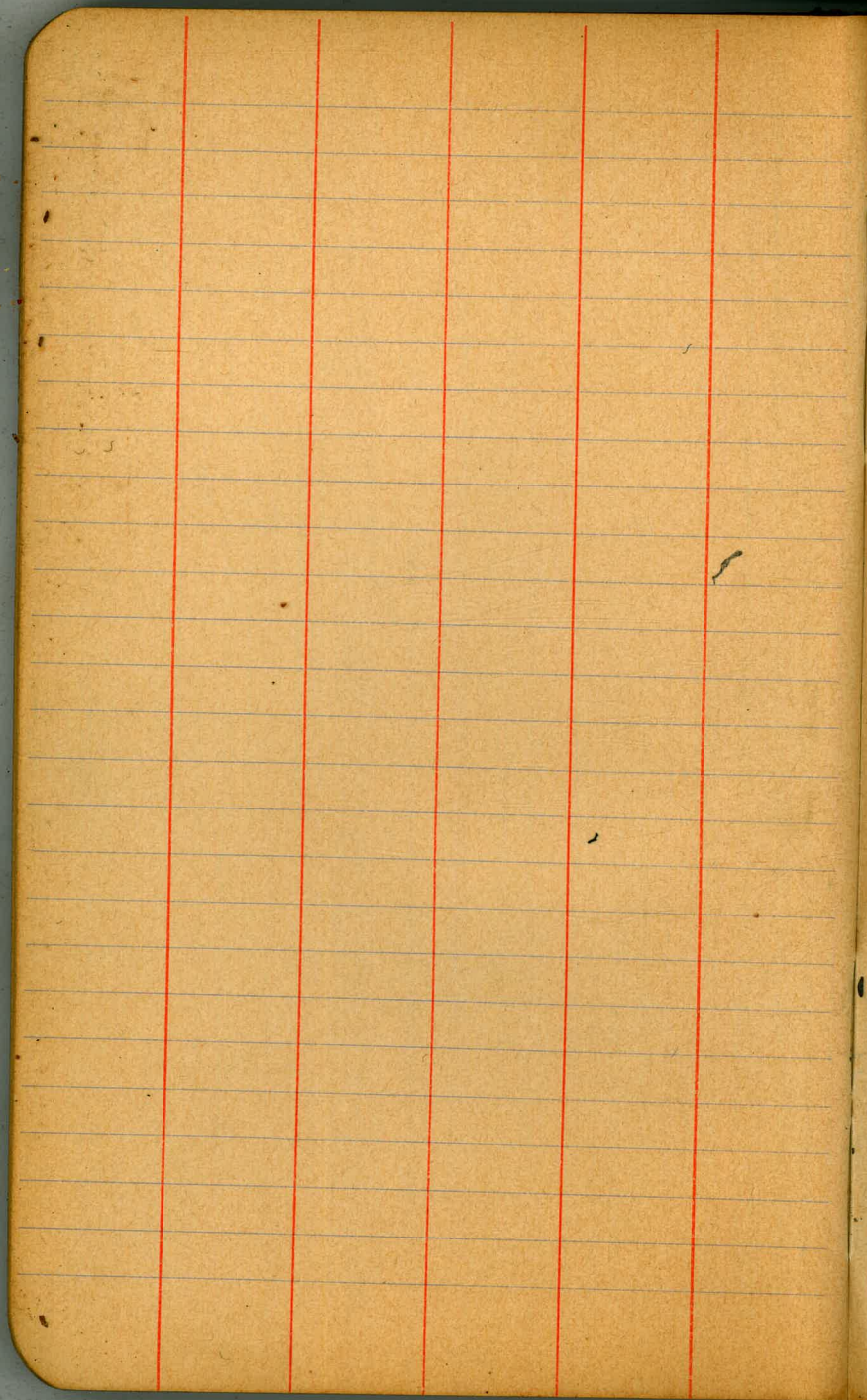


Atlantic 53

= 58

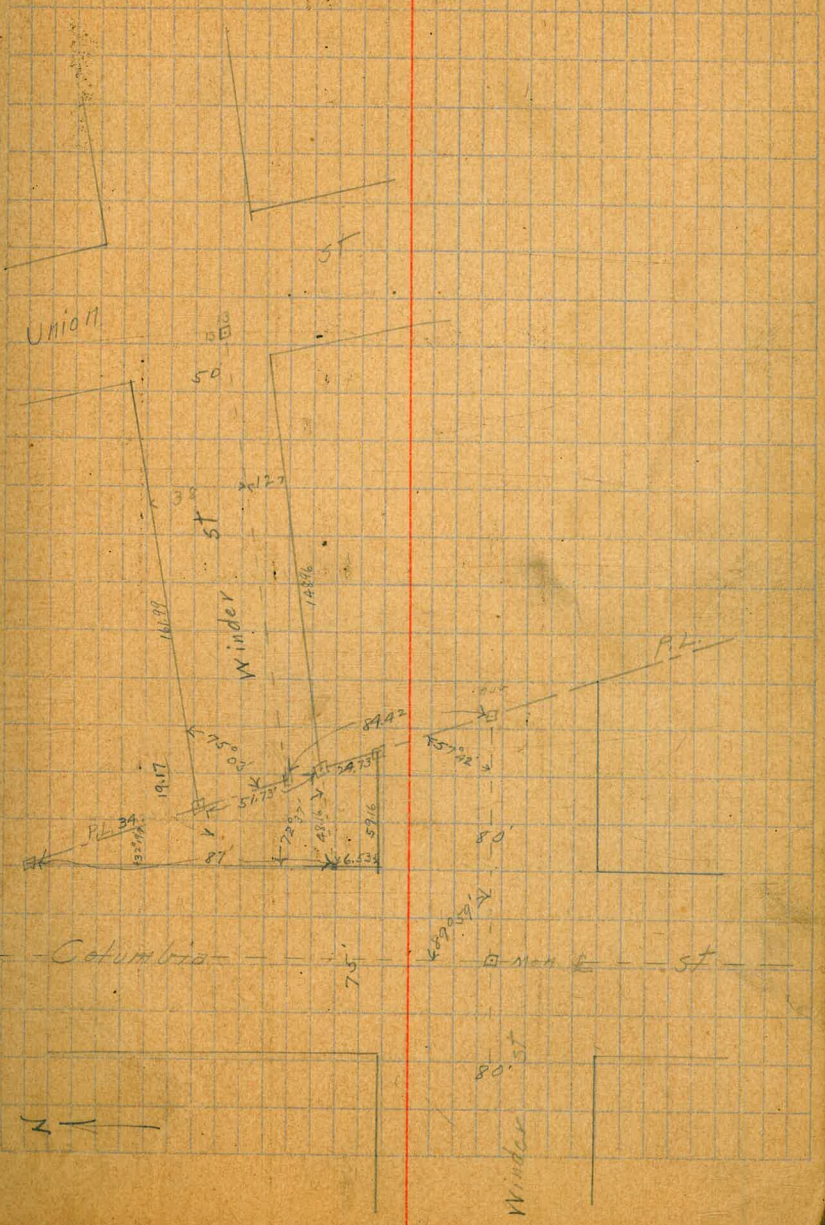
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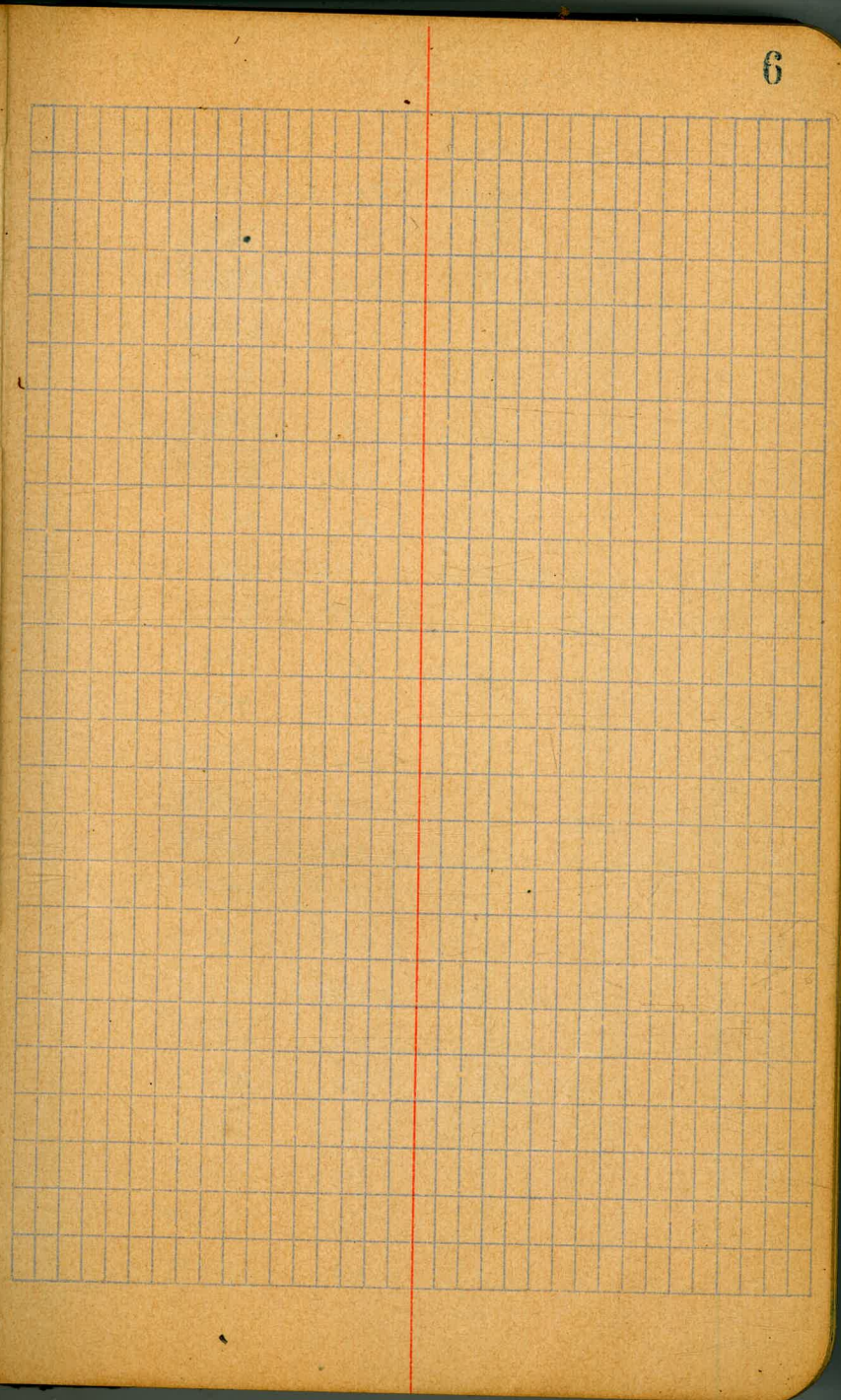
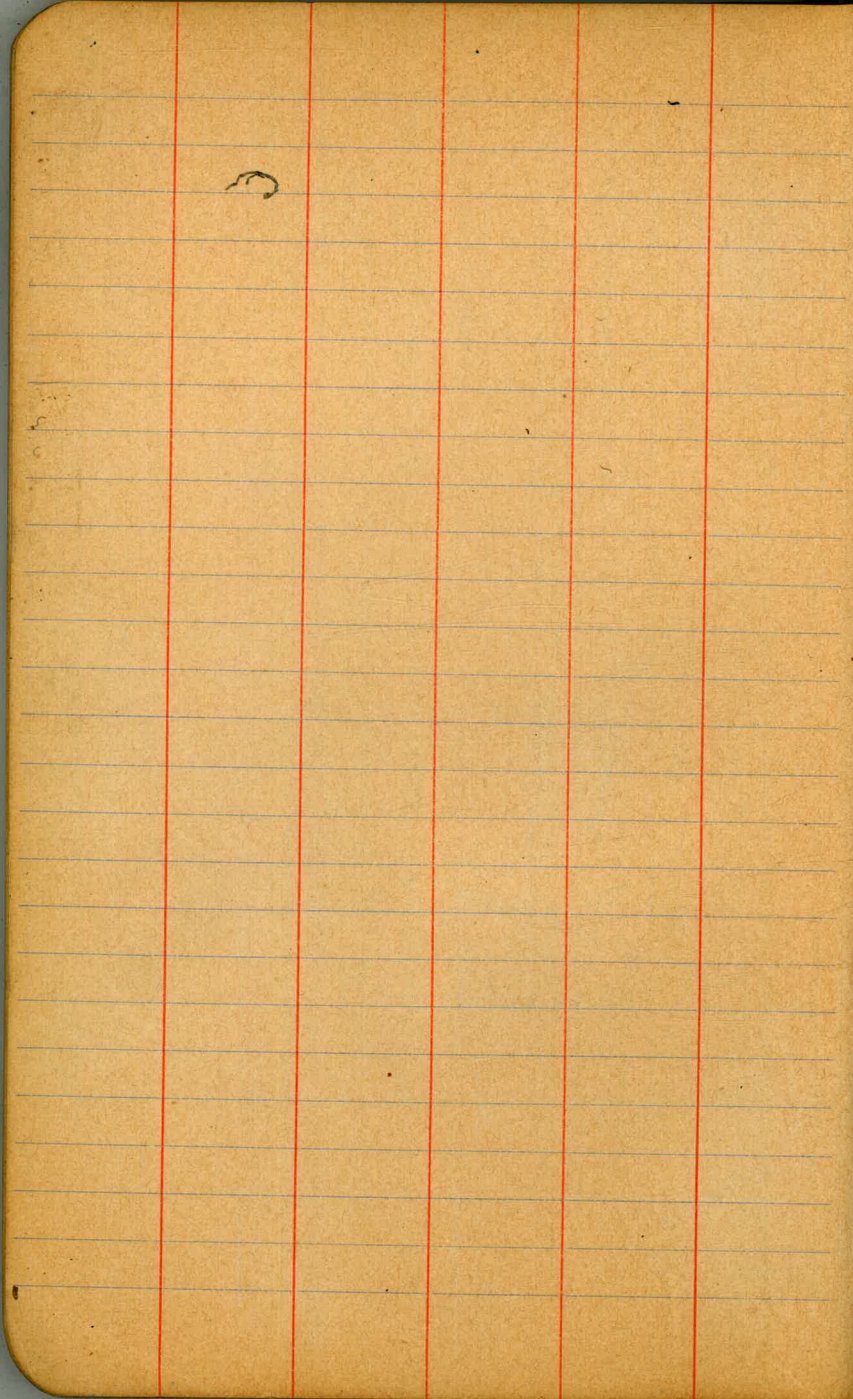




3/18
1/13
Miller
Coates
Torr

Survey for opening of Winder & Columbia St.





2/24/13
Liggett
32.4 ft
Shaw

Cross-section of Tenth St S.L. UNIVERSITY
South End. Various widths St. 16' S/W.

Grade book 71

7

E.M. 2.06 284.15 282.09 S.W. am 10th University B.R.

S. L. UNIVERSITY (97.5 WIDE)

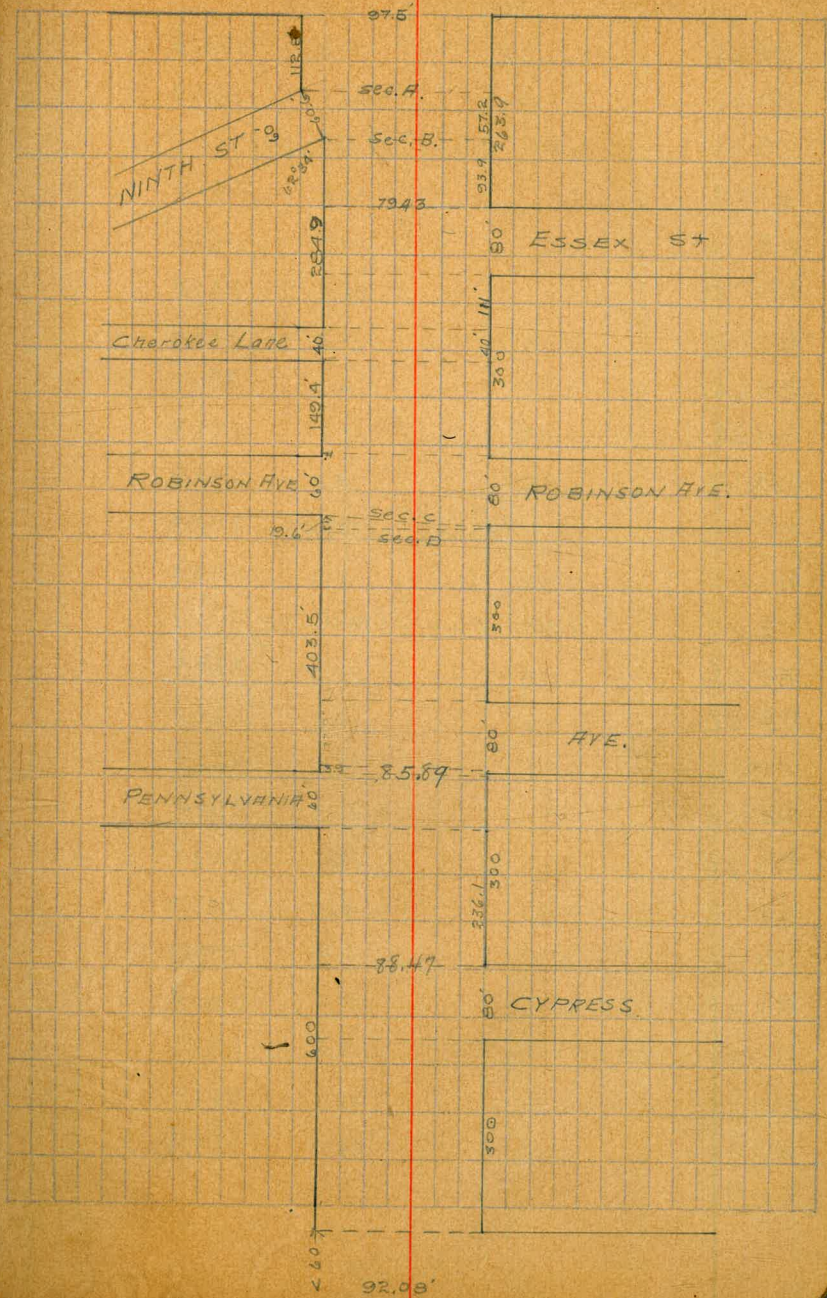
W.	2.0	282.2
1/2	2.2	282.0
1/4	1.9	282.3
C	1.6	282.6
1/4	1.4	282.8
1/2	5.2	279.0
E	4.1	280.1

25' So. (97.68 WIDE)

E	15.6	268.6
+6	14.9	269.3
1/2	9.4	274.8
1/4	4.6	279.6
C	0.9	283.3
1/4	0.8	283.4
1/2	5.1	279.1
W	3.5	280.7

50' So. (97.89 WIDE)

W	4.5	279.7
1/2	7.5	276.7
+11	8.1	276.1
1/4	5.7	278.5
C	2.2	282.0
1/4	2.8	281.4



284.15

ct	11.3	272.9
E	21.1	263.1
75' So. (98.05 WIDE)		
E	23.2	261.0
+8	21.7	262.5
ct	16.4	267.8
1/4	6.2	278.0
C	4.0	280.2
1/4	12.2	272.0
+5	13.6	270.6
ct	11.2	273.0
W	5.0	279.2

100' So. (98.23 WIDE)

W	16.5	267.7
ct	19.5	264.7
+10	21.3	262.9
1/4	20.3	263.9
C	10.5	273.7
+6	6.9	277.3
1/4	6.9	277.3
+3	7.4	276.8
ct	16.6	267.6
+11	22.3	261.9
E	24.9	259.3

284.15

8

112.8' So = Sec. A (98.32 WIDE)

E	17.9	266.3
+5	20.1	264.1
ct	14.6	269.6
+12	7.7	276.5
1/4	8.5	275.7
+5	8.9	275.3
C	15.0	269.2
1/4	23.3	260.9
ct	23.3	260.9
W	22.0	262.2

122.33' No 1/4 (95.05 WIDE)

W	24.0	260.2
ct	25.8	258.4
+12	21.6	257.6
1/4	25.3	258.9
C	16.5	267.7
1/4	9.8	274.4
+7	8.3	275.9
ct	13.9	270.3
+5	18.2	266.0
E	16.3	267.9

131.86' So = No 1/4 (91.79 WIDE)

E	13.9	270.3
+12	16.0	268.2
ct	14.0	270.2

		284.15		
+6			10.4	273.8
1/4			12.6	271.6
T.P.	3.01	274.05	13.4	271.04
C			9.8	264.3
1/4			19.3	254.8
cb			18.2	255.9
W			16.6	257.5

141.39' So = Center (88.52' WIDE)

W			19.4	254.7
cb			19.7	254.5
1/4			16.2	257.9
C			11.4	262.7
1/4			4.5	269.3
+8			2.7	271.5
cb			3.1	271.0
+6			5.2	268.9
E			3.3	270.8

150.93' So = So 1/4 (85.26' WIDE)

E			2.9	271.2
cb			3.3	270.8
1/4			6.5	267.6
C			7.2	266.9
1/4			10.4	263.7
cb			13.7	260.4
W			18.6	255.5

274.05

9

160.47' So = So. CURB. (82.00' WIDE)

W			11.7	262.4
cb			9.0	265.1
1/4			6.7	267.4
C			5.1	269.0
1/4			4.4	269.7
cb			3.3	270.8
E			0.9	273.2

170' So = So. L of Sec B. (78.74' WIDE)

E			+0.4	274.5
cb			1.3	272.8
1/4			1.1	273.0
C			1.0	273.1
1/4			2.9	271.2
cb			5.3	268.8
W			7.7	266.4

B.M. 6.86 288.95 282.09

25' So. (78.92' WIDE)

W			14.1	274.9
cb			9.5	279.5
1/4			9.5	279.5
C			9.9	279.1
1/4			10.2	278.8
cb			11.8	277.2
E			11.2	277.8

28895

50' So. (79.10) WIDE

E	8.2	280.8
cb	7.8	281.2
1/4	7.4	281.6
C	7.4	281.6
1/4	7.7	281.3
cb	8.2	280.8
W	7.9	281.1

75' So. (79.29) WIDE

W	6.8	282.2
cb	7.3	281.7
1/4	7.1	281.9
C	6.6	282.4
1/4	6.8	282.2
cb	7.0	282.0
E	6.8	282.2

93.9 So. = 1/4 ESSEX ST (SECTION = 79.13 W.)

E	6.6	282.4
cb	6.8	282.2
1/4	6.2	282.8
C	6.3	282.7
1/4	6.3	282.7
cb	6.6	282.4
W	6.5	282.5

NO. CURB

W	6.3	282.7
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28895

10

cb	6.1	282.9
1/4	5.9	283.1
C	5.8	283.2
1/4	5.7	283.3
cb	6.4	282.6
E	7.4	281.6

No. 1/4

E	7.0	282.0
cb	6.1	282.9
1/4	5.5	283.5
C	5.4	283.6
1/4	5.7	283.3
cb	5.6	283.4
W	5.7	283.3

CENTER

W	5.5	283.5
cb	5.4	283.6
1/4	5.4	283.6
C	5.2	283.8
1/4	5.3	283.7
cb	5.8	283.2
E	6.9	282.1

288.95
So. 1/4

E	6.9	282.1
cb	5.7	283.3
1/4	5.2	283.8
c	5.0	284.0
1/4	5.0	284.0
cb	5.3	283.7
W	5.3	283.7

So CURB

W	5.3	283.7
cb	5.2	283.8
1/4	5.0	284.0
c	4.9	284.1
1/4	4.9	284.1
cb	5.3	283.7
E	6.9	282.1

So. LINE (30.01 WIDE)

E	5.6	283.4
cb	5.4	283.6
1/4	5.0	284.0
c	4.9	284.1
1/4	4.9	284.1
cb	5.1	283.9
W	5.3	283.7

288.95

11

25' So. C

W	5.2	283.8
cb	5.2	283.8
1/4	5.1	283.9
c	5.0	284.0
1/4	4.7	284.3
cb	5.3	283.7
E	4.9	284.1

50' So.

E	4.9	284.1
cb	5.2	283.8
1/4	4.6	284.4
c	5.0	284.0
1/4	5.4	283.6
cb	5.2	283.8
W	5.3	283.7

75' So

W	5.5	283.5
cb	5.5	283.5
1/4	5.5	283.5
c	5.1	283.9
1/4	4.9	284.1
cb	5.4	283.6
E	4.9	284.1

288.95

111 So = N.L. Cherokee Lane

E	5.1	283.9
cb	5.9	283.1
1/4	5.4	283.6
C	5.6	283.4
1/4	5.7	283.3
cb	5.8	283.2
W	5.3	283.7

No. CURB

W	5.6	283.4
cb	5.6	283.4
1/4	5.6	283.4
C	5.4	283.6
1/4	5.4	283.6
cb	5.4	283.1
E	5.1	283.9

No 1/4

E	5.0	284.0
cb	5.9	283.1
1/4	5.4	283.6
C	5.5	283.5
1/4	5.6	283.4
cb	5.8	283.2
W	5.6	283.4

288.95

CENTER.

12

W	5.8	283.2
cb	5.9	283.1
1/4	5.6	283.4
C	5.7	283.3
1/4	5.4	283.6
cb	6.1	282.9
E	4.9	284.1

So. 1/4

E	4.9	284.1
cb	6.0	283.0
1/4	5.5	283.5
C	5.5	283.5
1/4	5.7	283.3
cb	6.0	283.0
W	5.9	283.1

So. CURB

W	6.2	282.8
cb	6.0	283.0
1/4	5.7	283.3
C	5.6	283.4
1/4	5.6	283.4
cb	6.1	282.9
E	4.9	284.1

288.95

So. LINE.

E	5.7	283.3
cb	5.9	283.1
1/4	5.6	283.4
C	5.4	283.6
1/4	5.7	283.3
cb	6.2	282.8
W	6.5	282.5

25' So.

W	6.5	282.5
cb	6.8	282.2
1/4	5.9	283.1
C	5.6	283.4
1/4	5.8	283.2
cb	6.1	282.9
E	5.3	283.7

50' So.

E	5.6	283.4
cb	6.4	282.6
1/4	5.9	283.1
C	6.0	283.0
1/4	6.3	282.7
cb	6.8	282.2
W	6.8	282.2

289.5

13

75' So.

W	7.2	281.8
cb	7.0	282.0
1/4	6.5	282.5
C	6.2	282.8
1/4	6.0	283.0
cb	6.3	282.7
E	5.8	283.2

100' So.

E	5.9	283.1
cb	6.1	282.9
1/4	6.1	282.9
C	6.5	282.5
1/4	6.9	282.1
cb	7.4	281.6
W	7.6	281.4

125' So.

W	7.5	281.2
cb	7.7	281.3
1/4	7.0	282.0
C	6.3	282.7
1/4	6.3	282.7
cb	6.6	282.4
E	5.9	283.1

288.95
 149.0' ON WEST }
 149.4' - EAST } = N.L. ROBINSON
 (WEST)
 (WEST)

E	6.2	282.8
cb	7.1	281.9
1/4	6.5	282.5
C	6.7	282.3
1/4	7.3	281.7
cb	8.4	280.6
W	8.5	280.5

No. CURB.

W	8.3	280.7
cb	8.2	280.8
1/4	7.5	281.5
C	6.9	282.1
1/4	6.7	282.3
cb	7.2	281.8
E	6.6	282.4

No. 1/4

E	6.7	282.3
cb	7.0	282.0
1/4	6.8	282.2
C	6.9	282.1
1/4	7.6	281.4
cb	8.3	280.7
W	8.8	280.2

288.95

14

CENTER

W	8.7	280.3
cb	8.3	280.7
1/4	7.7	281.3
C	7.0	282.0
1/4	6.7	282.3
cb	7.1	281.9
E	6.7	282.3

So. 1/4

E	6.6	282.4
cb	7.3	281.7
1/4	7.1	281.9
C	7.2	281.8
1/4	7.9	281.1
cb	8.4	280.6
W	8.6	280.4

So. CURB

W	8.9	280.1
cb	8.6	280.4
1/4	7.9	281.1
C	7.2	281.8
1/4	7.4	281.6
cb	7.4	281.6
E	7.0	282.0

288.95

SECTION C

E		6.7	282.3	
cb		7.6	281.4	
1/4		7.4	281.6	
C		7.2	281.8	
1/4		7.9	281.1	
cb		8.7	280.3	
W		8.7	280.3	
T.P.	4.86	285.27	8.54	280.41

SECTION D. (82.93 WIDE)

W		4.9	280.4
cb		5.0	280.3
1/4		4.3	281.0
C		3.8	281.5
1/4		3.8	281.5
cb		4.0	281.3
E		3.0	282.3

25' So.

E		3.0	282.3
cb		4.2	281.1
1/4		3.7	281.6
C		3.7	281.6
1/4		4.3	281.0
cb		4.8	280.5
W		4.7	280.6

285.27

15

50' So.

W		4.3	281.0
cb		4.6	280.7
1/4		4.1	281.2
C		3.3	282.0
1/4		3.6	281.7
cb		3.7	281.6
E		3.1	282.2

75' So.

E		3.1	282.2
cb		4.2	281.1
1/4		3.7	281.6
C		3.4	281.9
1/4		3.7	281.6
cb		4.3	281.0
W		3.9	281.4

100' So.

W		3.6	281.7
cb		4.3	280.0
1/4		3.9	281.4
C		3.2	282.1
1/4		3.4	281.9
cb		3.9	281.4
E		3.1	282.2

285.27

125' So. of Robinson

E	3.2	282.1
ct	4.7	280.6
1/4	3.6	281.7
c	3.2	282.1
1/4	3.9	281.4
ct	4.2	281.1
W	3.7	281.6

150' So.

W	3.7	281.6
ct	4.3	281.0
1/4	4.1	281.2
c	3.5	281.8
1/4	3.8	281.5
ct	4.3	281.0
E	3.6	281.7

175' So.

E	4.5	280.8
ct	5.0	280.3
1/4	4.5	280.8
c	4.0	281.3
1/4	4.2	281.1
ct	4.4	280.9
W	3.7	281.6

285.27

200' So.

16

W	4.1	281.2
ct	4.9	280.4
1/4	4.5	280.8
c	4.2	281.1
1/4	4.9	280.4
ct	5.5	279.8
E	5.0	280.3
225' So.		
E	5.9	279.4
ct	6.2	279.1
1/4	5.5	279.8
c	4.9	280.4
1/4	4.9	280.4
ct	5.1	280.2
W	4.6	280.7
250' So.		
W	5.1	280.2
ct	5.7	279.6
1/4	5.7	279.6
c	6.1	279.2
1/4	6.7	278.6
4/10	7.6	277.7
ct	9.4	275.9
E	11.4	273.9

275' So. (85.08 WIDE)

-10	19.0	266.3
E	20.0	265.3
cb	15.5	269.8
1/4	10.5	274.8
+2	8.5	276.5
C	7.1	278.2
1/4	6.5	278.8
cb	6.2	279.1
W	5.6	279.7

297' So.

W	6.9	278.4
cb	6.9	278.4
1/4	7.4	277.9
C	9.4	275.9
+5	10.2	275.1
1/4	14.4	270.9
cb	18.5	266.8
E	25.8	259.5
+15	27.4	257.9

300' So. = N.L. PENNSYL. ON EAST

-13	28.4	256.9
E	26.7	258.6
cb	19.2	266.1
1/4	15.3	270.3
C	10.9	274.4
+10	8.2	277.1
1/4	5.7	276.6
cb	8.8	276.5
W	10.0	275.3

T.P.

0.26 272.58

13.01 272.26

No. CURB

W	33	269.2
cb	25	270.0
1/4	22	270.3
C	41	268.4
1/4	6.8	265.7
cb	11.6	260.9
E	16.4	256.1
+20	21.3	251.2
+30	20.0	252.5

No. 1/4

-20	25.2	247.3
E	25.7	246.8
cb	20.1	252.4
1/4	16.4	256.1
1/4	13.1	259.4
C	10.3	262.2
1/4	8.6	263.9
cb	8.7	263.8
W	7.9	264.6

CENTER

W	13.4	259.1
cb	14.8	257.7
1/4	15.0	257.5
C	16.4	256.1

		272.52		
1/4			18.5	254.0
cb			21.2	251.8
E			24.4	248.1
+30			29.6	242.9
T.P.			18.95	259.57
-30	0.63	260.20	22.0	238.7
-20	So.	1/4	19.1	241.1
E			15.4	244.8
cb			13.6	246.6
1/4			11.7	248.5
C			9.9	250.3
1/4			8.5	251.7
cb			7.8	252.4
W			6.5	253.7
		SO. CURB		
W			11.2	249.0
cb			12.4	247.8
1/4			13.2	247.0
C			14.9	245.3
1/4			15.8	244.4
cb			16.0	244.2
E			17.2	243.0
+15			18.7	241.4
+30			22.5	237.7
+35			20.6	239.6
T.P.	0.25	248.08	18.37	247.83

		248.08		
				18
				SO. LINE ON EAST.
-30			8.7	239.4
-20			12.5	235.6
E			10.1	238.0
cb			8.9	239.2
1/4			8.0	240.1
C			7.2	240.9
1/4			6.2	241.9
cb			5.3	242.8
W			4.3	243.8
				3.9 SO. = H.L. ON WEST.
W			5.9	242.2
cb			6.7	241.4
1/4			7.6	240.5
C			8.4	239.7
1/4			9.0	239.1
cb			10.3	237.8
E			11.7	236.4
+20			12.4	235.7
+30			7.8	240.3
				NO CURB
-30			6.9	241.2
-20			11.8	237.1
E			13.2	234.9
cb			13.7	234.4
1/4			12.7	235.4
C			12.9	235.2

948.05

1/4		10.4	237.7
cb		9.8	238.3
W		9.2	238.9
T.P.	0.22	248.05	0.25
	No	1/4	
W		12.8	235.3
cb		14.3	233.8
1/4		15.4	232.7
C		16.4	231.7
1/4		15.3	232.8
cb		12.9	235.2
E		8.8	239.3
	CENTER		
E		5.4	242.7
cb		8.6	239.5
1/4		11.4	236.7
C		13.0	235.1
1/4		16.2	231.9
cb		18.1	230.0
W		19.2	228.9
+20		15.0	233.1
	50	1/4	
-35		16.0	230.1
-20		20.1	228.0
W		17.1	231.0

248.05

19

cb		15.0	233.1
1/4		12.5	235.6
C		9.8	238.3
1/4		7.8	240.3
cb		4.9	243.2
E		2.8	245.3
	So. CURB		
E		+0.3	248.4
cb		2.2	245.9
1/4		5.0	243.1
C		7.0	241.1
1/4		9.4	238.7
cb		12.1	236.0
W		14.2	233.9
+18		16.2	231.9
+45		22.1	226.0
+55		18.0	230.1
T.P.	12.33	259.91	0.47
	So. LINE		
-65		29.8	230.1
-52		34.4	225.5
-23		26.2	233.7
W		22.9	237.0
cb		19.7	240.2
1/4		17.2	242.7
C		15.0	244.9

1/2		259.1	12.6	247.3
cb			9.2	250.7
E			7.2	252.7
T.P.	12.52	272.40	0.03	259.88
	25' So.			
E			9.0	263.4
cb			12.1	260.3
1/4			14.0	258.1
C			16.8	255.6
1/4			20.5	251.9
cb			23.6	248.8
W			26.3	246.1

SAME SLOPE

	50' So.			
W			19.6	252.8
cb			15.7	256.7
1/4			11.9	260.5
C			9.3	263.1
1/4			6.3	266.1
cb			2.7	269.7
T.P.	11.63	283.80	0.23	272.17
E			9.0	274.8
	75' So.			
E			5.5	278.3
cb			6.4	277.4
1/4			9.0	274.8

283.80

20

C			12.5	271.3
1/4			15.3	268.5
cb			17.8	266.0
W			21.4	262.4
	100' So.			
W			14.2	269.6
cb			8.0	275.8
1/4			6.8	277.0
C			6.3	277.5
1/4			5.8	278.0
cb			4.9	278.9
E			5.2	278.6
	125' So.			
E			4.1	279.7
cb			5.7	278.1
1/4			5.6	278.2
C			5.6	278.2
1/4			6.3	277.5
cb			7.2	276.6
W			8.5	275.3

283.80

150' So.

W	8.0	275.8
cb	6.3	277.5
1/4	6.1	277.7
c	5.5	278.3
1/4	5.0	278.8
cb	4.7	279.1
E	3.4	280.4

175' So

E	4.0	279.8
cb	4.1	279.7
1/4	5.2	278.6
c	4.7	279.1
1/4	5.1	278.7
cb	6.6	277.2
W	7.7	276.1

200' So

W	7.0	276.8
cb	6.5	277.3
1/4	5.2	278.6
c	4.6	279.2
1/4	4.7	279.1
cb	4.4	279.4
E	4.0	279.8

283.80

236.1 So = N.L. CYPRESS

21

E	3.6	280.2
cb	4.2	279.6
1/4	4.5	279.3
c	4.4	279.4
1/4	5.2	278.6
cb	5.7	278.1
W	6.3	277.5

No. CURB

W	5.6	278.2
cb	5.6	278.2
1/4	5.2	278.6
c	4.1	279.7
1/4	4.1	279.7
cb	4.2	279.6
E	3.6	280.2

No. 1/4

E	4.0	279.8
cb	4.3	279.5
1/4	4.0	279.8
c	4.2	279.6
1/4	4.5	279.0
cb	5.5	278.3
W	5.7	278.1

CENTER

W	5.9	277.9
cb	5.0	278.8
1/4	4.3	279.5
C	4.5	279.3
1/4	4.5	279.3
cb	4.5	279.3
E	4.4	279.4

So. 1/4

E	4.4	279.4
cb	4.6	279.2
1/4	4.4	279.4
C	4.8	279.0
1/4	4.2	279.6
cb	4.9	278.9
W	5.8	278.0

So. CURB

W	5.8	278.0
cb	5.4	278.4
1/4	5.1	278.7
C	5.0	278.8
1/4	5.0	278.8
cb	5.0	278.8
E	4.4	279.4

So. LINE

E	5.4	278.4
cb	4.2	279.6
1/4	5.6	278.2
C	5.3	278.5
1/4	5.1	278.7
cb	4.9	278.9
W	5.8	278.0

25' So

W	5.2	278.6
cb	5.8	278.0
1/4	6.2	277.6
C	6.4	277.4
1/4	6.0	277.8
cb	5.8	278.0
E	5.4	278.4

50' So

E	5.5	278.3
cb	6.2	277.6
1/4	6.2	277.6
C	6.9	276.9
1/4	7.3	276.5
cb	7.0	276.8
W	6.5	277.3

283.50

75' 50

W	11.0	272.8
cb	11.2	272.6
1/4	9.7	274.1
C	9.8	276.0
1/4	7.2	276.6
cb	6.6	277.2
E	6.1	277.7

100' 50

E	6.3	277.5
cb	6.6	277.2
+5	7.6	276.2
1/4	8.5	275.3
+10	9.7	274.1
C	12.9	270.9
1/4	23.5	260.3
+10	24.2	259.6
cb	22.8	261.0
W	15.7	268.1
+3	13.7	270.1
+13	13.5	270.3

110' 50

-16	14.3	269.5
-6	14.4	269.4
W	18.7	265.1
cb	26.4	257.4

283.80

23

+10		25.8	258.0	
1/4		24.6	259.2	
C		13.7	270.1	
1/4		12.0	271.8	
cb		8.3	275.5	
E		7.0	276.8	
T.P.	0.21	271.14	12.87	270.93
		12.5	50	
E		4.3	266.8	
cb		2.6	268.5	
1/4		4.2	266.9	
C		6.7	264.4	
+5		2.7	263.4	
1/4		13.7	257.4	
cb		17.6	253.5	
W		9.3	261.8	
+9		3.3	267.8	
+20		2.8	262.3	
		1.50		
-20		5.3	265.8	
-4		5.8	265.3	
W		9.0	262.1	
cb		20.7	250.4	
+5		24.0	247.1	
1/4		22.7	248.4	

C			18.2	252.9
1/4			14.0	257.1
cb			14.9	256.2
#10			16.2	254.9
E			14.4	256.7
+10			10.3	260.8
T.P.	438	262.50	13.02	258.12
		175' So.		
-10			1.1	261.4
E			6.5	256.0
cb			15.2	247.3
1/4			19.5	243.0
+7			19.6	242.9
C			20.5	241.7
+7			21.6	240.9
1/4			18.0	242.5
cb			6.6	255.9
+6			1.1	261.4
W			0.5	262.0
+9			0.5	262.0
		200' So.		
-10			+1.2	263.7
-4			4.5	258.0
W			4.7	257.8
+9			4.0	258.5

cb			8.5	254.0
1/4			16.9	245.6
C			25.0	237.5
1/4			21.8	240.7
cb			12.6	249.9
E			4.9	257.6
		225' So.		
E			8.3	254.2
cb			15.4	247.1
1/4			22.1	240.4
C			28.1	234.4
+8			28.1	234.4
1/4			23.4	239.1
cb			14.5	248.0
+8			8.1	254.4
W			8.8	253.7
+10			1.2	261.3
		250' So.		
-10			4.5	258.0
W			12.1	250.4
+10			12.3	250.2
T.P.	0.73	250.22	13.01	249.49
cb			4.2	246.0
1/4			12.3	237.9
C			19.3	230.9

850.22

1/4	14.8	235.4
dt	9.3	240.9
E	0.9	249.3

275' So.

E	10.9	239.3
dt	17.2	233.0
1/4	21.9	228.3
+5	23.5	226.7
C	22.0	228.2
1/4	13.5	236.4
dt	4.6	245.6
+12	5.0	245.2
W	0.0	250.2

300' So = So END

W	0.0	250.2
+6	4.0	246.2
+10	9.0	241.2
dt	8.8	241.4
+8	9.0	241.2
1/4	13.3	236.9
C	21.0	229.2
1/4	26.3	223.9
dt	22.6	227.6
E	18.0	232.2

Cross section of B St from N.L. 28 to west

B.M.	1.43	198.39	196.96	B.P. SE 28+8
-20	W L	28 TH	ST	14.2
S				3.6
+4				1.4
cb				1.9
1/4				1.0
c				1.1
1/4				1.0
cb				0.8
N				0.5
	25' W			
N				0.5
cb				0.8
1/4				1.0
c				1.1
1/4				1.2
cb				1.6
+12				1.8
S				3.6
+10				12.1
	50' W			
S				2.8
cb				1.2
1/4				1.1
C				1.0

1/4				0.9
cb				0.7
N				1.1
	75' W			
-25				17.3
-18				15.5
N				5.0
+4				1.0
cb				0.6
+8				1.2
1/4				5.4
C				6.5
1/4				4.1
+5				1.6
cb				7.3
+5				4.0
S				4.0
	90' W			
-25				22.7
-15				21.2
S				11.3
+6				5.2
cb				4.7
1/4				3.5
C				6.9

198.39

+7	10.7
1/4	8.2
+7	1.1
cb	1.2
+4	1.4
N	9.4
+13	17.3
+25	21.3

100' W

-35	24.0
-25	24.7
N	13.1
+10	5.9
cb	6.3
1/4	9.9
+7	12.4
C	10.9
1/4	5.1
cb	5.7
+8	7.6
S	11.2
+21	23.4
+35	24.5

110' W

-40	31.0
-25	24.2

27

S	16.1
cb	8.7
+8	3.1
1/4	5.0
C	10.4
+6	11.4
1/4	15.5
+5	11.3
cb	12.0
+8	13.2
N	16.8
+13	24.1
+25	26.2

125' W

-25	26.4
-10	29.0
N	25.9
cb	22.9
1/4	23.4
C	16.6
1/4	6.5
+5	4.8
cb	9.5
S	19.3
+13	28.1

19839				
+35			35.9	
+45			34.4	
150' W				
-50			39.8	
-25			36.6	
S			21.1	
cb			11.9	
+8			7.2	
1/4			10.2	
T.P.	0.65	186.96	12.11	186.28
C			6.0	
1/4			11.6	
T.P.	0.73	175.06	12.63	174.33
cb			6.9	
N			6.3	
+20			3.0	
175' W				
-20			8.3	
N			10.2	
cb			10.6	
1/4			8.7	
C			4.0	
1/4			+4.4	179.5
cb			+3.0	178.1
S			5.4	
+18			14.4	

28

+55			16.4	
300' W				
-30			8.9	
-15			11.8	
S			11.2	
cb			11.0	
1/4			9.6	
C			9.7	
1/4			8.9	
cb			10.0	
N			12.0	
+25			12.8	
+35			10.7	
+47			10.7	
225' W				
-40			9.8	
-27			11.7	
-5			2.2	
N			2.9	
cb			3.0	
T.P.	8.95	182.90	1.11	173.95
1/4			8.4	
C			8.5	
1/4			9.3	
cb			6.8	

	182.40		
S			6.8
+13			7.0
+20			11.0
+30			7.2
	250' W		
-25			2.4
-15			1.1
T.P.	12.44	194.58	0.76
S			4.3
T.P.	10.92	201.43	4.07
+4			8.6
cb			8.6
1/4			10.1
C			13.6
1/4			9.5
cb			9.3
+4			9.5
N			15.6
+26			30.3
+39			33.4
	275' W		
-10			26
-25			23.4
N			7.3
+4			4.1
cb			3.8

29

1/4		4.0
C		4.4
1/4		4.4
cb		4.7
S		5.0
	300' W	
S		4.5
cb		4.9
1/4		4.5
C		4.3
1/4		4.3
cb		3.9
N		4.1

262.08

Sec. C

S	8.1	254.0
cb	8.5	253.6
1/4	8.1	254.0
C	8.7	253.4
1/4	14.8	247.3
cb	15.3	246.8
+3	16.0	246.1
N	21.3	240.8
+15	30.9	231.2
+11	40.8	221.3
+60	42.1	220.0

25' EAST OF C.

-75	54.1	208.0
-64	55.7	206.4
-37	44.9	220.2
-25	38.7	223.4
N	23.6	238.5
cb	16.6	245.5
1/4	13.3	248.8
C	10.8	251.3
1/4	9.6	252.5
cb	7.4	254.7
S	7.5	254.6

262.08
50' EAST

51

S	6.7	255.4
cb	6.5	255.6
1/4	6.9	255.2
C	7.7	254.4
1/4	10.9	251.2
cb	12.7	249.4
N	17.8	244.3
+10	23.1	240.0
+28	33.7	228.4
+45	39.5	222.6
+70	50.6	211.5

75' EAST

-70	40.7	221.4
+48	33.7	228.4
N	8.7	253.4
+35	6.2	255.9
cb	6.1	256.0
1/4	5.6	256.5
C	5.3	256.8
1/4	5.2	256.9
cb	5.9	256.2
S	6.7	255.4

89.21' East = Sec. D.

S	6.2	255.9
cb	5.6	256.5
1/4	6.1	256.0
C	5.6	256.5
1/4	5.8	256.3
cb	6.3	255.8
15	5.8	256.3
N	6.3	255.8
17	10.7	251.4

Sec. E

-15	7.5	254.6
N	6.6	255.5
cb	6.2	255.9
1/4	6.1	256.0
C	5.9	256.2
1/4	6.1	256.0
cb	6.1	256.0
S	6.2	255.9

21.73' EAST OF SEC E

S	5.9	256.2
cb	5.7	256.4
1/4	5.7	256.4
C	5.6	256.5
1/4	5.3	256.8
cb	6.1	256.0
N	5.9	256.2

43.47' EAST = Sec. F (ST = 50' WIDE)

N	5.0	257.1
cb	5.8	256.3
1/4	5.5	256.6
C	5.0	257.1
1/4	5.2	256.9
cb	5.6	256.5
S	4.6	257.5

25' EAST OF SEC F

S	4.0	258.1
cb	4.4	257.7
1/4	4.0	258.1
C	3.6	258.5
1/4	4.0	258.1
cb	4.0	258.1
N	3.8	258.3

50' EAST

N	3.4	258.7
cb	2.9	259.2
1/4	3.0	259.1
C	3.4	259.7
1/4	2.7	259.4
cb	3.0	259.1
S	2.5	259.6

262.05

75' EAST

S	0.5	261.6
cb	1.3	260.8
1/4	1.7	260.4
C	1.5	260.6
1/4	1.7	260.4
cb	2.5	259.6
N	2.8	259.3
T.P.	6.04	267.39
	0.78	261.35

100' EAST

N	6.6	260.8
cb	6.6	260.8
1/4	6.1	261.3
C	5.8	261.6
1/4	6.2	261.2
cb	6.3	261.1
S	5.9	261.5

125' EAST

S	5.2	262.2
cb	5.6	261.8
1/4	5.3	262.1
C	5.0	262.4
1/4	5.5	261.9
cb	6.4	261.0
N	6.7	260.7

267.39

150' EAST

33

N	6.6	260.8
cb	6.1	261.3
1/4	5.1	262.3
C	4.3	263.1
1/4	4.7	262.7
cb	4.9	262.5
S	4.2	263.2

Ray computation 176.9 E = Sec G

S	3.3	264.1
cb	4.1	263.3
1/4	4.2	263.2
C	4.1	263.3
1/4	5.0	262.4
cb	5.5	261.9
N	6.1	261.3

25' EAST OF G = { 30' EAST ON No. L.
20' ✓ ✓ So. L.

N	5.4	262.0
cb	4.7	262.7
1/4	4.53	262.9
C	3.9	263.5
1/4	3.8	263.6
cb	3.7	263.7
S	2.6	264.8

267.39

50' E of G = $\begin{cases} 60' \text{ on No.} \\ 40' \text{ on So.} \end{cases}$

S	2.2	265.2
cb	3.6	263.8
1/4	3.6	263.8
C	3.8	263.6
1/4	4.5	262.9
cb	4.6	262.8
N	5.0	262.4

75' EAST = $\begin{cases} 90' \text{ on No.} \\ 60' \text{ on So.} \end{cases}$

N	4.2	263.2
cb	4.2	263.2
1/4	4.0	263.4
C	3.6	263.8
1/4	3.6	263.8
cb	3.5	263.9
S	2.3	265.1

100' EAST = $\begin{cases} 120' \text{ on No.} \\ 80' \text{ on So.} \end{cases}$

S	2.4	265.0
cb	3.6	263.8
1/4	3.6	263.8
C	3.4	264.0
1/4	4.1	263.3
cb	4.2	263.2
N	4.4	263.0

267.39

122.18" EAST = $\begin{cases} 146.61' \text{ on No.} \\ 97.74' \text{ on So.} \end{cases}$ = Sec H. 34

N	4.6	262.8
cb	4.8	262.6
1/4	4.3	263.1
C	3.9	263.5
1/4	3.9	263.5
cb	3.9	263.5
S	2.8	264.6

39.97' EAST = Sec. I

S	3.9	263.5
cb	4.3	263.1
1/4	4.2	263.2
cb	4.3	263.1
1/4	4.7	262.7
cb	5.4	262.0
N	4.4	263.0

Sec. J = N. Fort Stockton

N	5.1	262.3
cb	5.1	262.3
1/4	4.9	262.5
C	4.5	262.9
1/4	4.3	263.1
cb	4.3	263.1
S	3.8	263.6

Cross Section of
Sunset Blvd. Witherby to Hortensia

14000
Earle
Stock
Kelley

264.13

35

10' shw
50' wide
10' shw
7.5' 1/4"

3.11

264.13

261.02

NEDP
Sunset &
Witherby

W.L. Witherby

SL	0.2
cb	0.9
+3	0.8
1/4	1.5
c	2.1
1/2	2.7
cb	3.2
NL	2.8

25' W

NL	2.5
cb	3.1
1/4	2.8
c	2.4
1/2	1.8
cb	1.6
SL	1.3

50' W

SL	3.1
cb	3.7
1/4	4.2
c	4.5
1/2	5.1
cb	5.5

NL	5.6
60' W	
NL	6.5
cb	6.7
1/4	6.0
c	5.8
1/4	5.5
cb	5.3
SL	3.7
68' W	
SL	4.1
cb	5.4
1/4	5.6
c	5.9
+2	7.7
1/4	7.7
+2	6.6
cb	6.9
NL	6.7
75' W	
NL	7.0
cb	7.3
+3	7.2
+5	8.3
1/4	8.4
c	7.9

264.13

+3			6.1	
1/4			6.1	
cb			6.0	
SL			4.9	
T.P.	347	259.53	8.07	256.06
		90' W		
SL			2.2	
cb			2.4	
1/4			2.3	
+2			2.0	
+4			3.6	
e			4.3	
1/4			3.8	
cb			3.9	
N			4.0	
		120' W		
N			5.3	
cb			5.2	
1/4			4.6	
e			4.2	
1/4			3.4	
cb			3.1	
S			3.1	
		125' W		
S			4.7	
cb			5.1	

25953

Sunset Blvd 36

1/4			5.5	
C			6.1	
1/4			4.6	
cb			6.7	
N			7.0	
+10			7.2	
		150' W		
-10			9.5	
N			8.9	
cb			8.7	
1/4			8.5	
C			8.2	
1/4			7.9	
cb			7.4	
S			6.8	
		175' W		
S			8.9	
cb			9.5	
1/4			10.0	
C			10.5	
1/4			10.8	
cb			11.1	
N			11.2	
+10			11.3	
		200' W		
+10			12.4	

259.53

N			11.8	
cb			12.1	
1/4			12.1	
c			12.2	
1/4			11.8	
cb			11.5	
S			10.9	
		225' W		
S			12.9	
cb			13.2	
1/4			13.3	
T.P.	1.08	247.68	12.93	246.60
c			1.6	
1/4			1.9	
cb			2.0	
N			2.3	
		250' W		
N			3.1	
cb			2.8	
1/4			3.1	
c			2.8	
1/4			2.6	
dt			2.2	
S			1.9	
		265' W		
S			3.1	

247.68

Sunset Blvd 37

dt			3.1	
1/4			3.5	
c			3.5	
1/4			4.1	
cb			4.4	
N			4.0	
		275' W		
-10			6.5	
N			6.1	
cb			5.1	
1/4			4.6	
c			3.9	
1/4			3.6	
cb			3.7	
S			3.8	
		291' W		
S			5.4	
dt			5.7	
1/4			5.6	
c			6.5	
1/4			7.6	
cb			8.9	
N			9.7	
+10			12.8	
		300' W = W.L. of Hortensia		
-15			18.3	

50' wide
10' slur
7.5' 1/4 S

247.68

N	14.4
cb	11.6
1/4	10.6
C	9.3
1/4	8.9
cb	7.5
S	6.2

E cb

S	9.4		
cb	11.5		
1/4	12.6		
C	13.3		
T.P., 0.47	235.33	12.82	234.86
1/4	11.4		
cb	2.7		
N	5.3		
+15	8.8		

E 1/4

-15	13.4
N	8.2
cb	5.5
1/4	4.2
C	4.3
1/4	3.9
cb	2.5
S	1.5

235.33

Sunset Blvd.

38

+5	0.4		
	- Center		
-10	2.4		
S	5.3		
cb	6.4		
1/4	7.5		
C	8.0		
1/4	8.3		
cb	9.0		
N	10.7		
+15	18.0		
	w 1/4		
-15	21.5		
N	14.8		
cb	13.1		
1/4	13.0		
C	13.2		
1/4	12.3		
cb	11.8		
S	10.7		
+10	8.0		
	w cb		
-15	6.9		
-6	12.4		
T.P. 0.12	222.72	12.73	222.60
S	2.4		

222.72

cb	4.2
1/4	4.8
C	5.0
1/4	4.7
cb	4.4
N	6.8
+15	11.8

WL of Mortarsia

-20	18.4
N	12.2
cb	12.0
1/4	11.2
C	11.0
1/4	10.1
cb	9.0
S	6.0
+10	2.2

25' W

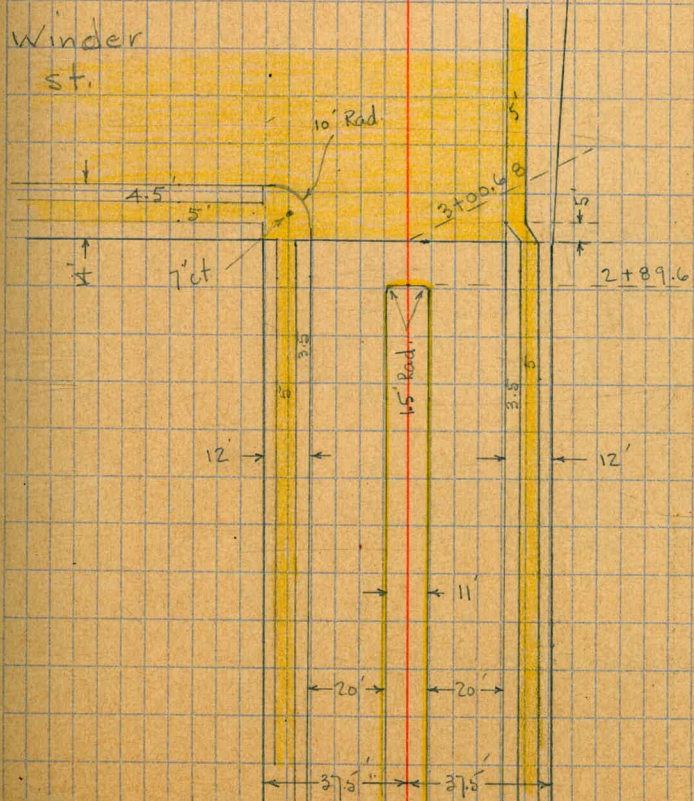
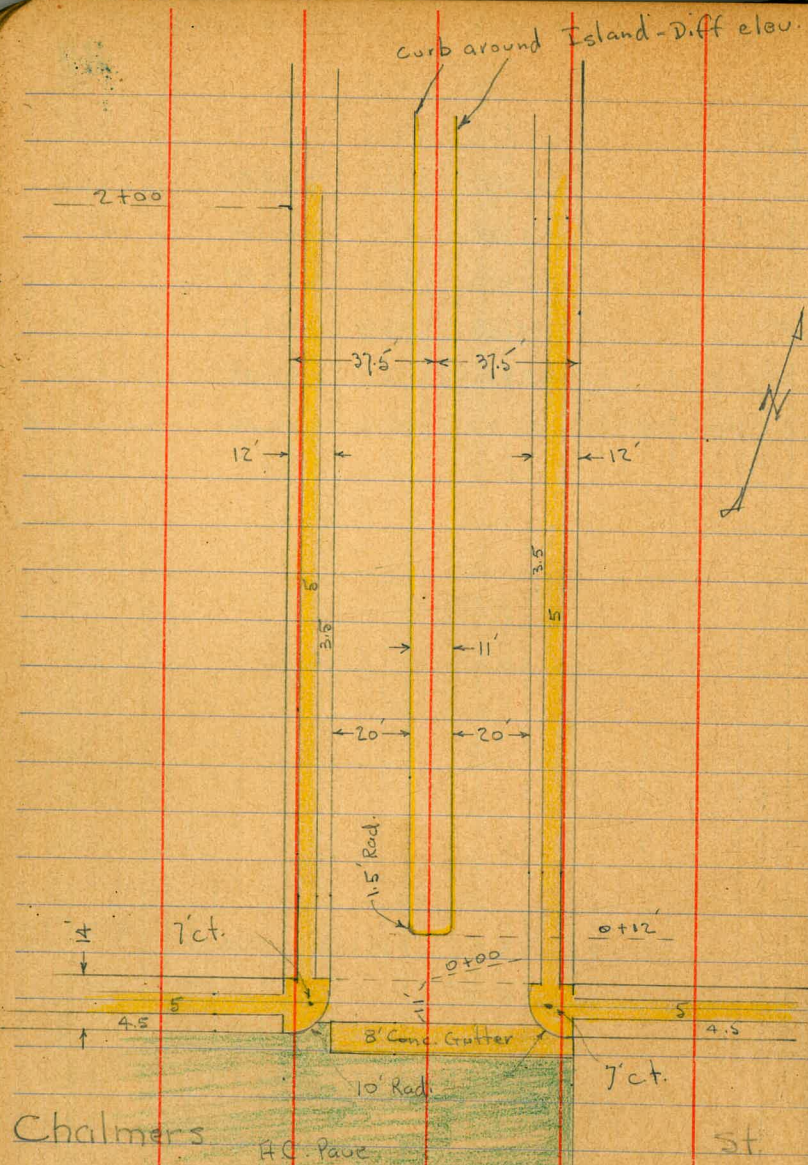
T.P.	0.08	210.16	12.64	210.08
-15			0.3	
S			5.4	
cb			8.9	
1/4			11.3	
C			13.0	
1/4			13.8	
cb			15.1	

210.16

Sunset

39

N			14.8	
+20			17.6	
T.P.	11.91	220.85	1.22	208.94
T.P.	12.42	233.10	0.17	220.68
T.P.	12.60	245.07	9.63	232.47
T.P.	12.78	257.28	0.57	244.50
T.P.	9.78	265.86	1.20	256.08
check BM			4.80	261.06
				261.02 BM



X- Sect. Columbia St. - 75' St. - 12' curbs
 + 11' Parkway in Φ -curbs on E side are
 higher than the West. Will take Levels
 on each side separately - Use H.I. Shown on
 each side

4203

W.O. 31593

INDEXED
M.K.
MAR 17 1950

2-24-50

Osborne
 Hardin
 Hatch
 Shepard.

0-11 = Nly. of Conc. gut.

0-14 = N. cb.

0-15 = Φ of Conc. gut = low point

0-19 = sly. of 8' Conc. gutter.

0-40 = \pm Chalmers = H.C. Pavc

BM.

2.81

99.92

97.11

S.E. B.P.

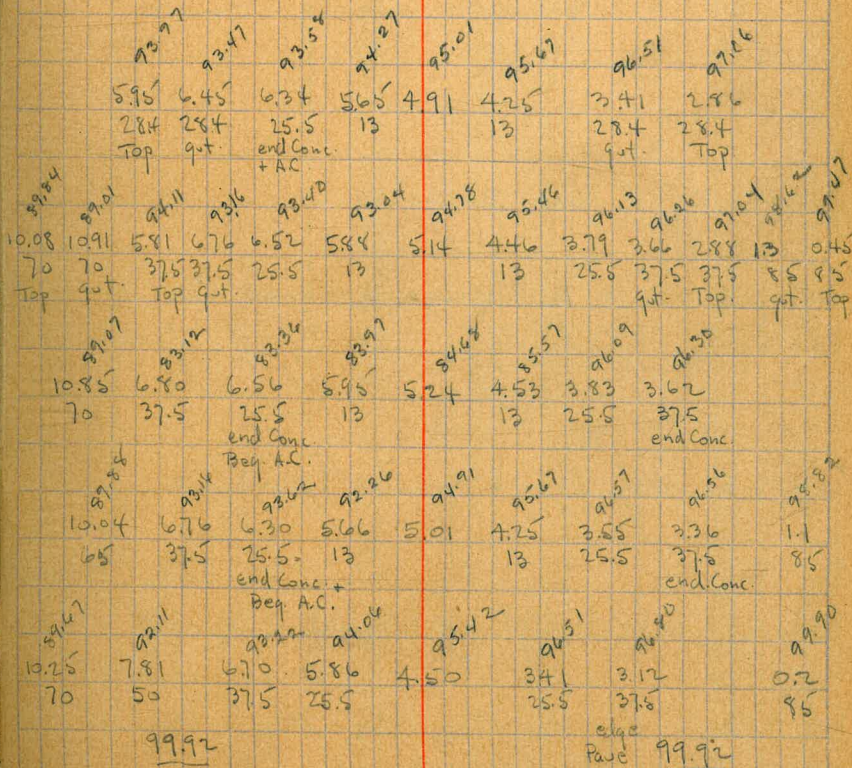
Lt. = W.

Φ - Consider
 as N+S

R = E.

41

Soil Sample - W. $\frac{1}{2}$ - 100' S. of S.L. Winder



Chalmers + Columbia

Note: H.I. may be diff
 for each side of Φ

1+10 = Sly. of Conc. Dr. on Rt.

T.P. 8.41 107.08 125 98.67

1+00

0+75

x 0+67 = 11' Conc. Dr. on Rt.

Note: dirt in Φ is average between cbs.

0+50

0+12.5 = P.C. of 1.5' Rad. on Island cb.

0+12 = Most Sly. of cb. around 11' Island.

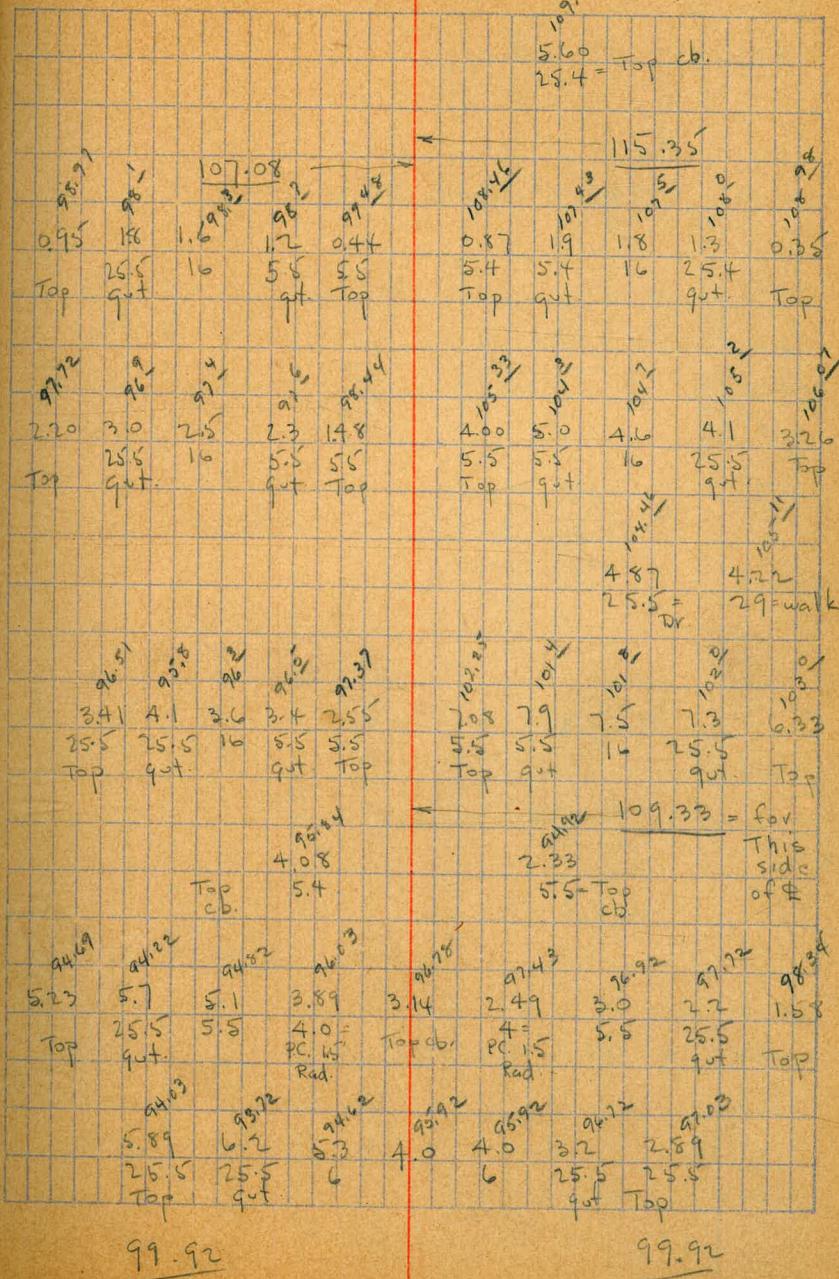
0+00 = N.L. Chalmers

Lt

Φ

Rt

42



T.P. on S.W. 7' ct.

5.82

101.26 - checked by upper levels.

3+14.68 = S. cb. to w.

± of S.W. Ret

3+00.68 = S.L. Winder St = edge of Conc. pave

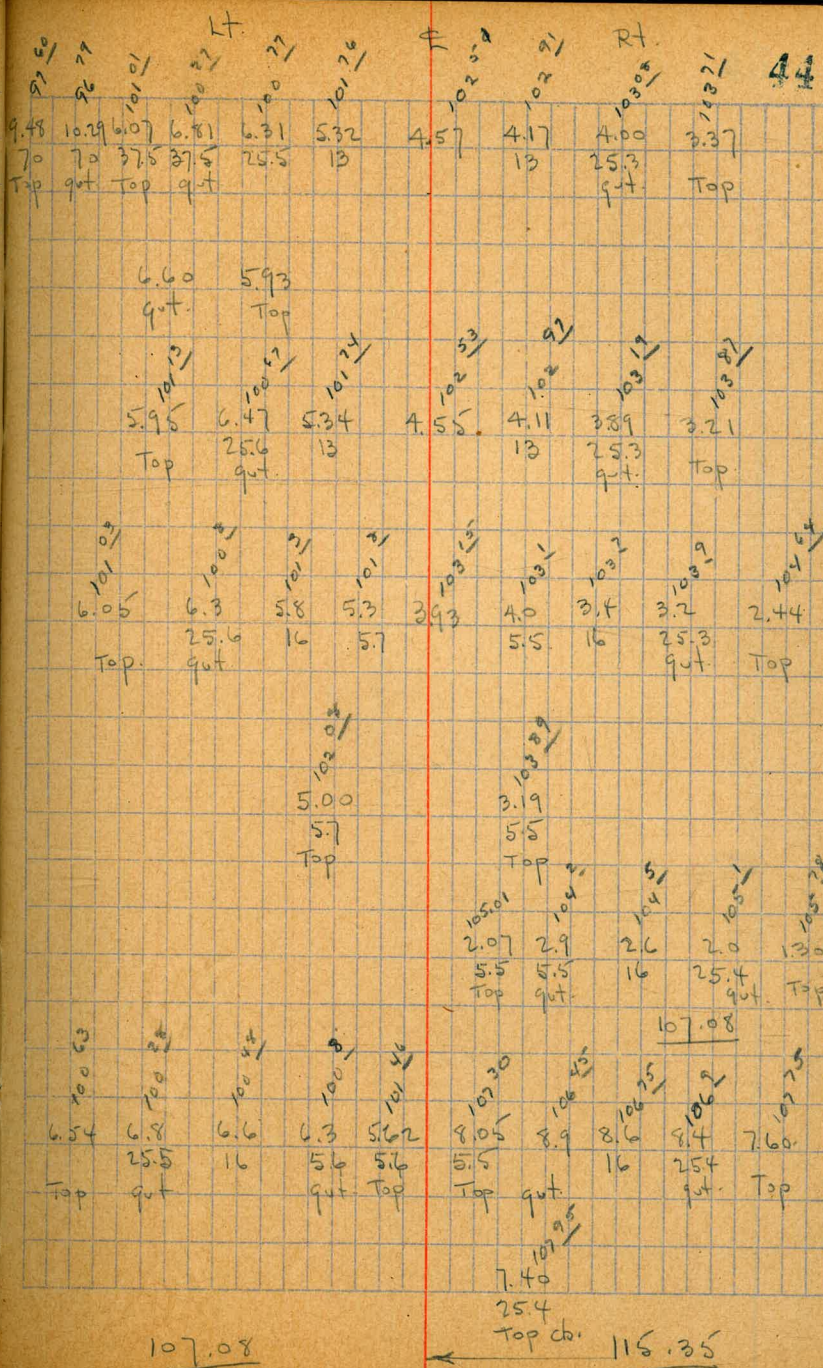
2+89.6 = Nly. of cb. around Island.

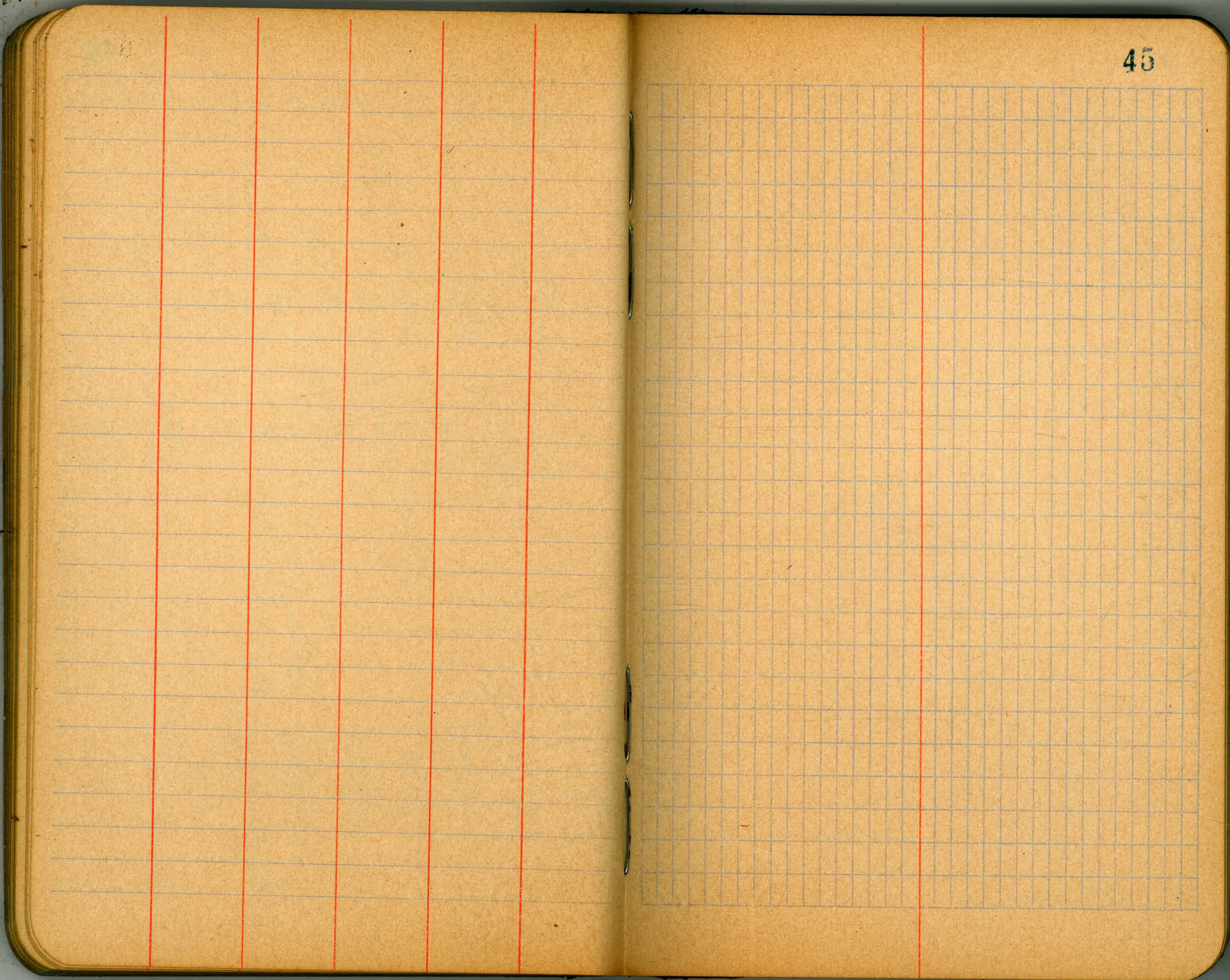
2+88.1 = P.C. of 15' Rad. on Island curb

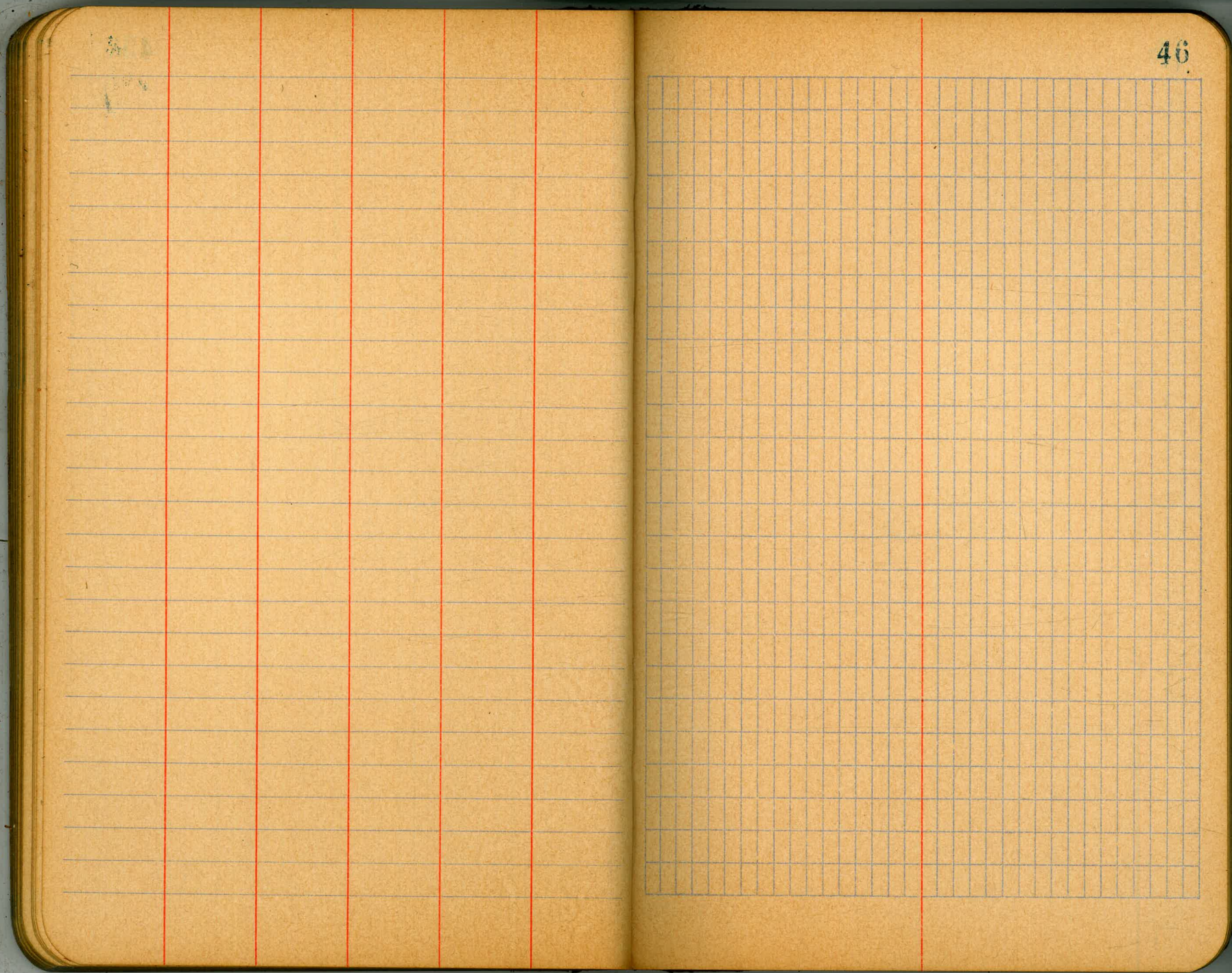
2+75

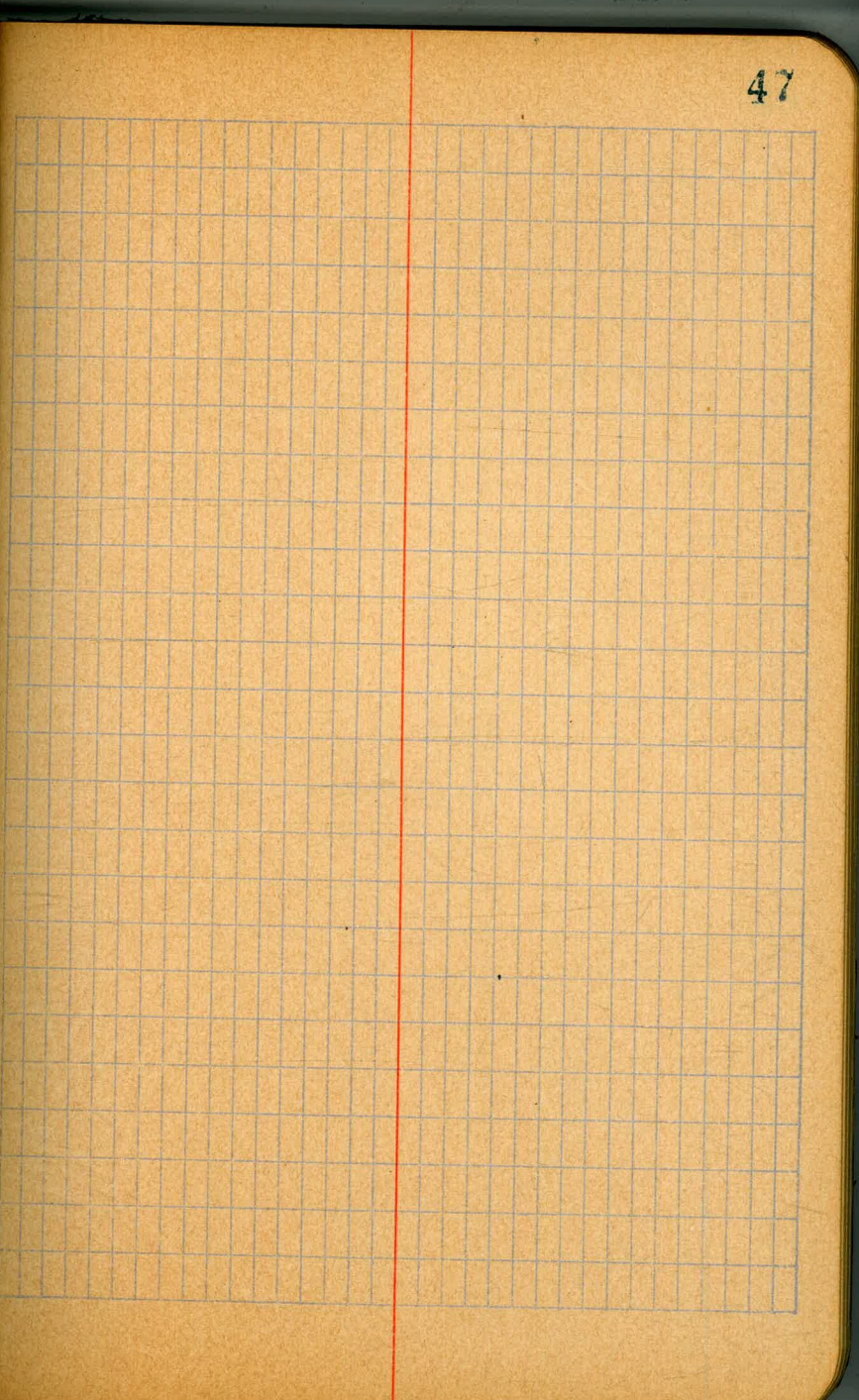
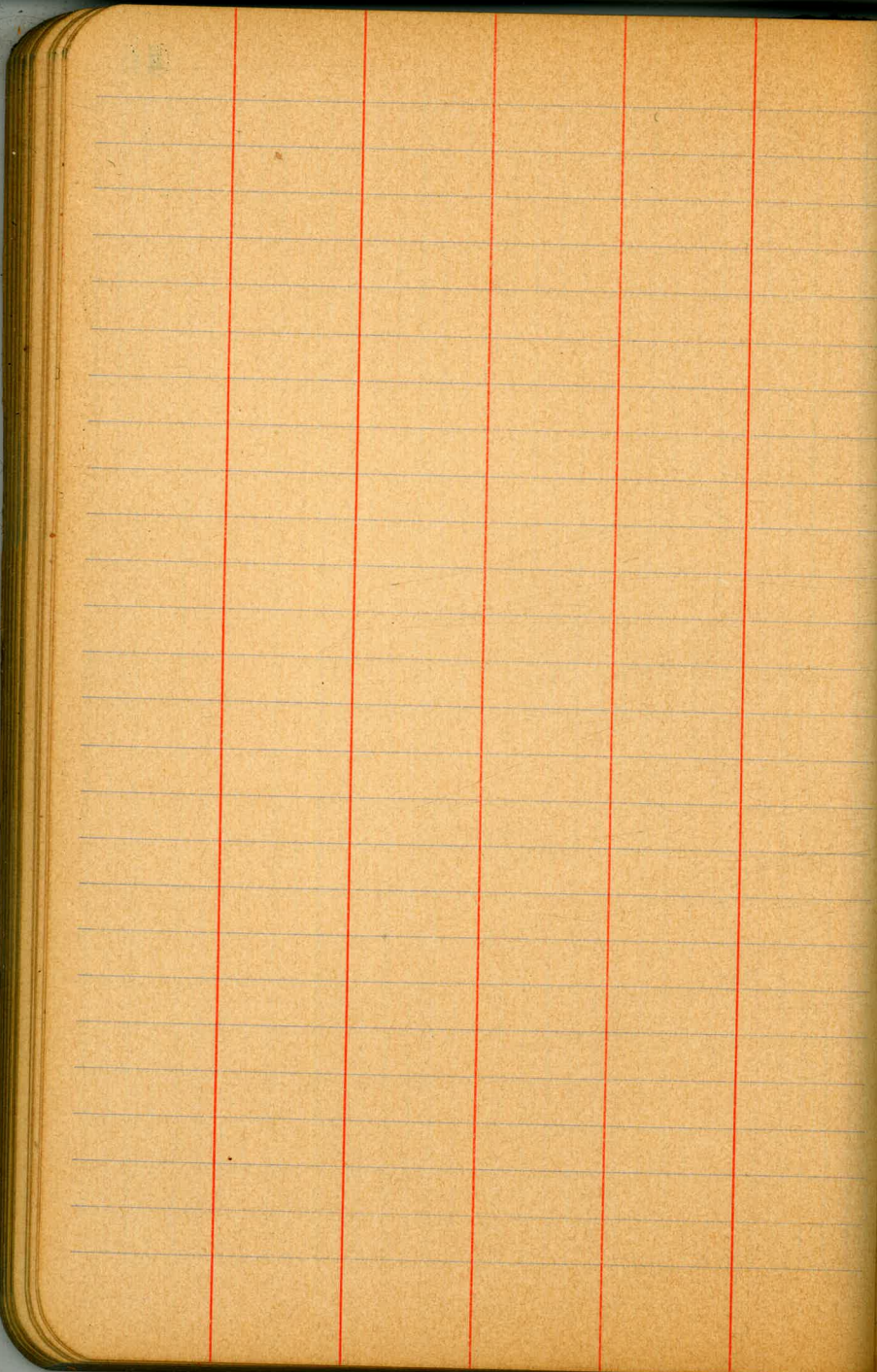
2+50

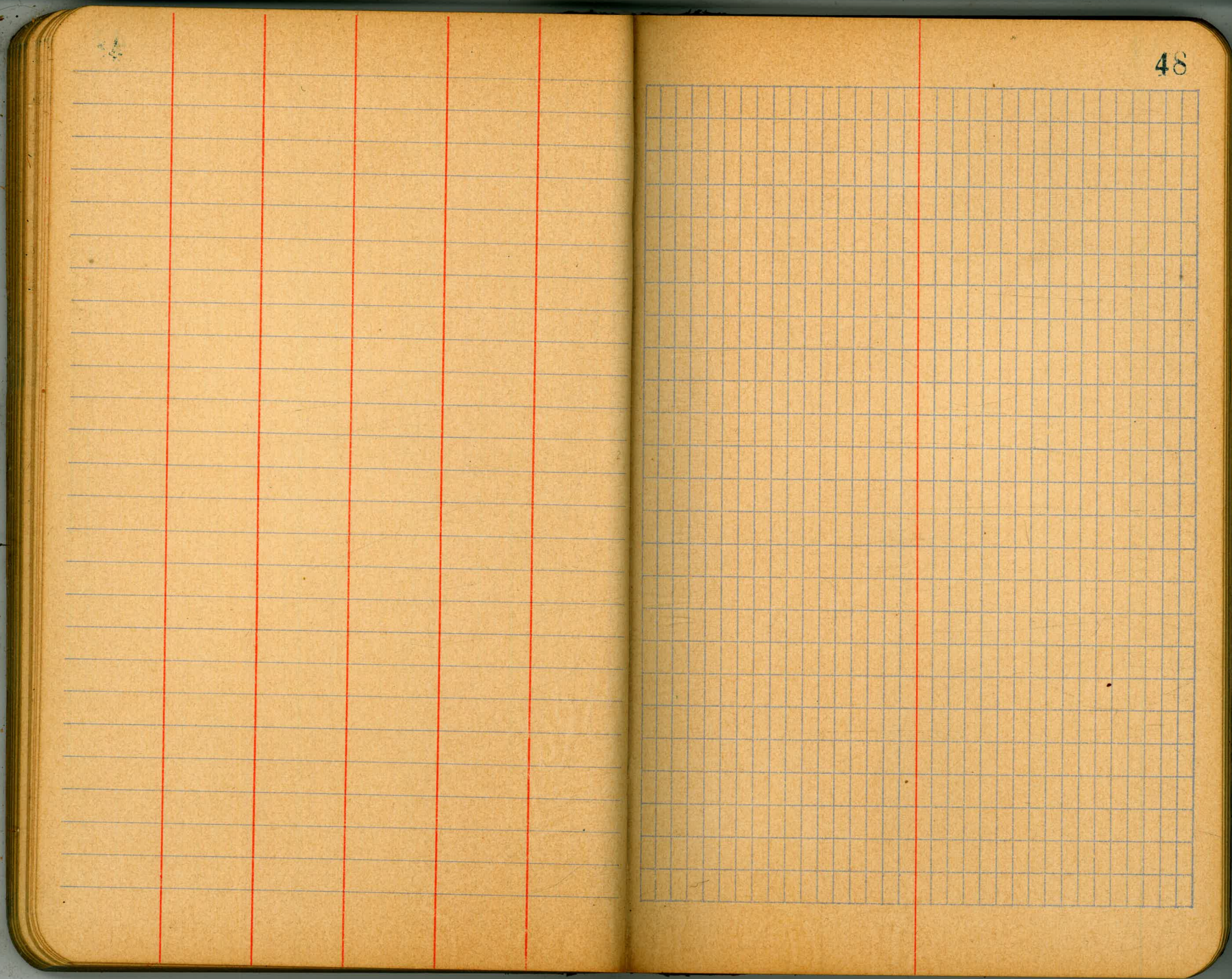
2+47 = Nly. of Dis

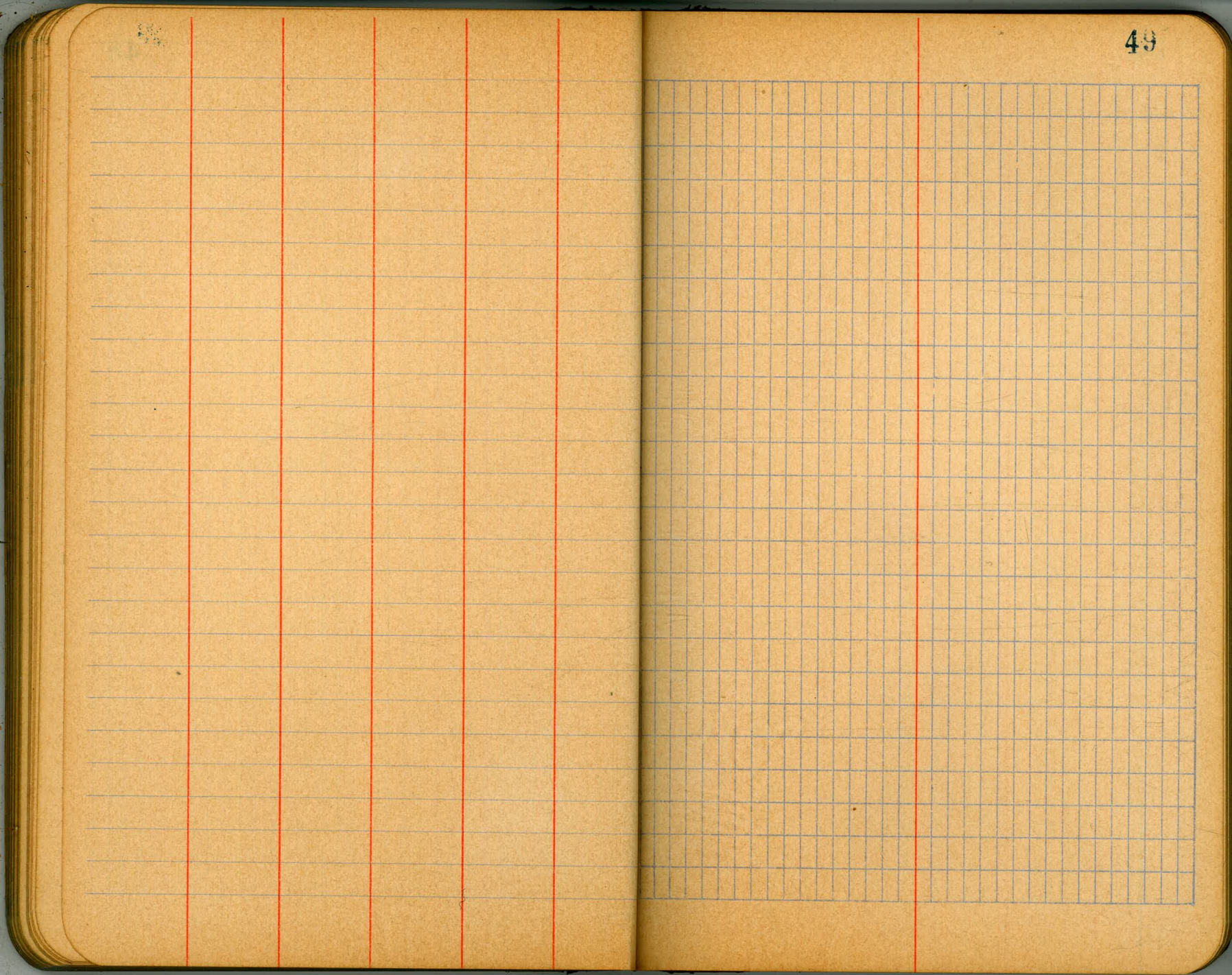


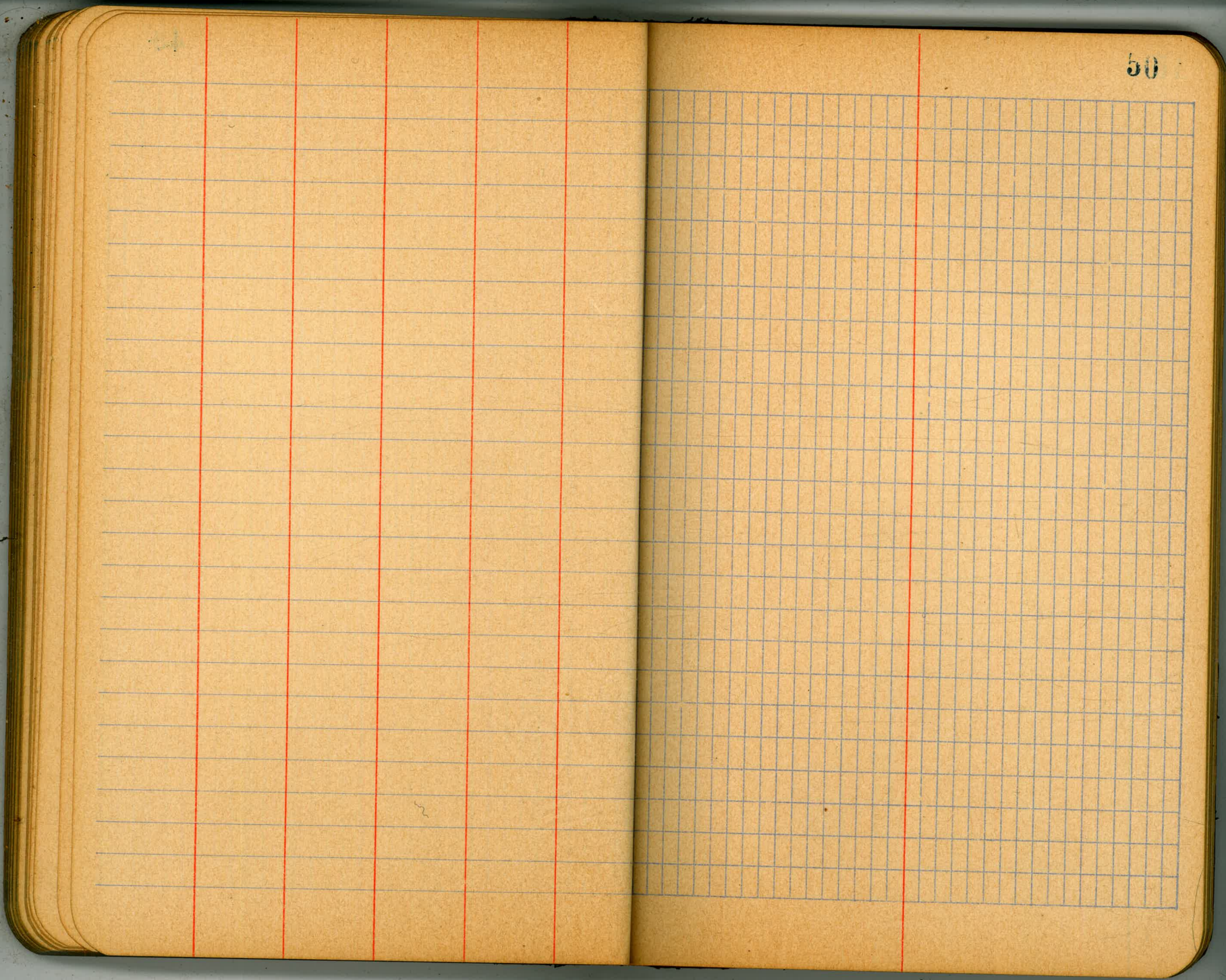




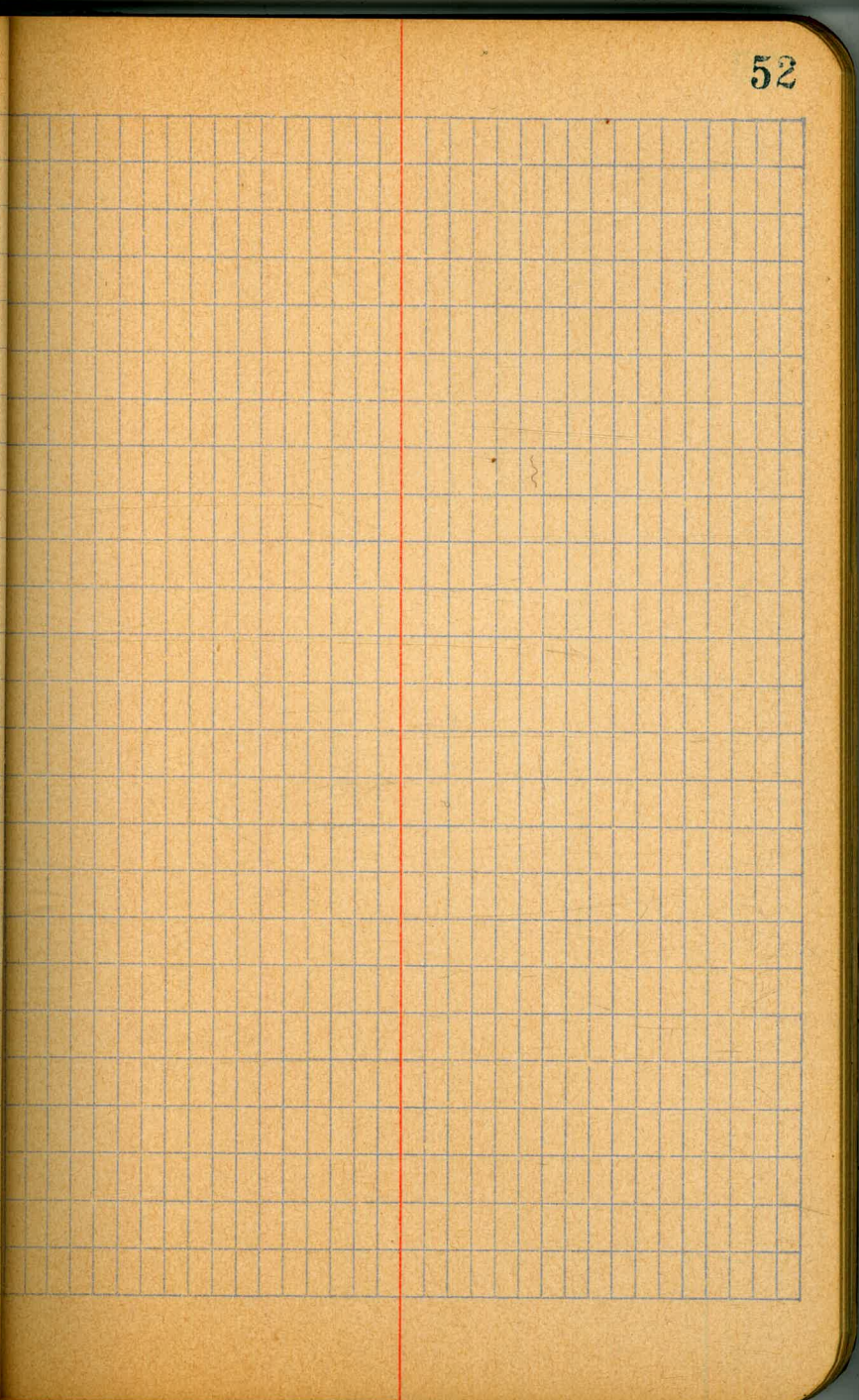
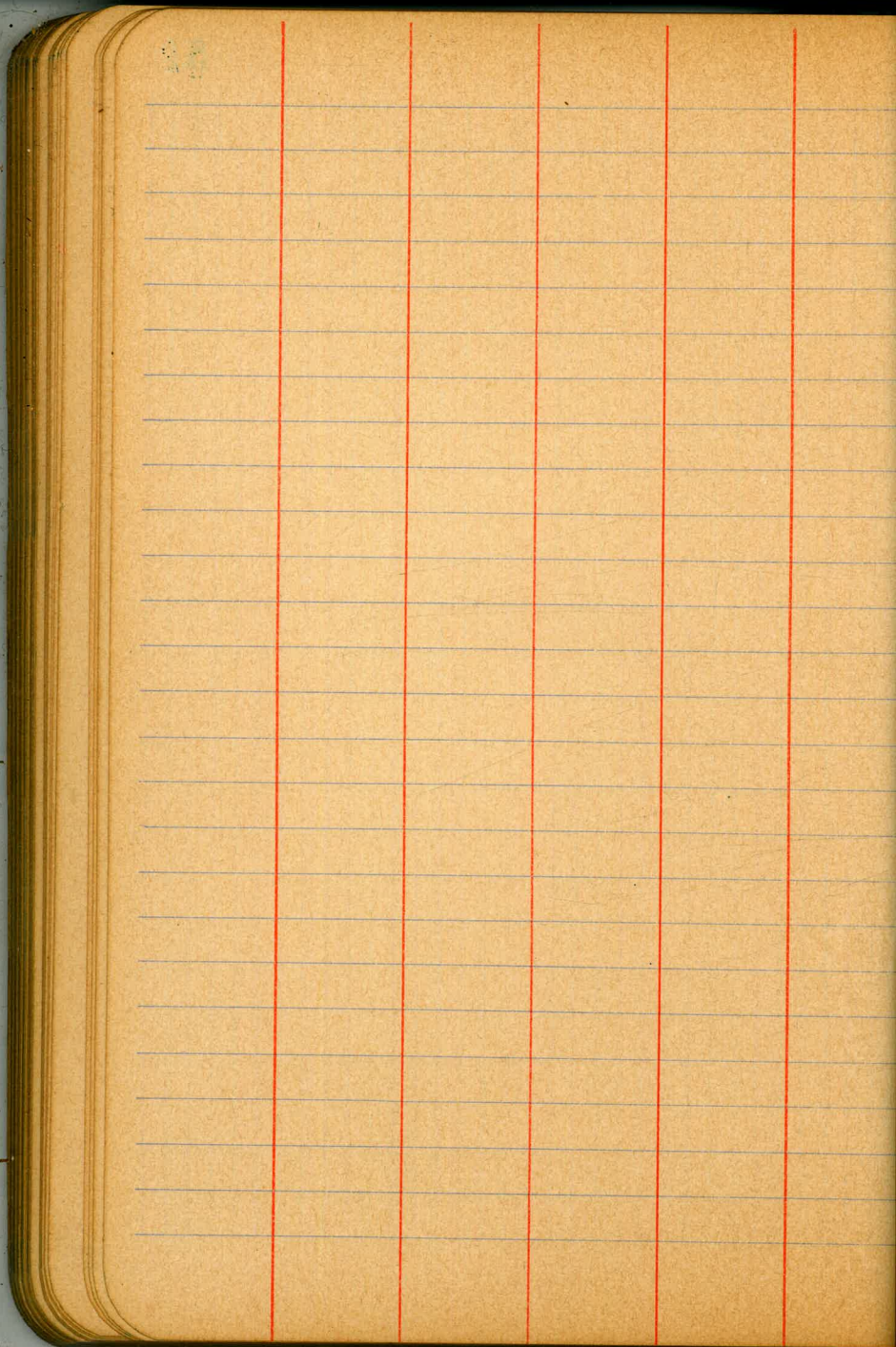


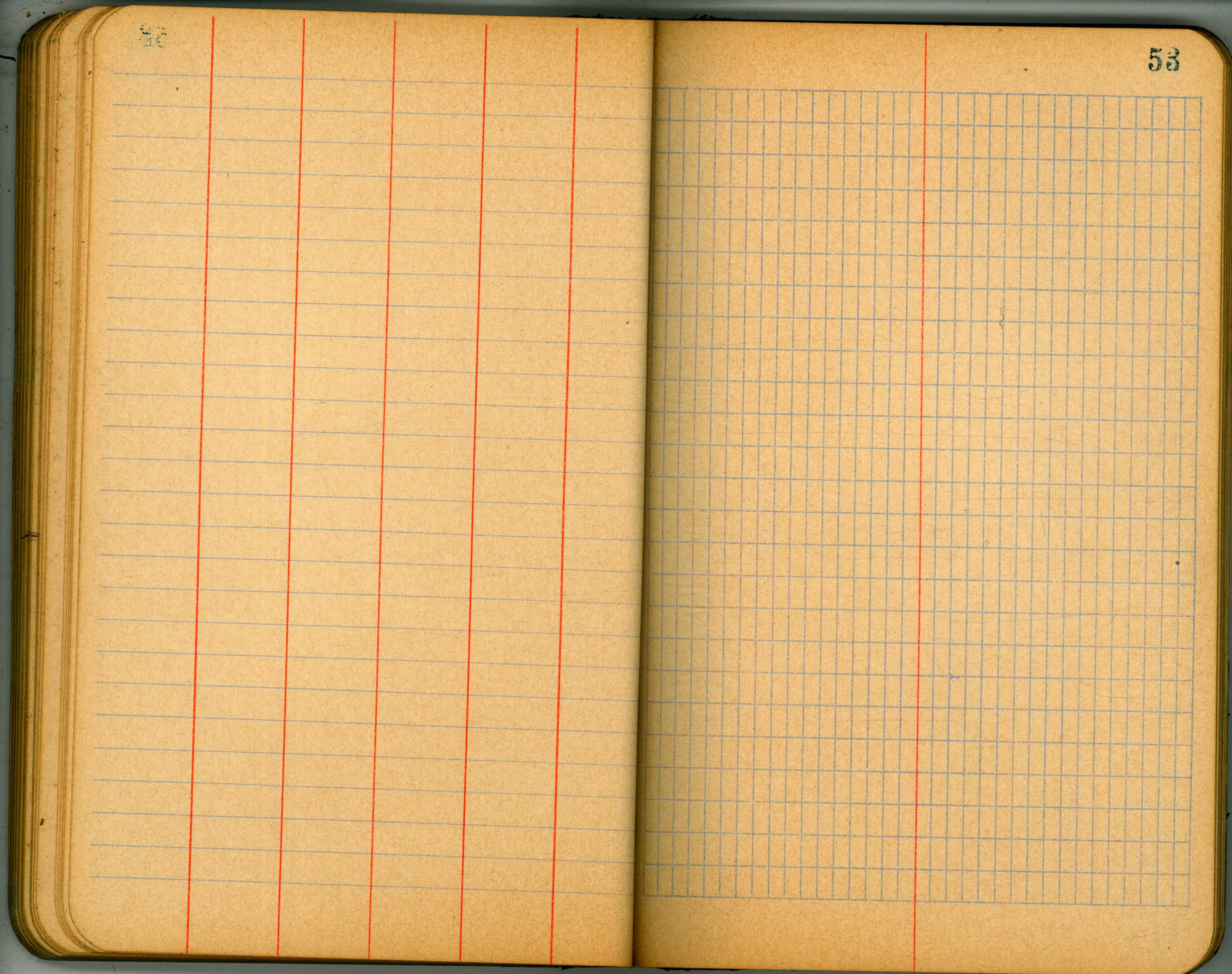


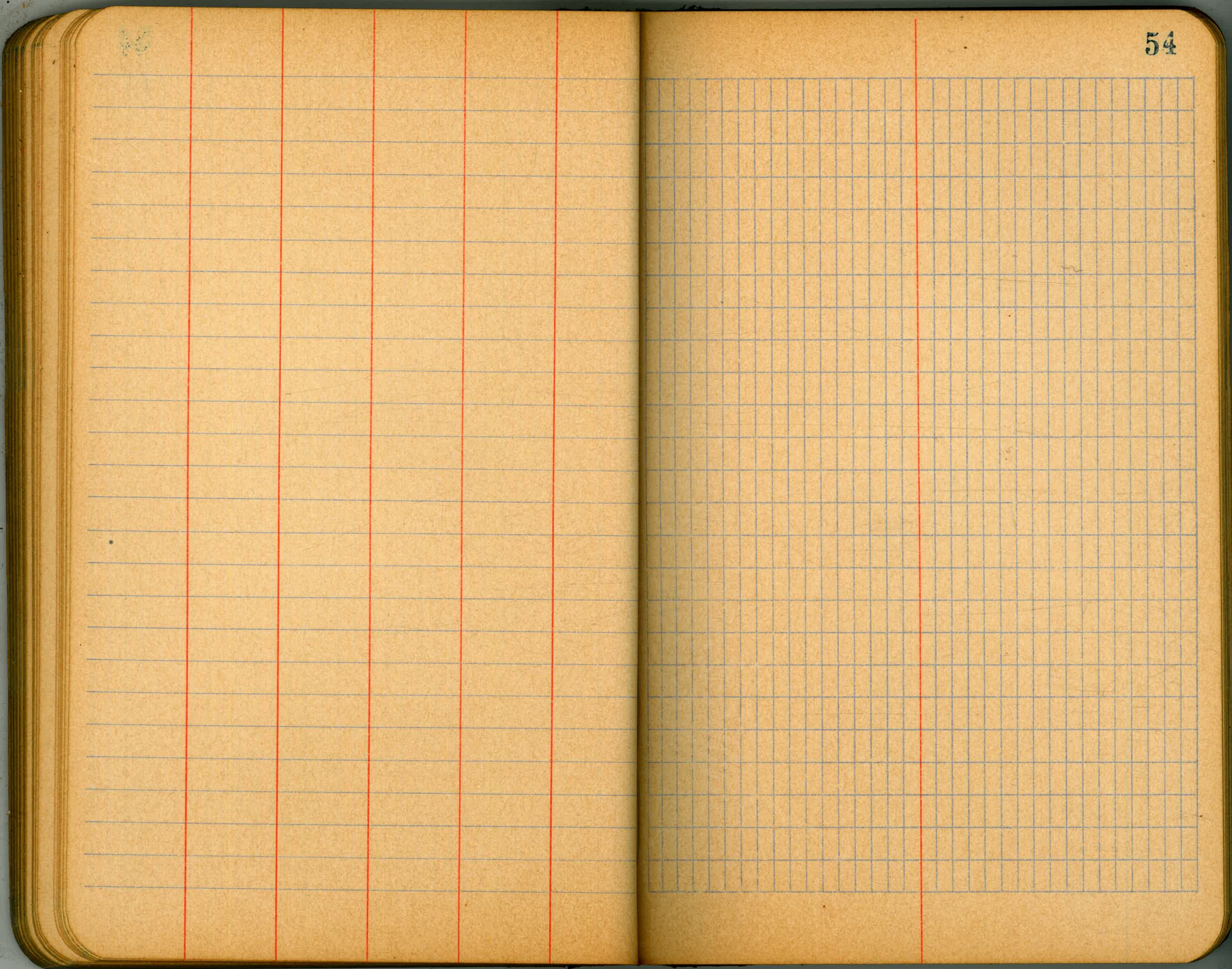


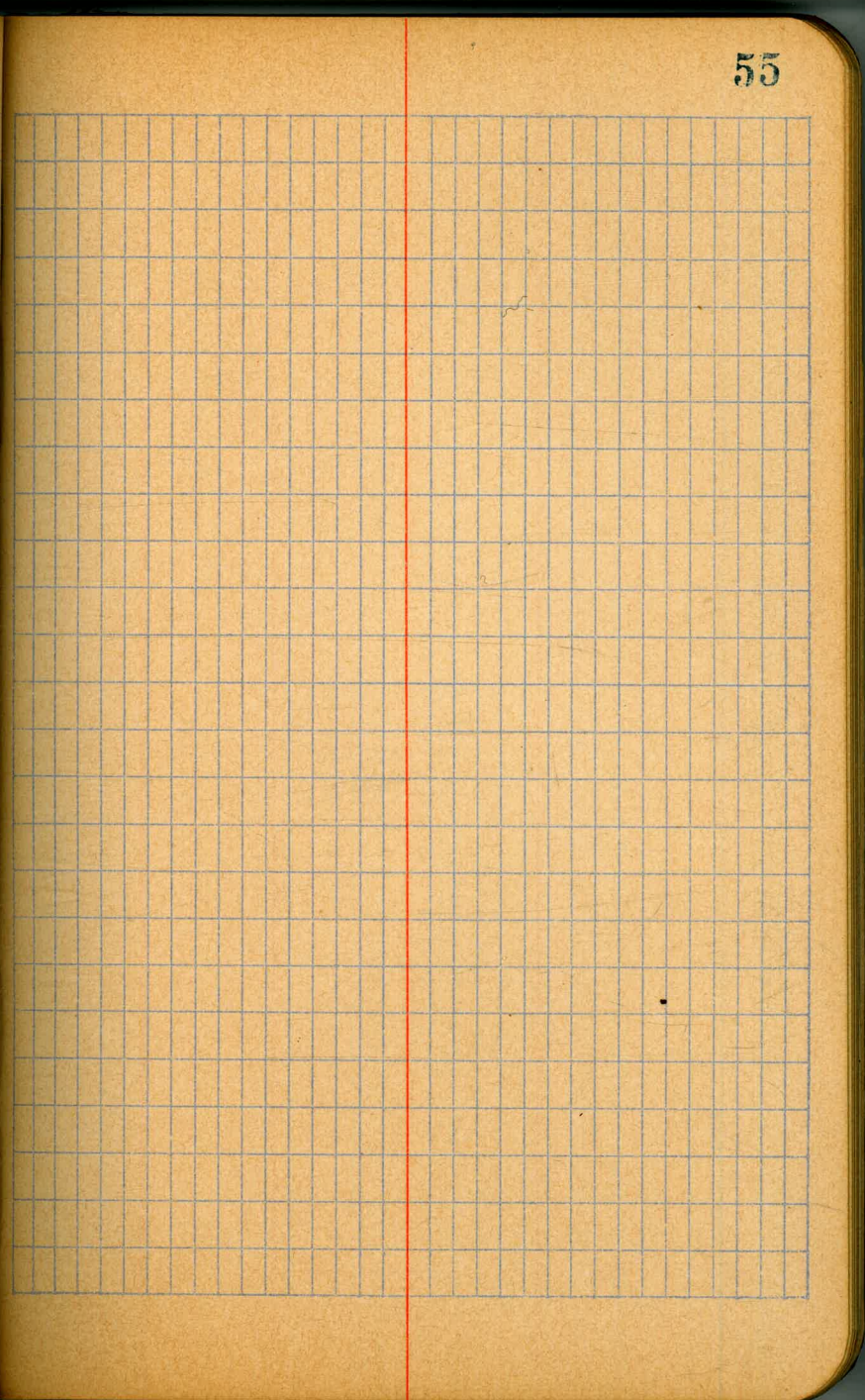
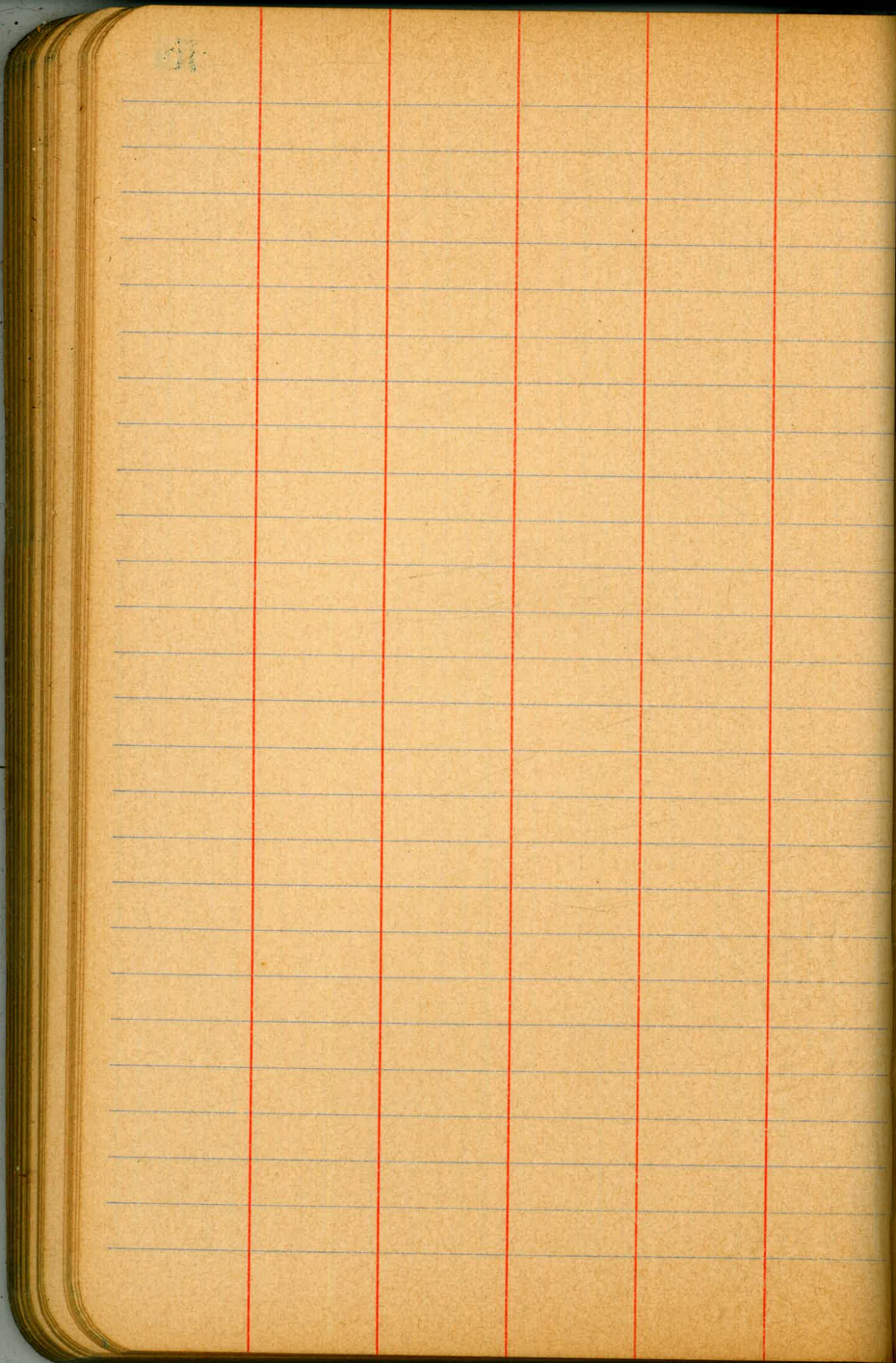


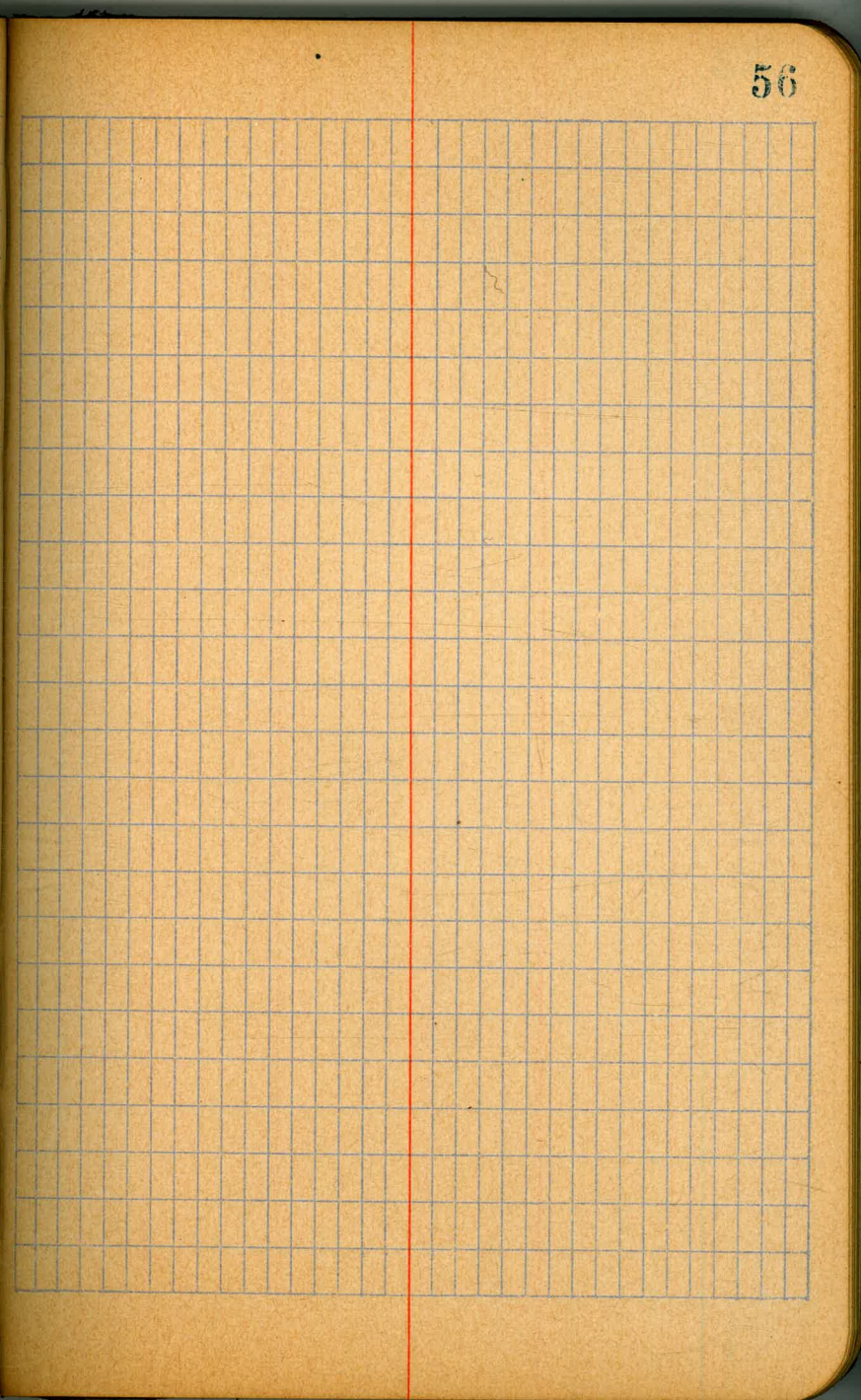
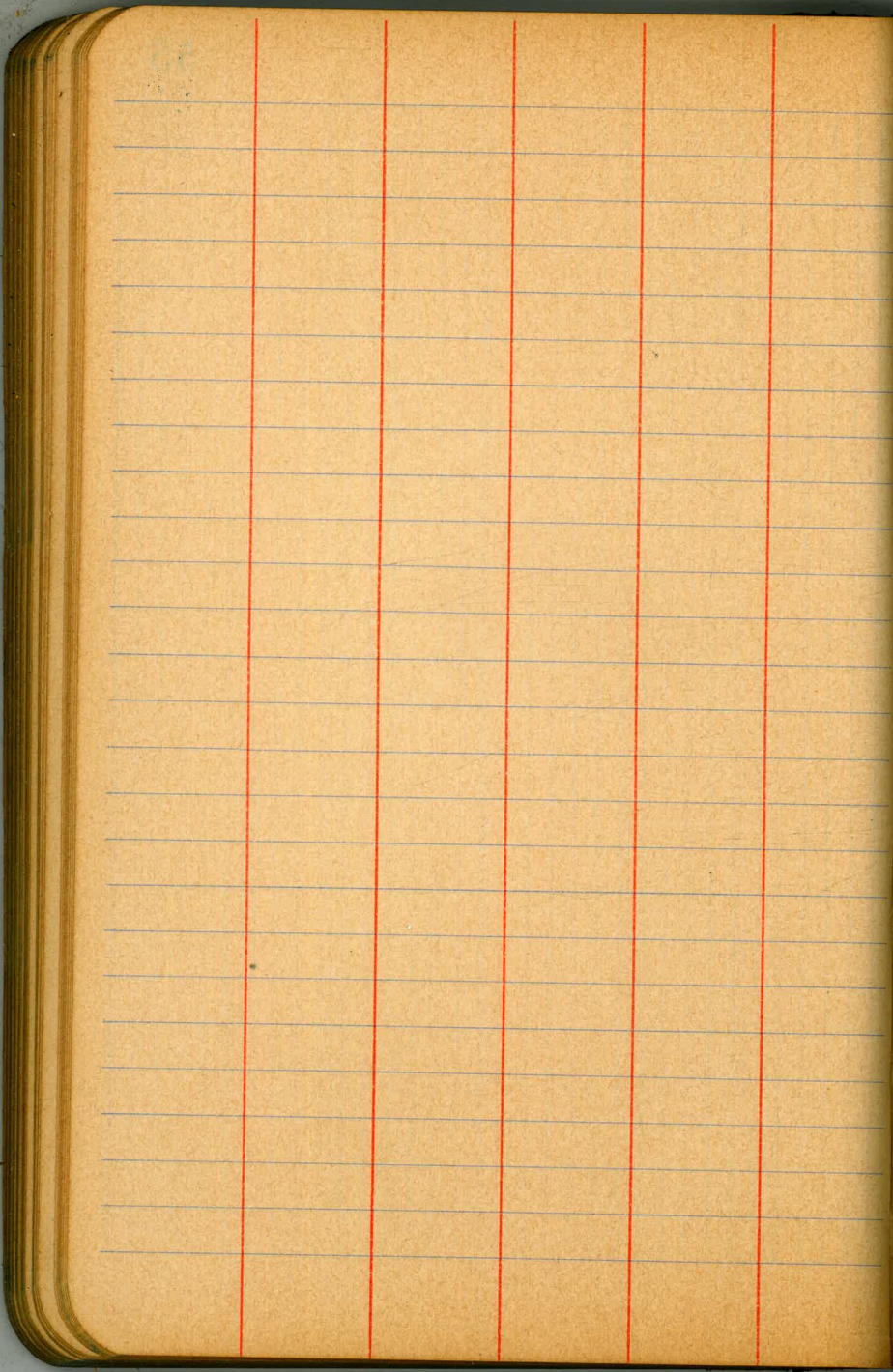
The image shows an open notebook with two pages. The left page is ruled with horizontal lines and has a red margin line on the left side. The right page is ruled with a grid of horizontal and vertical lines, with a red margin line on the left side. The number '16' is printed in the top left corner of the left page, and the number '51' is printed in the top right corner of the right page.

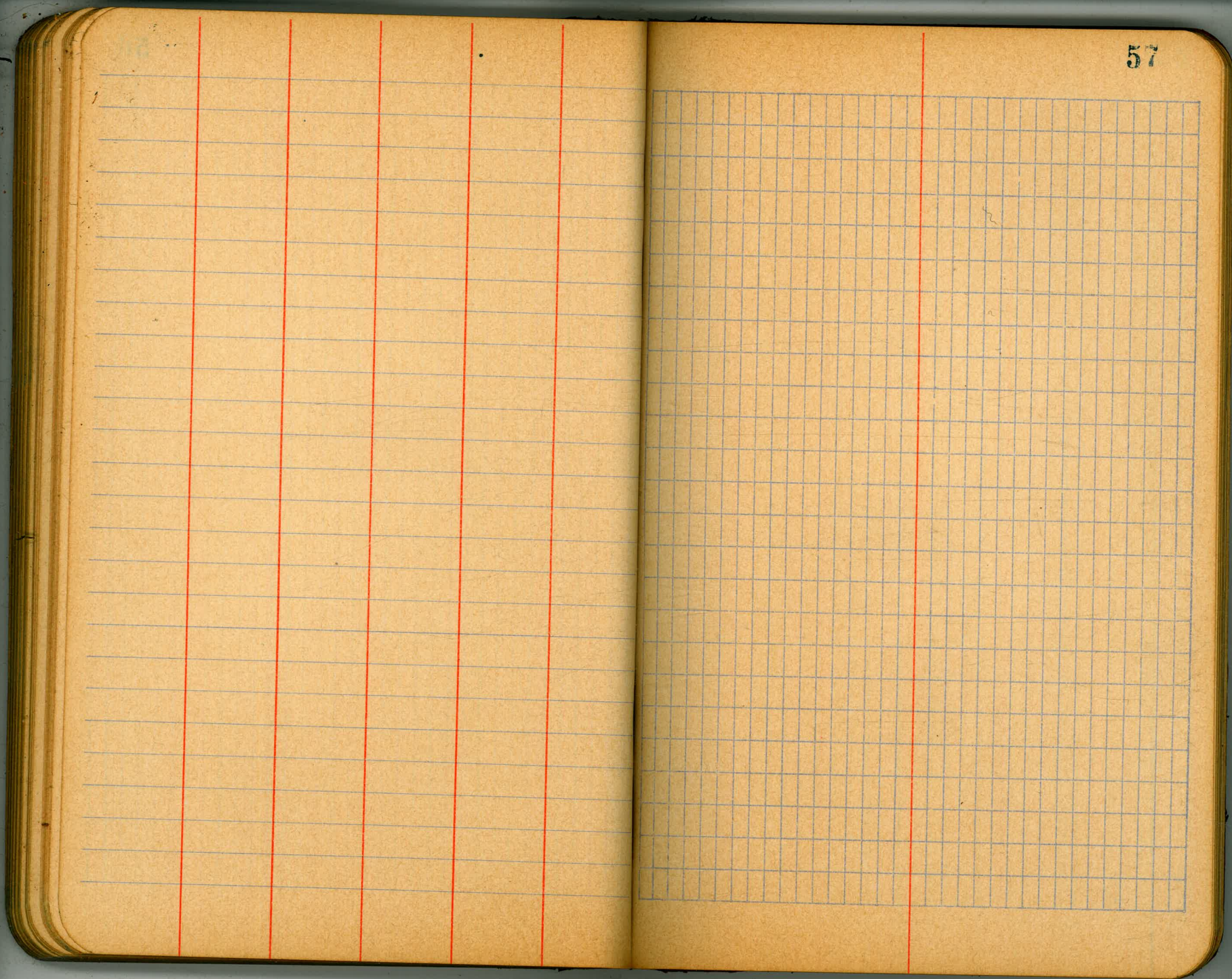


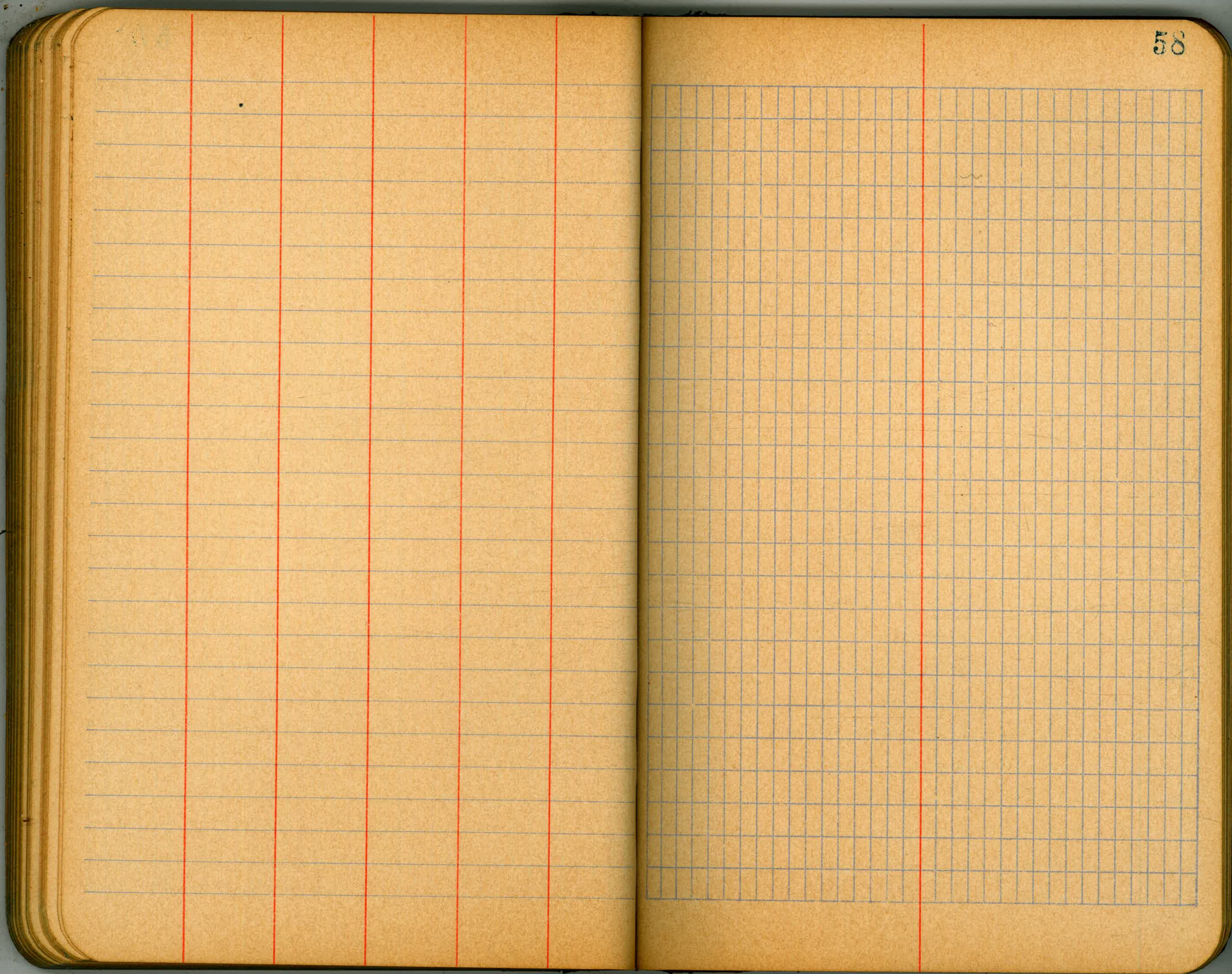


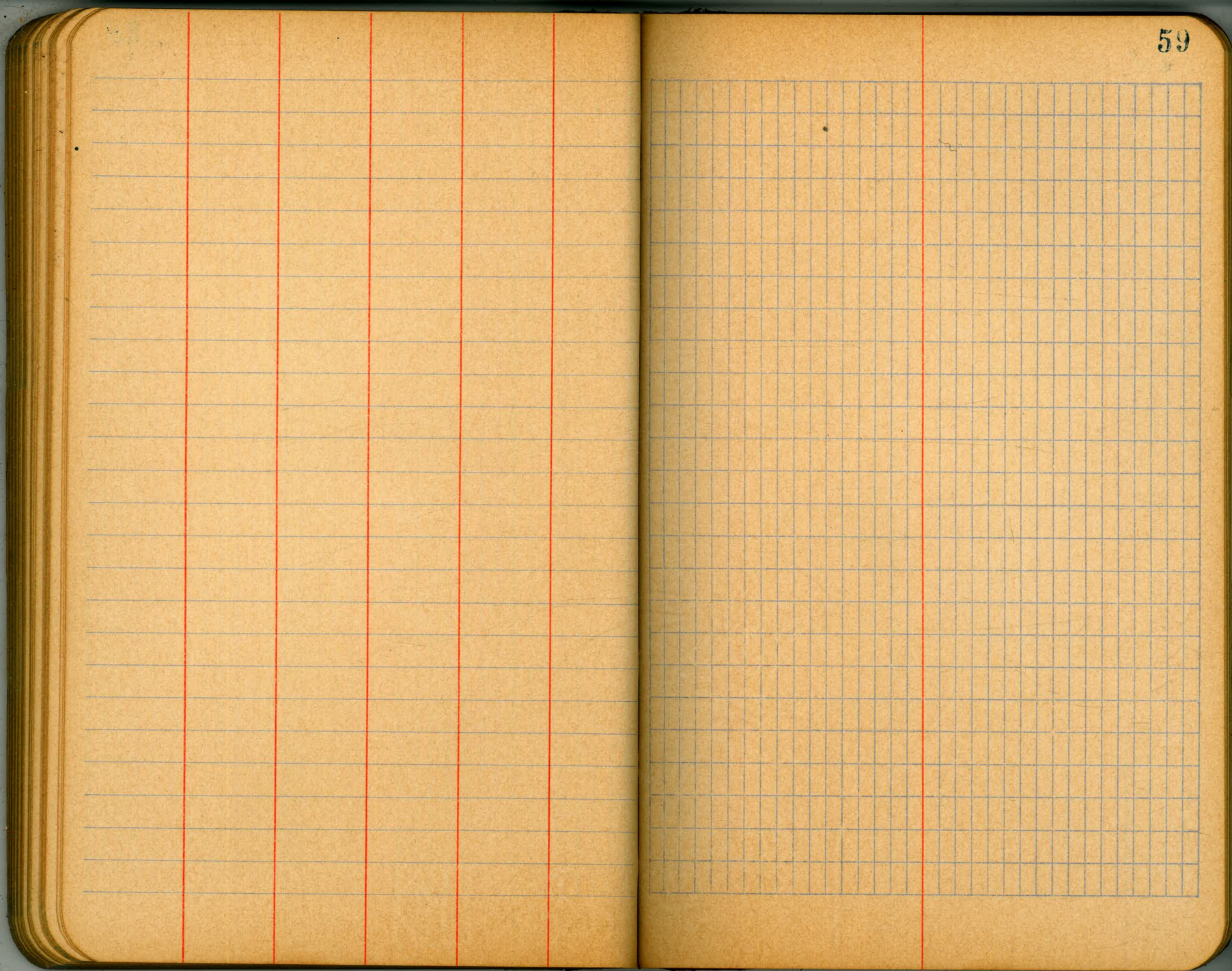


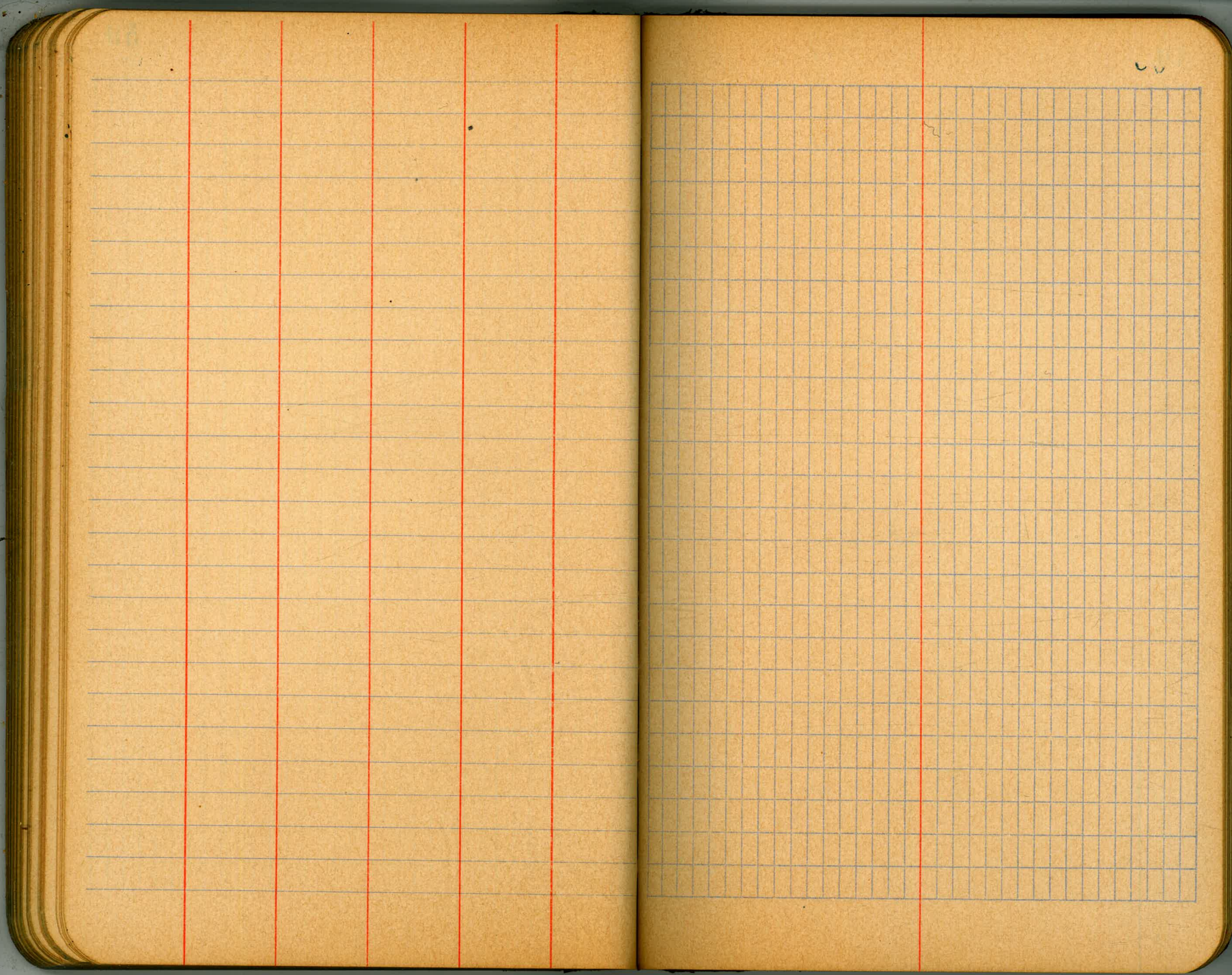


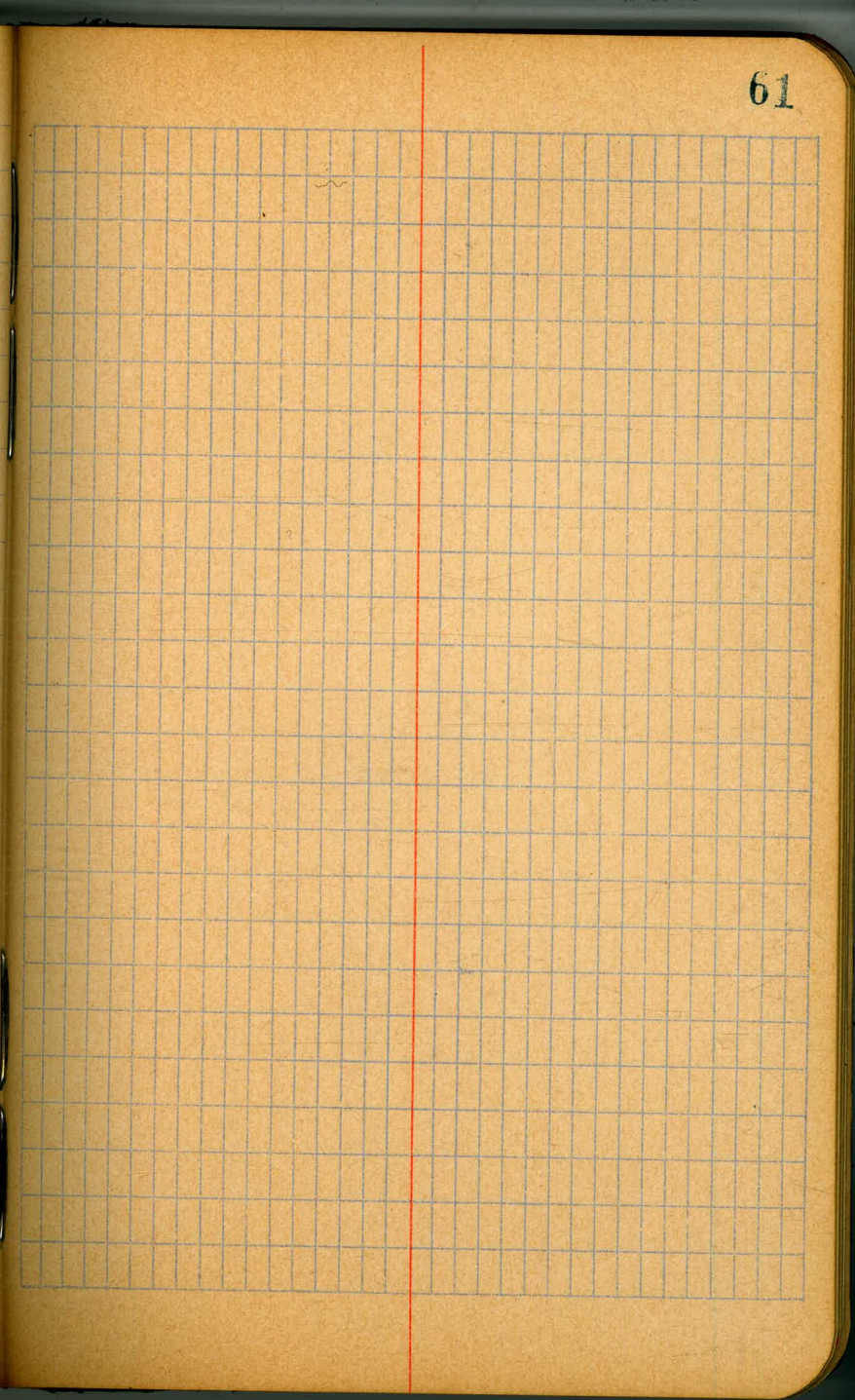
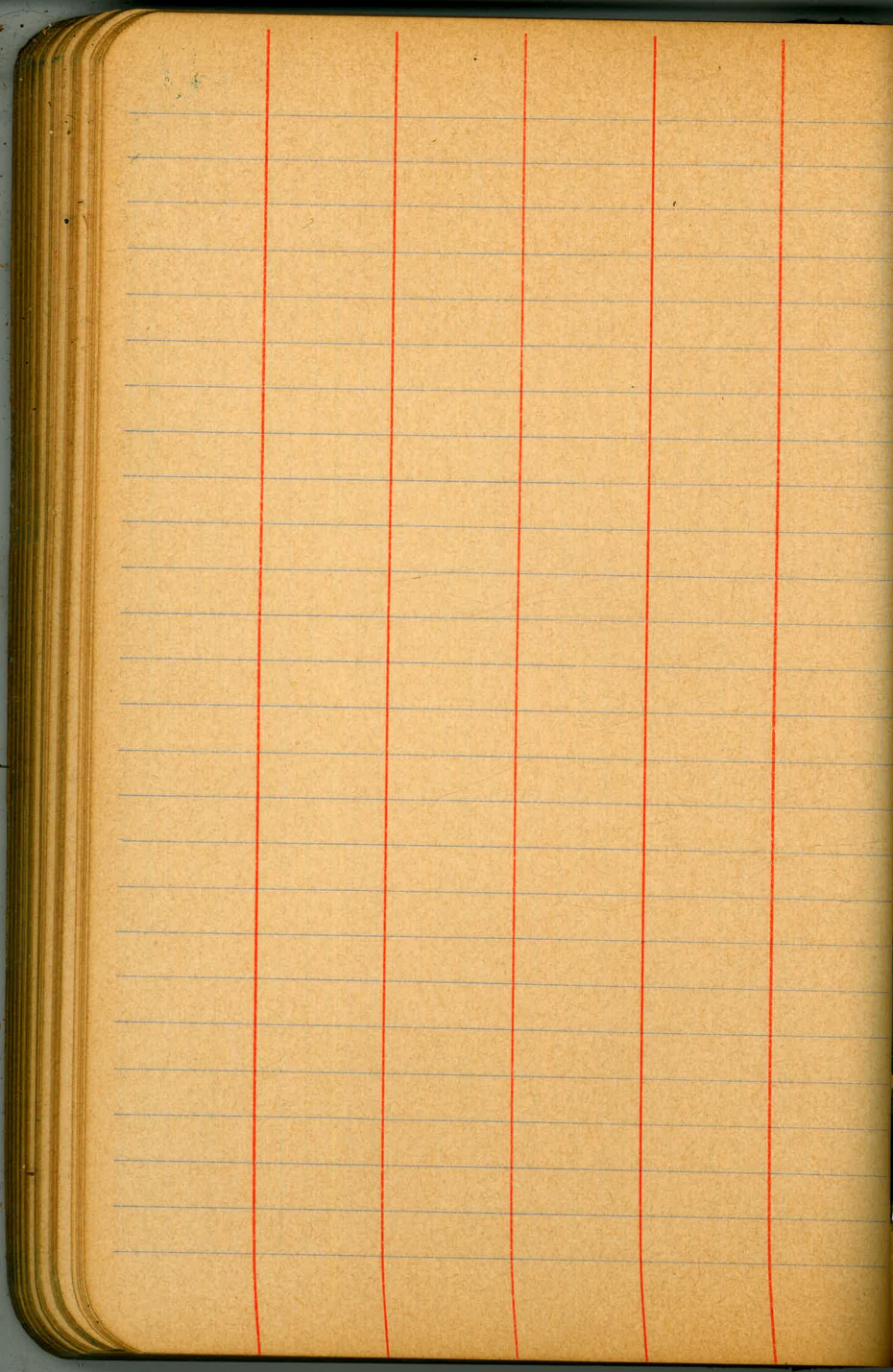






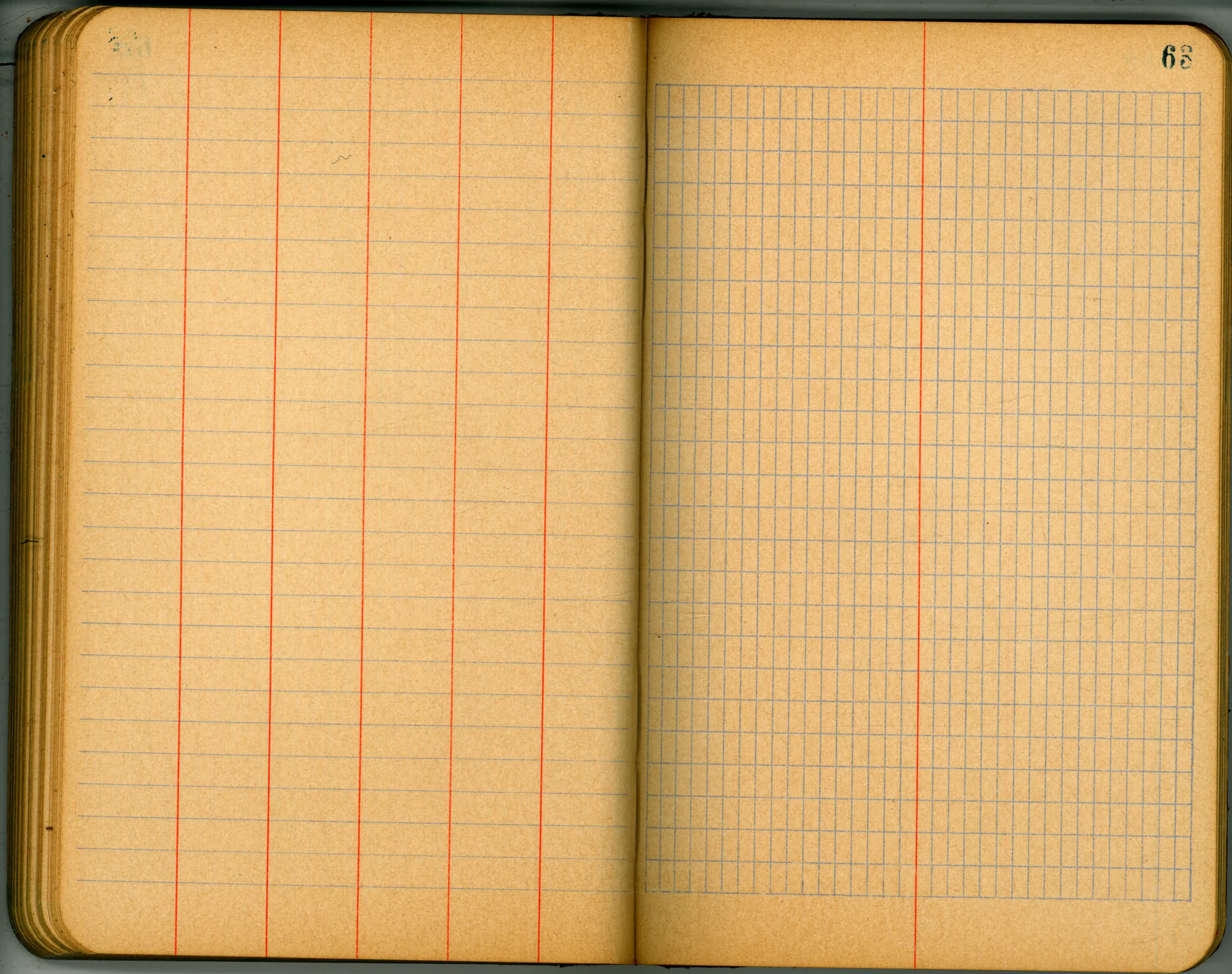


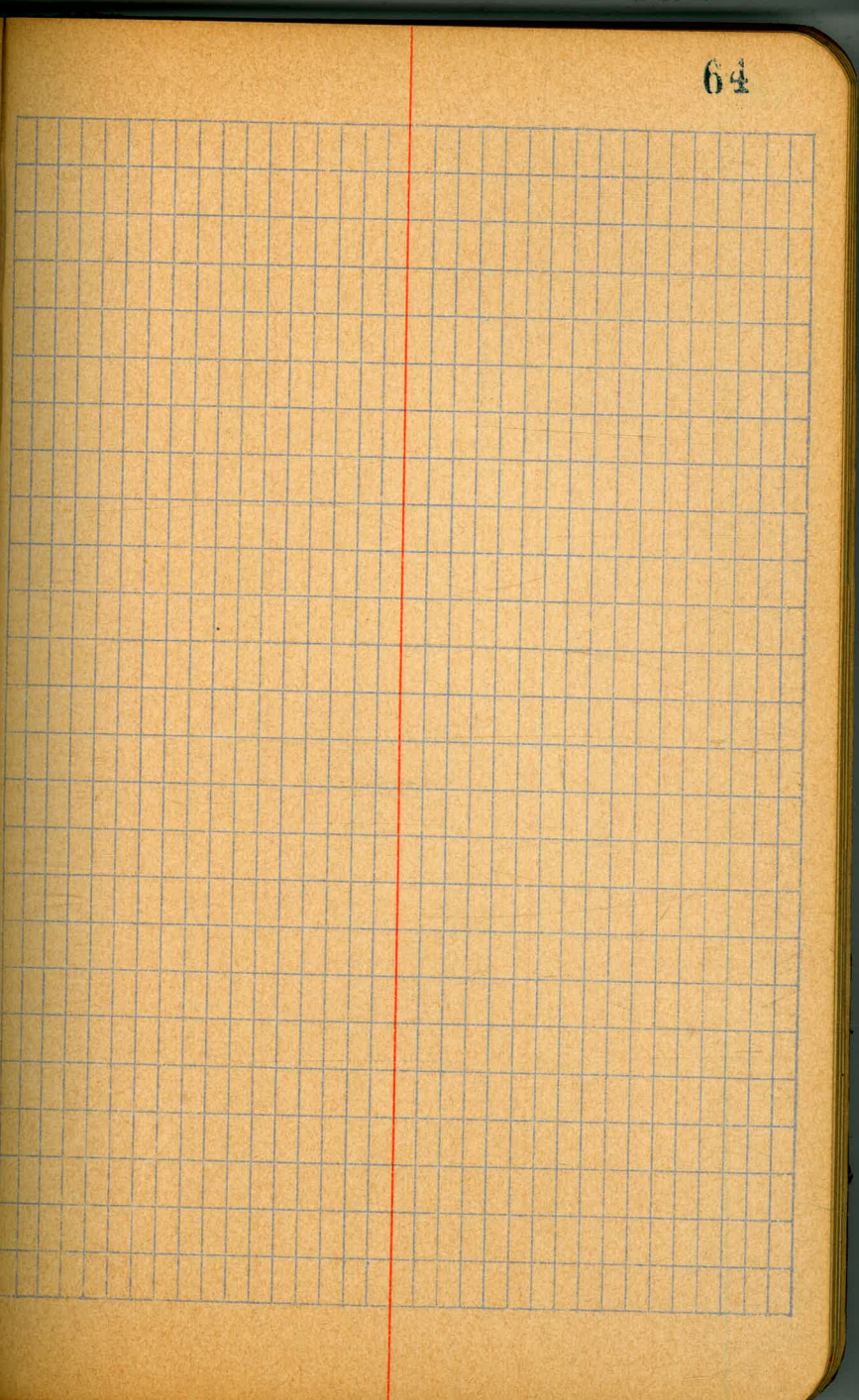
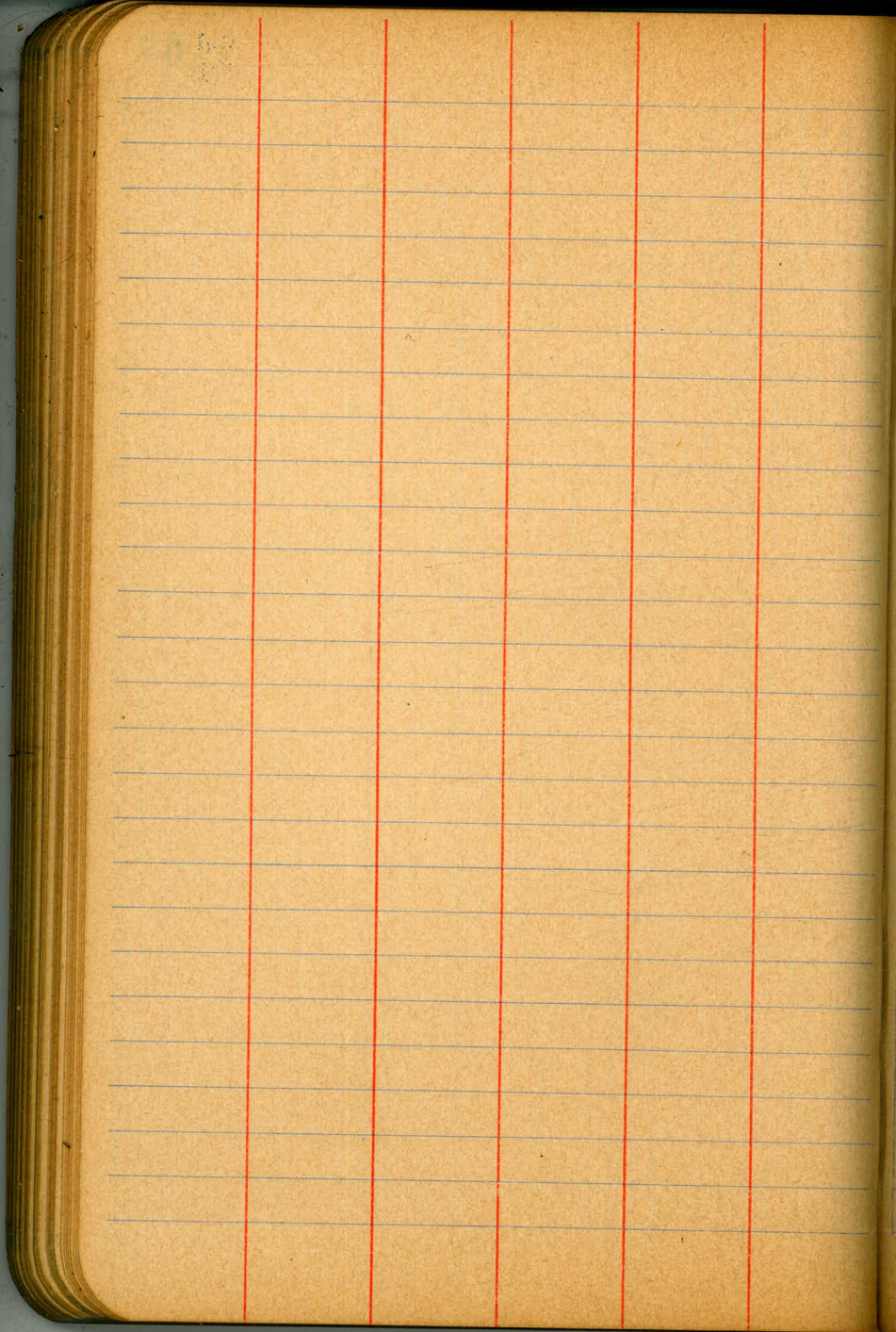




A ledger page with a light brown background, horizontal blue lines, and four vertical red lines creating five columns. The columns are of varying widths, with the two inner columns being the widest. The page is otherwise blank.

A ledger page with a light brown background, horizontal blue lines, and a single vertical red line on the left side. The right side of the page is filled with a fine grid of blue lines, creating a narrow column on the left and a large grid area on the right. The page is otherwise blank.

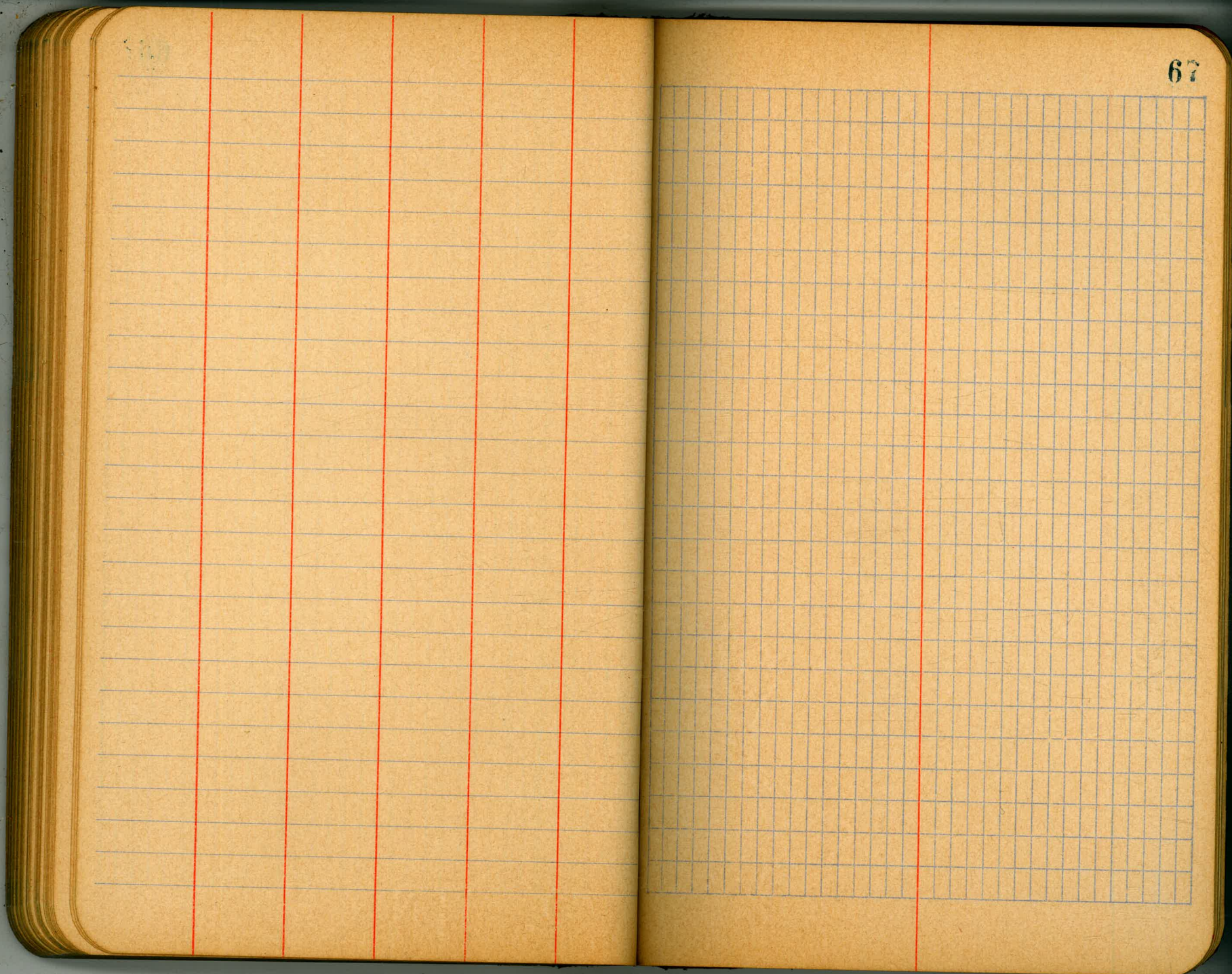




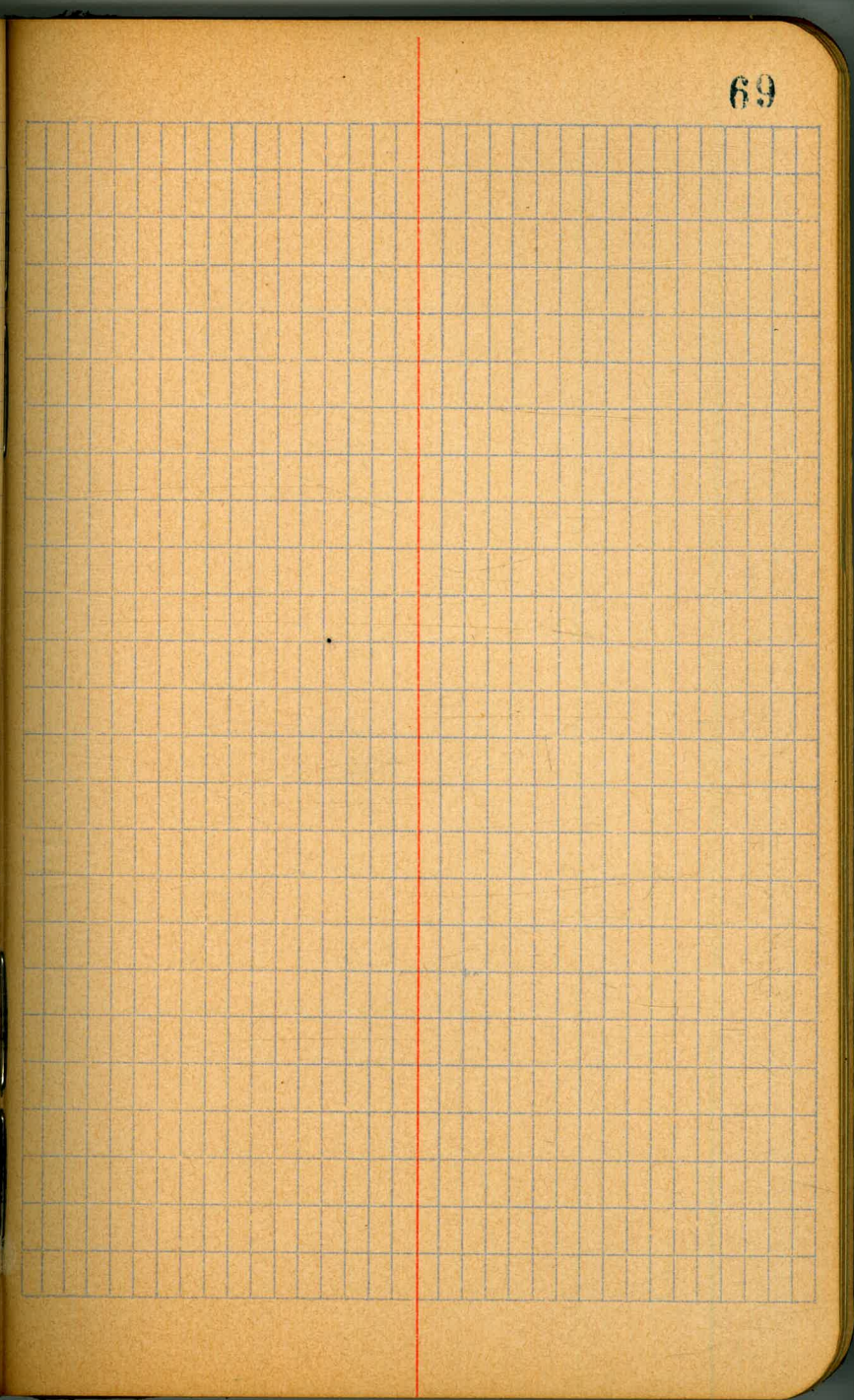
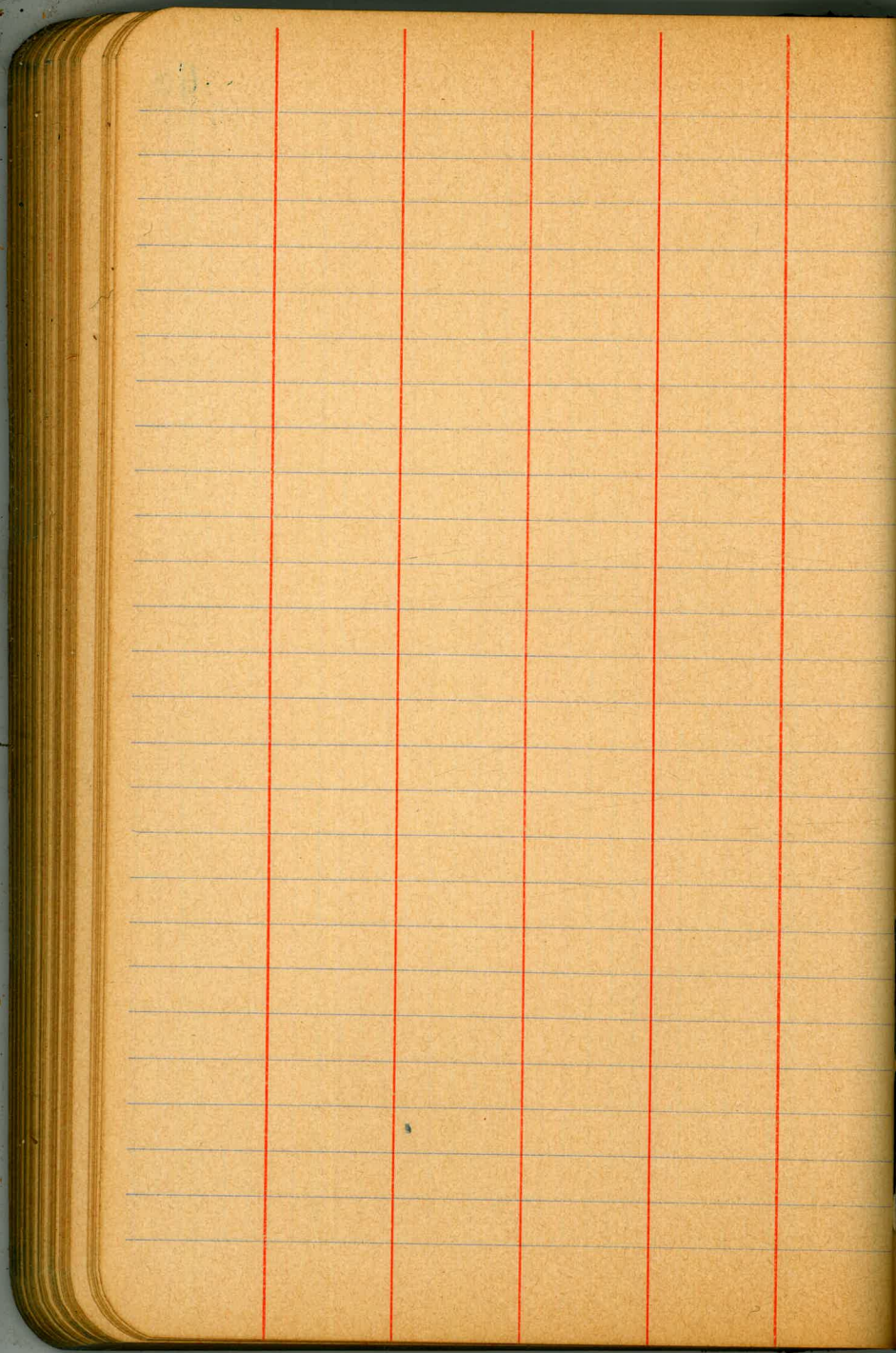
Blank ledger page with horizontal ruling and vertical red lines on page 64, and a grid pattern on page 65.

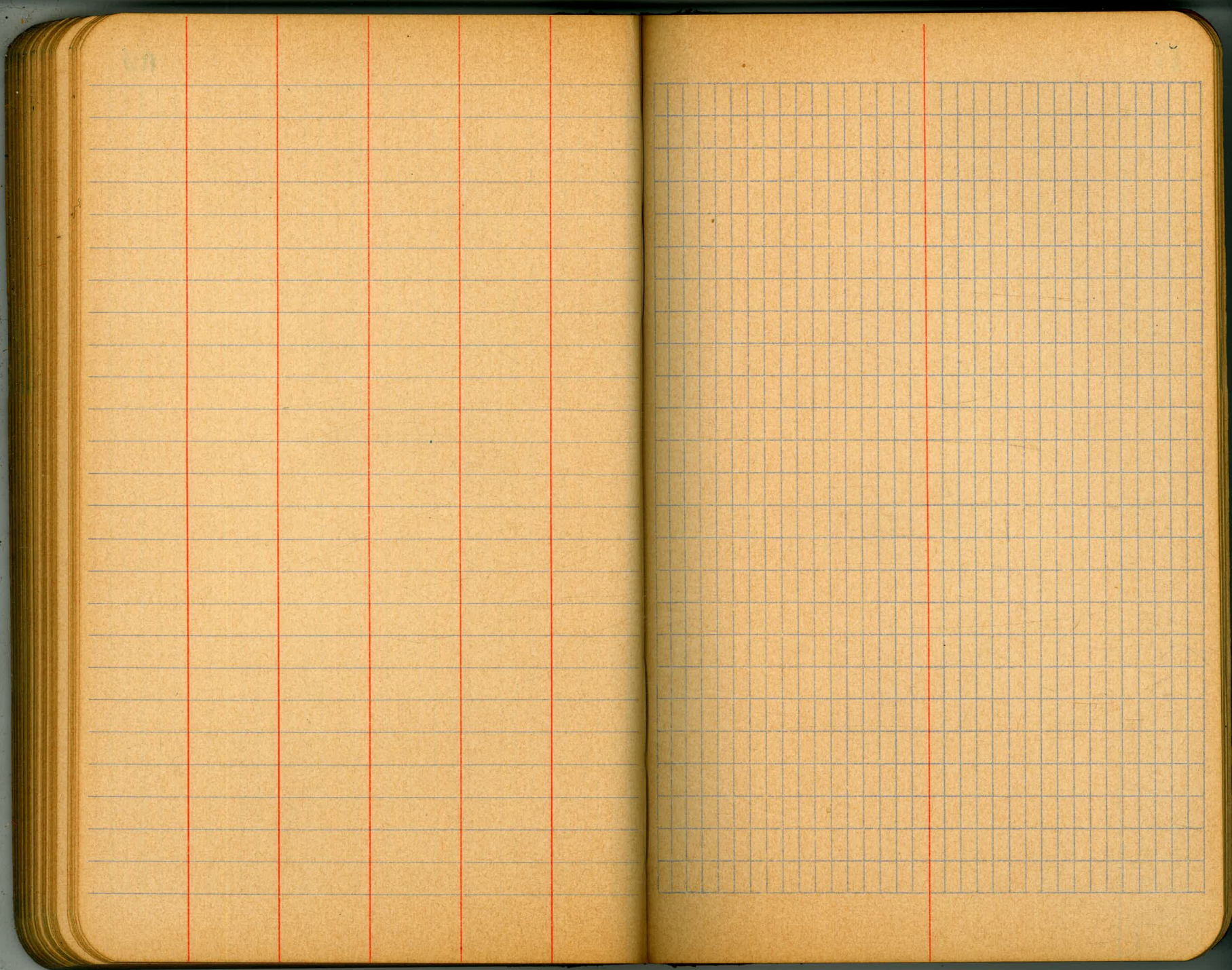
This page features horizontal blue ruling lines spaced evenly down the page. It is divided into four vertical columns by three red lines. The columns are of varying widths, with the two inner columns being the narrowest and the two outer columns being wider. The page is otherwise blank.

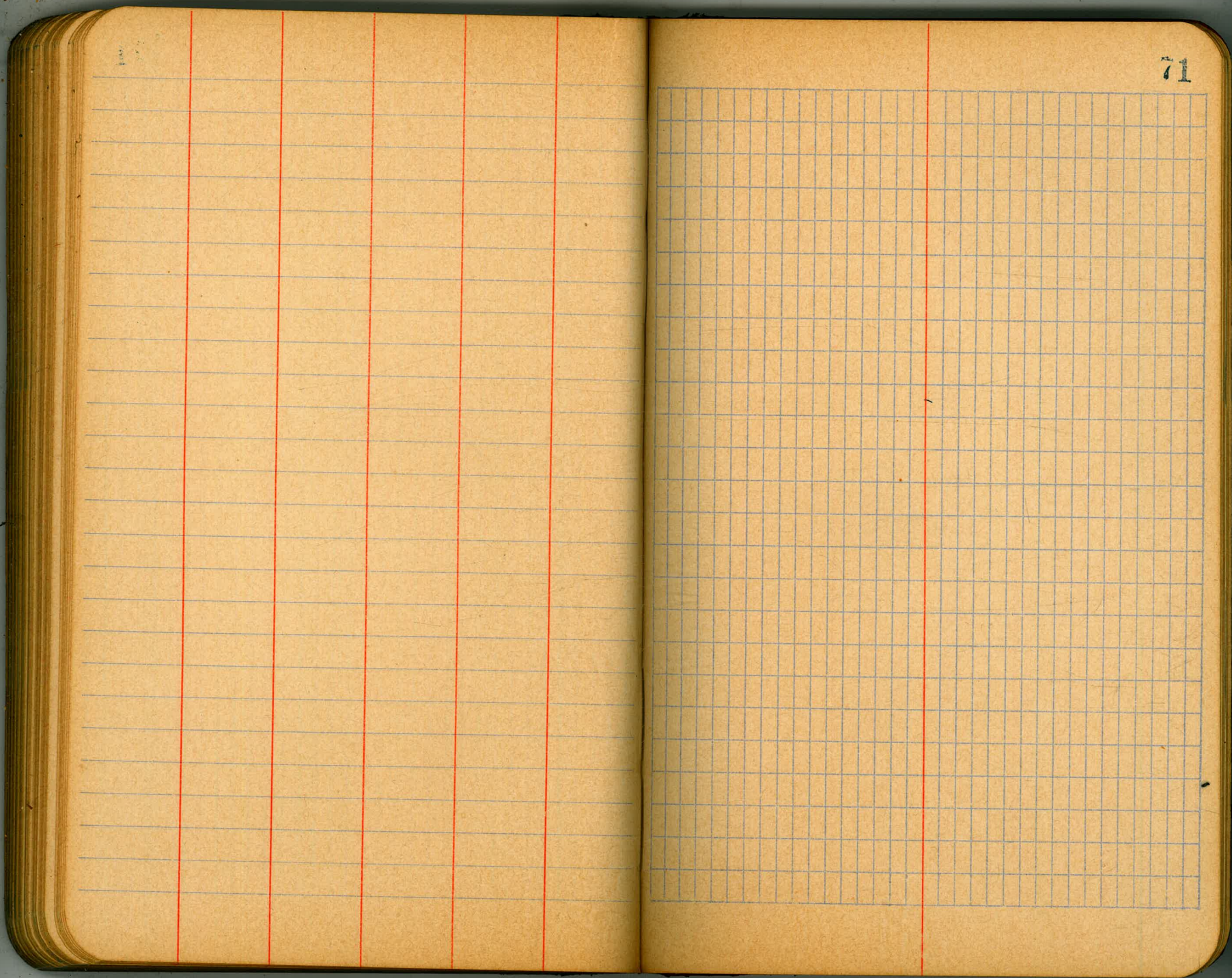
This page features horizontal blue ruling lines. A single vertical red line is positioned on the left side, creating a narrow margin. The majority of the page is occupied by a large grid of blue lines, forming a table with 15 columns and 25 rows. The grid is enclosed in a blue border. The page is otherwise blank.

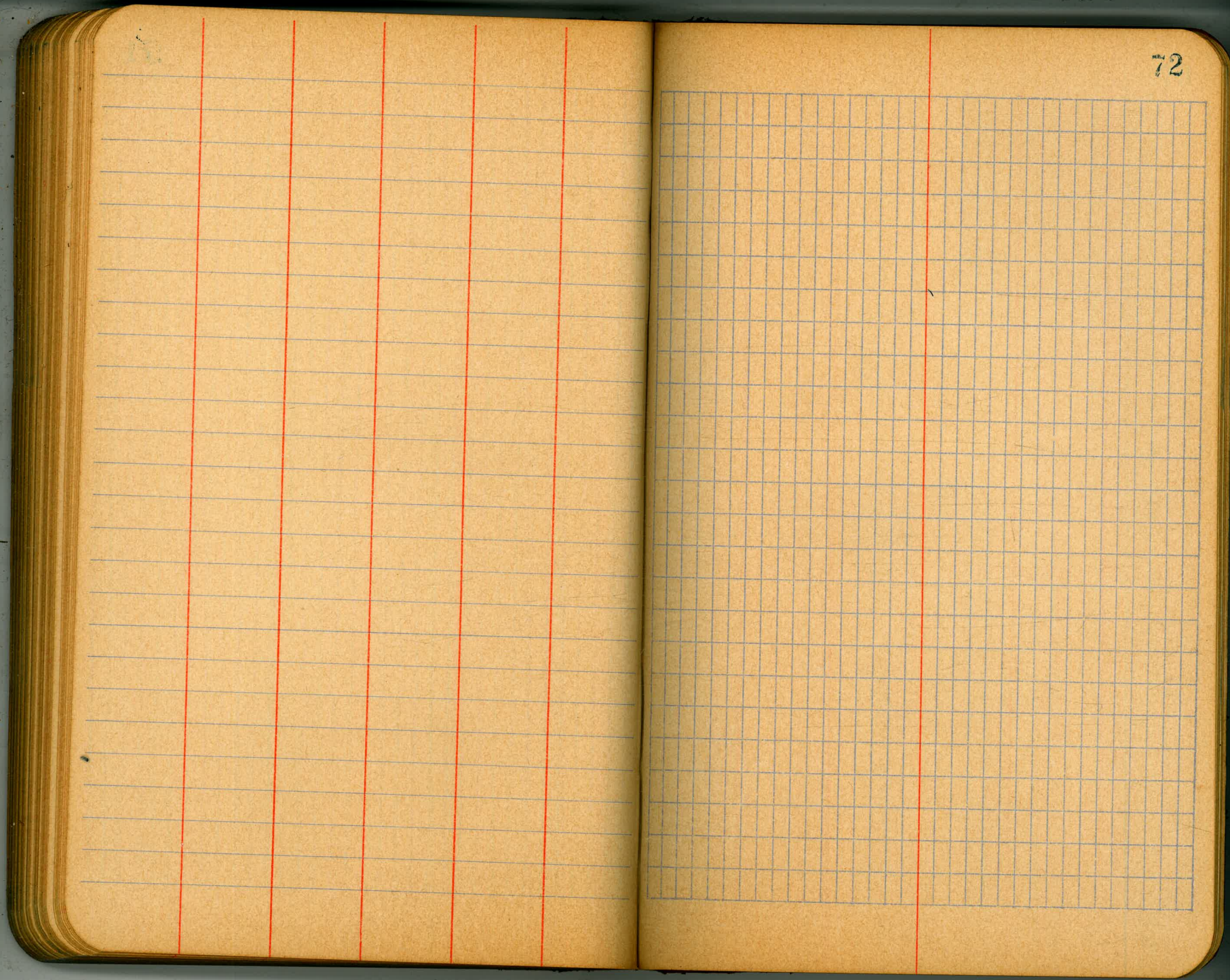


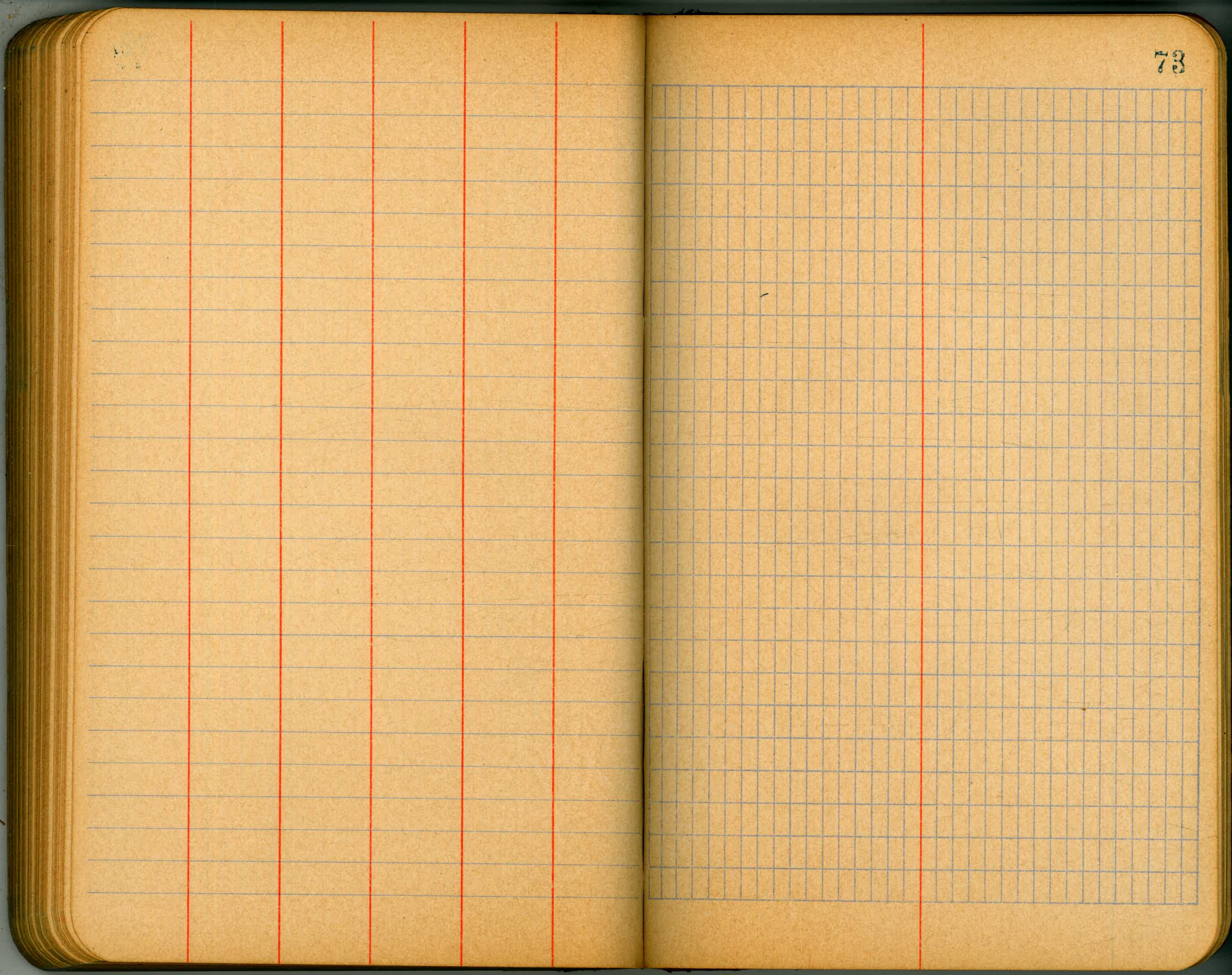


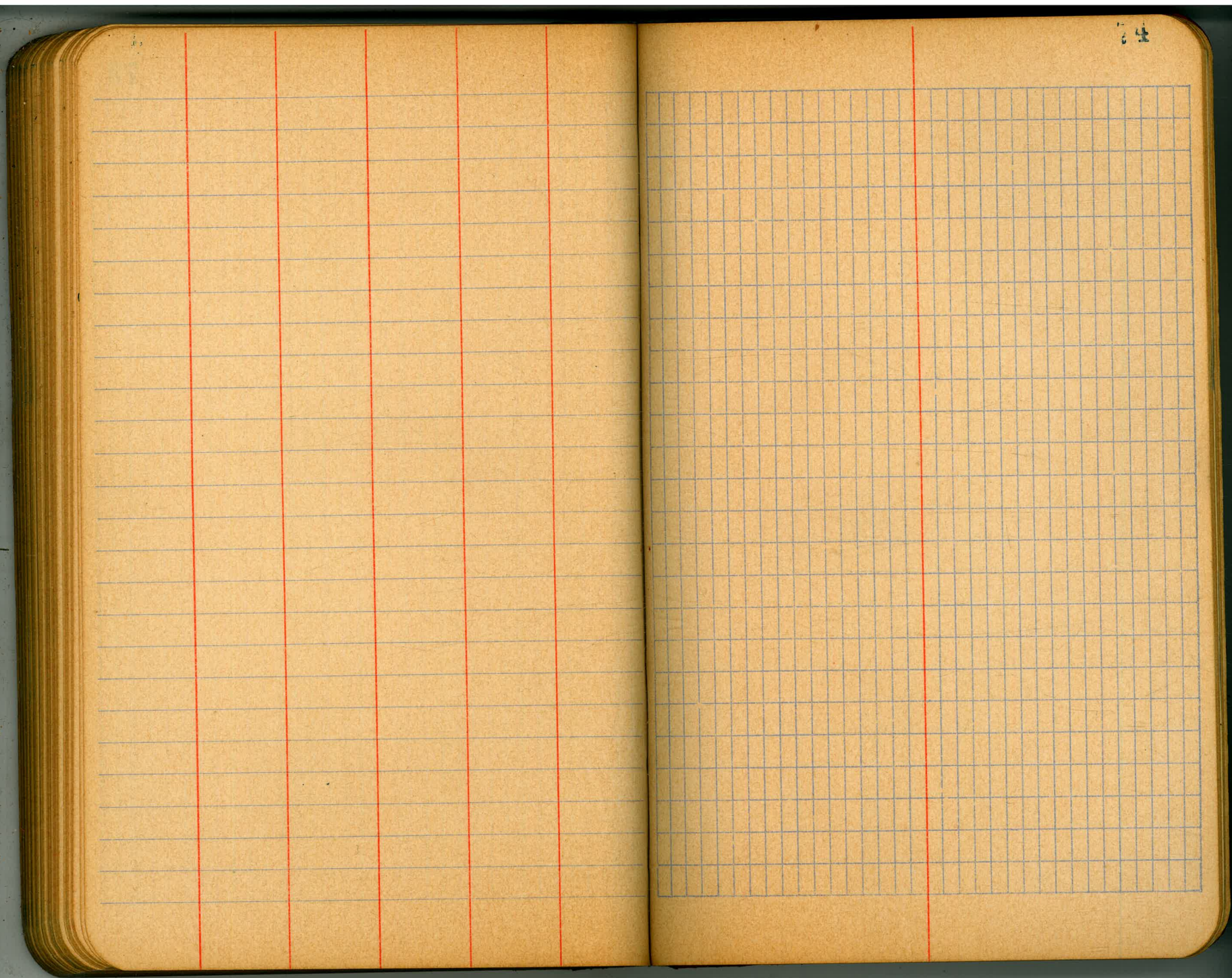


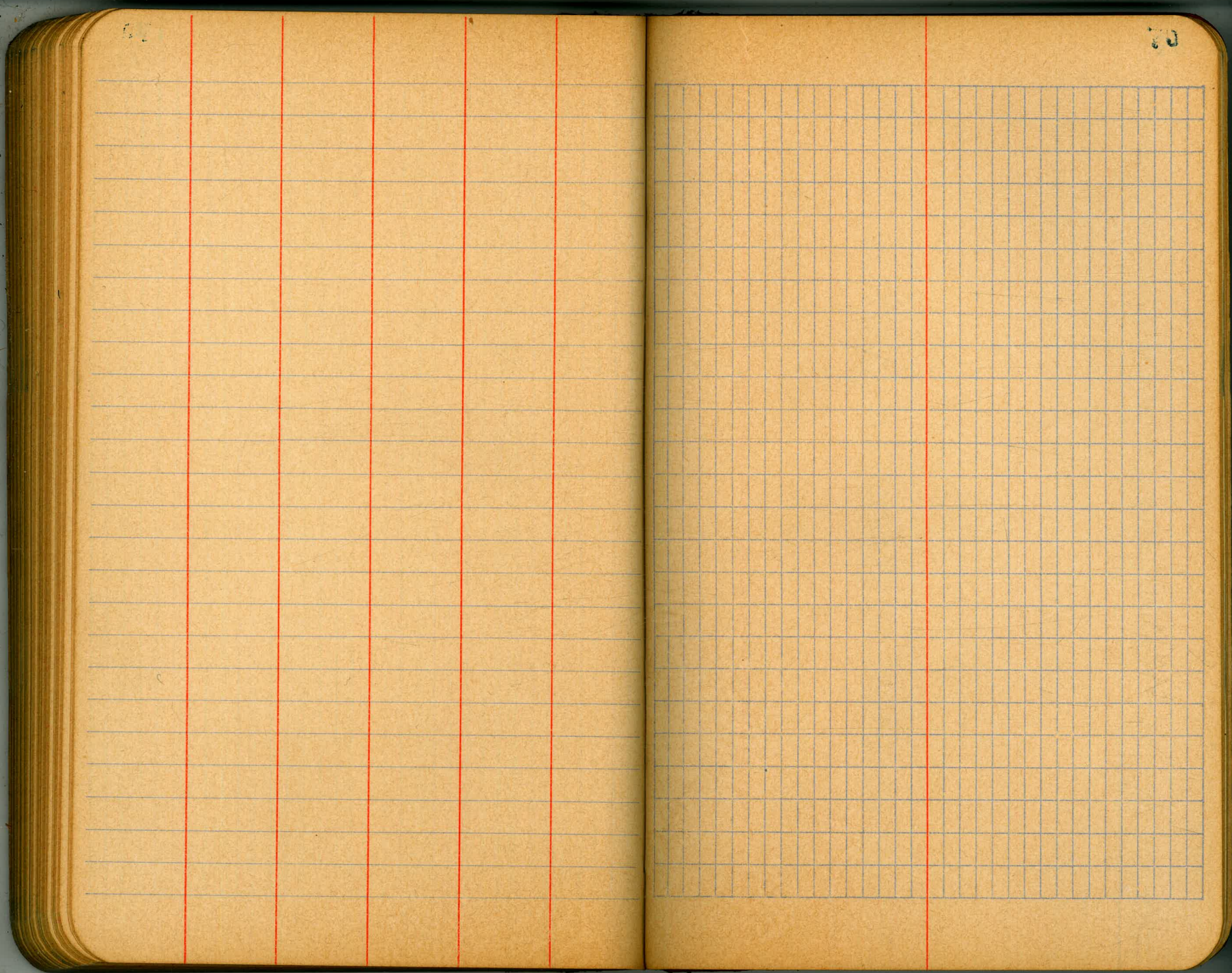


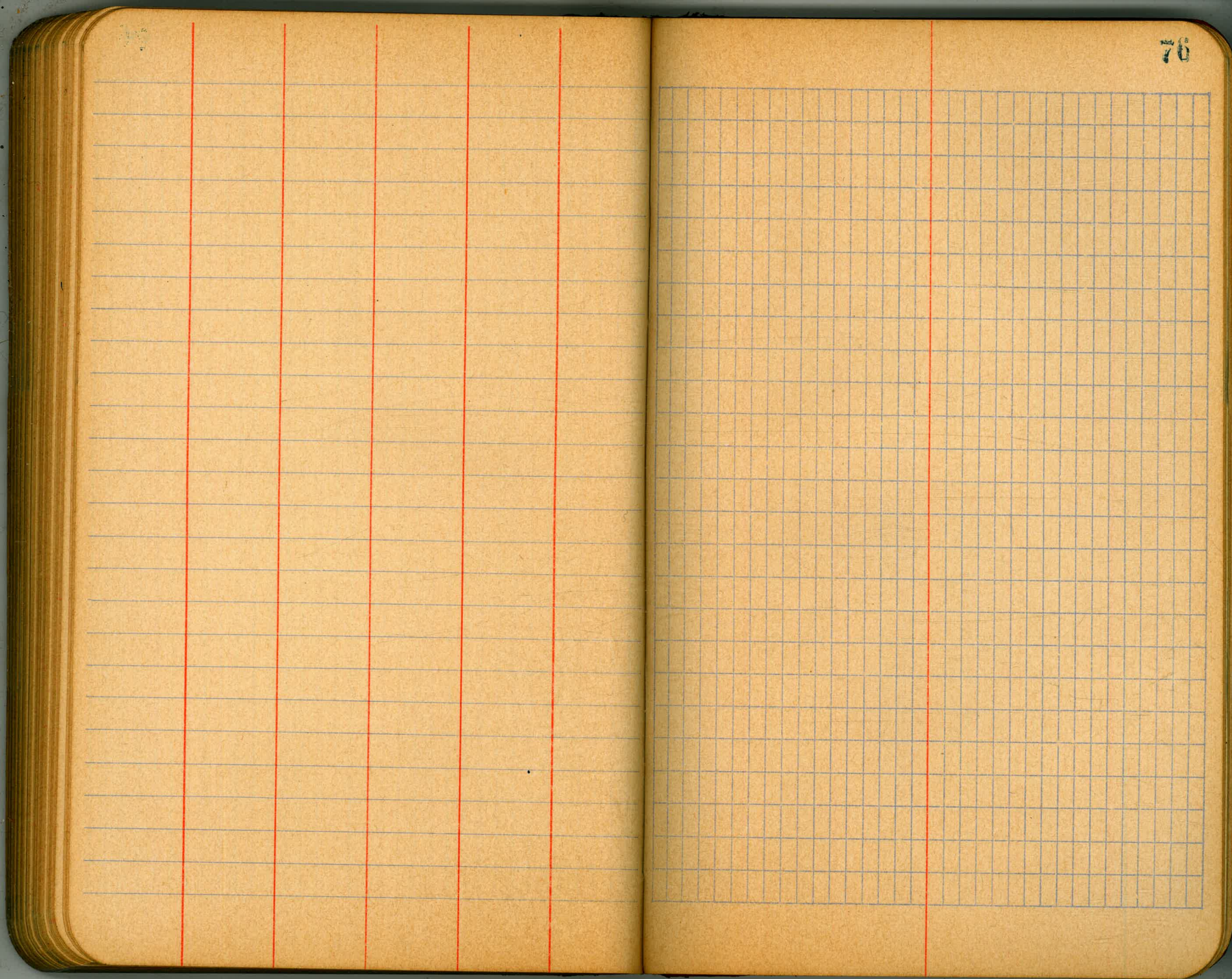


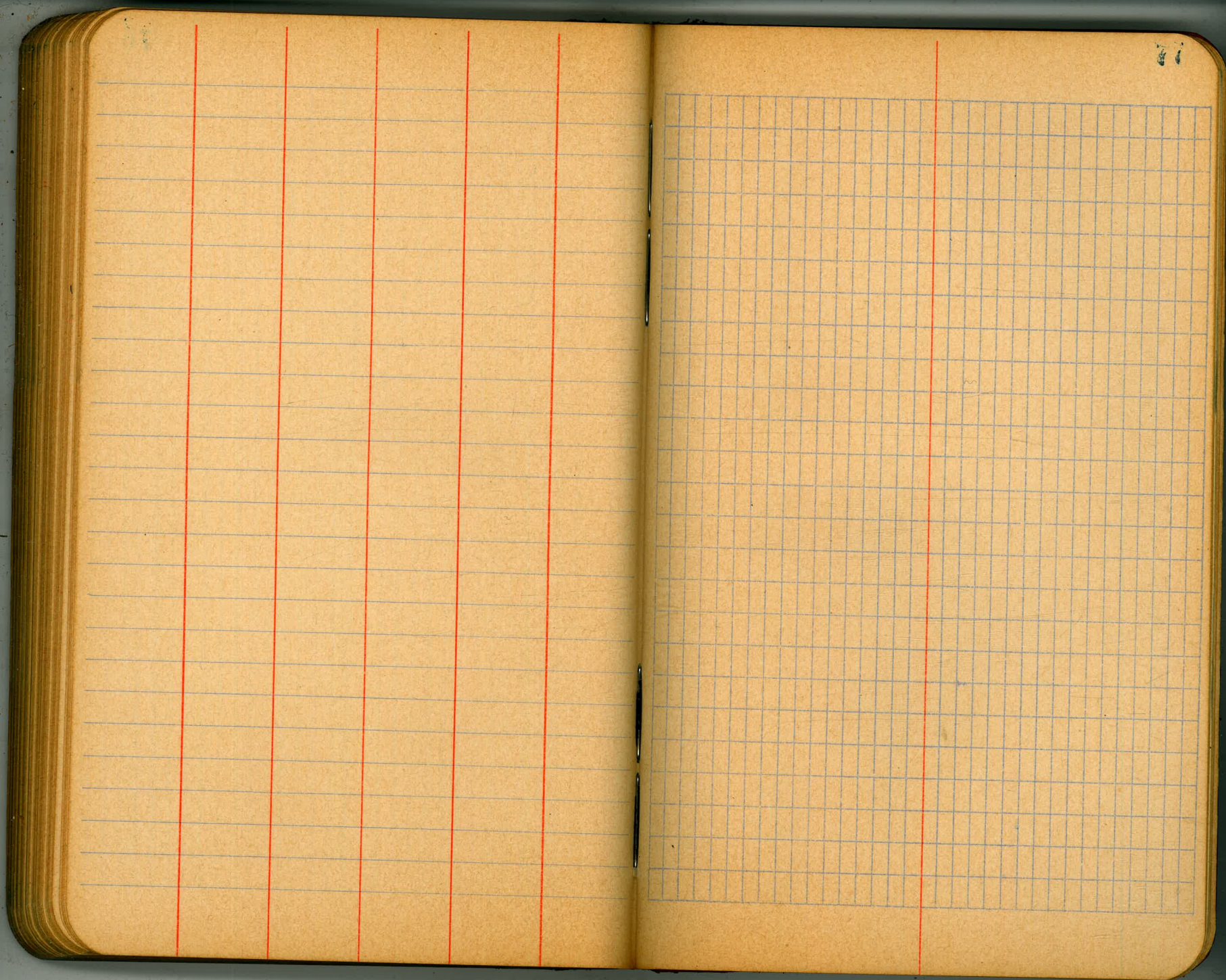


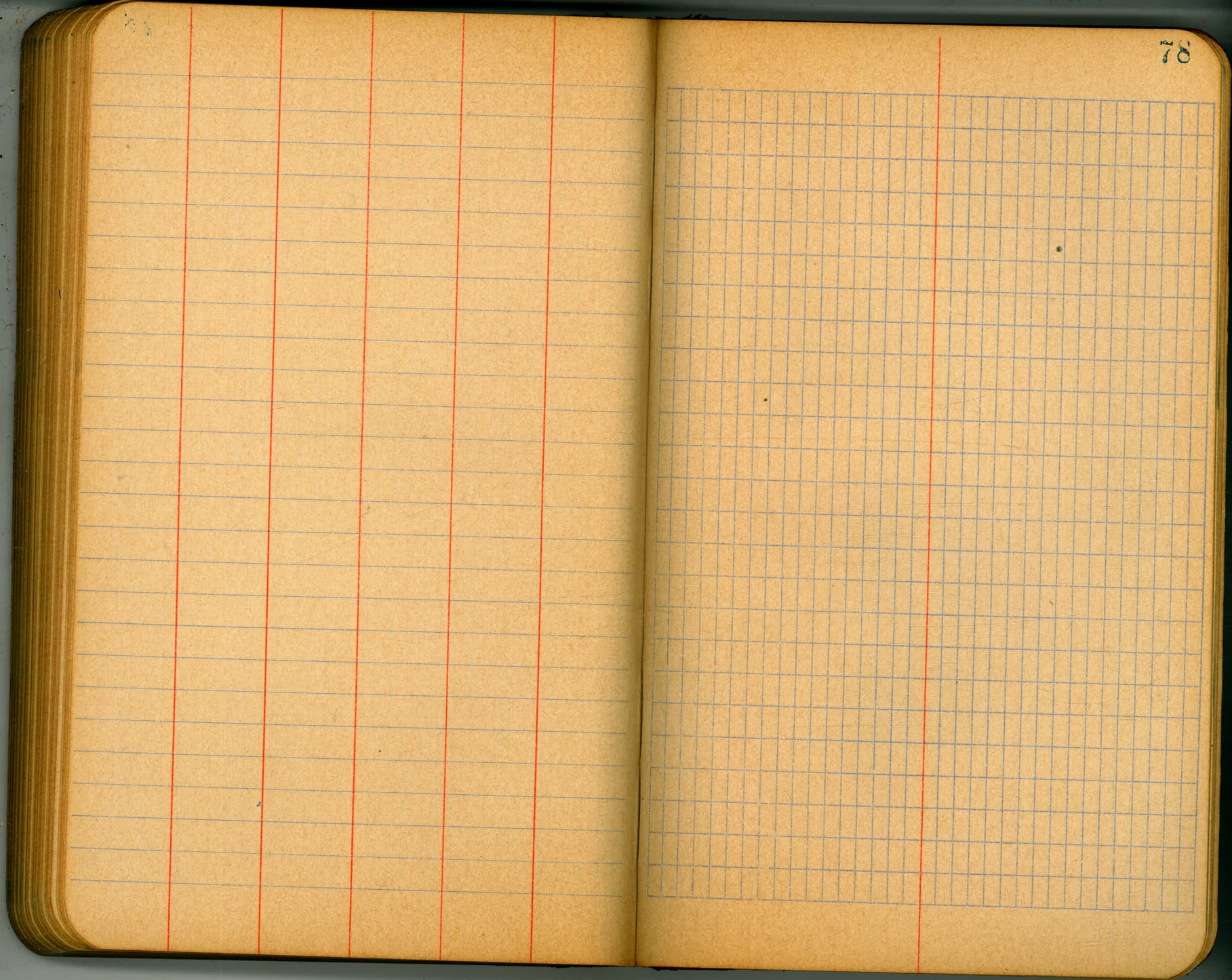


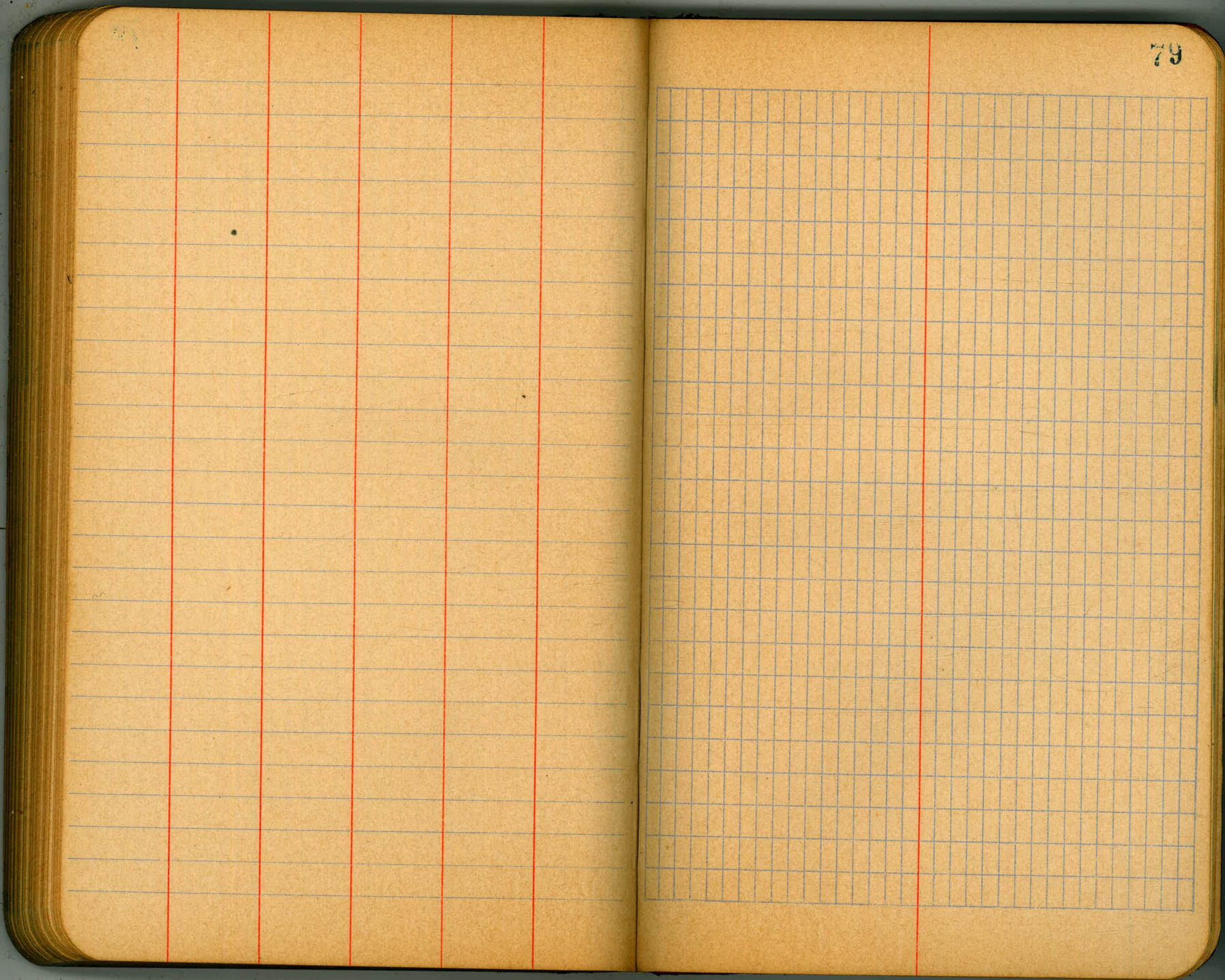


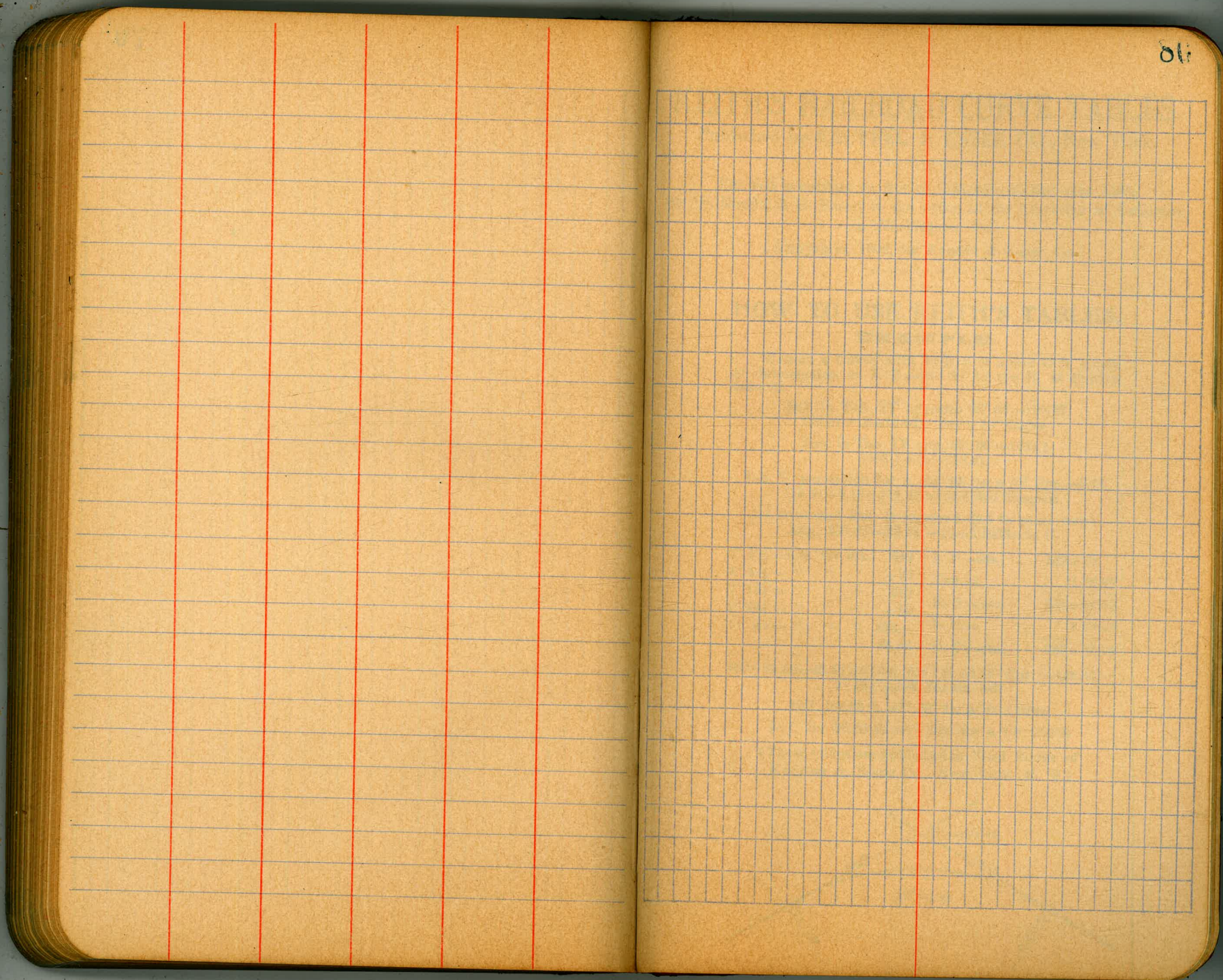












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KEITH'S RAILROAD CURVE TABLES.

Published by KEUFFEL & ESSER CO., New York.

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HOW TO USE KEITH'S TABLES.

EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle
of Intersection or I. P.= $23^{\circ} 20'$ to the R. at Station
 $542+72$.

Ext. in Tab. IV opposite $23^{\circ} 20'$ =120.87
 $120.87+12=132.87$. Say a 10° Curve.

Tan. in Tab. IV opp. $23^{\circ} 20'$ =1183.1
 $1183.1+10=1193.1$.

Tab. V correction for A. $23^{\circ} 20'$ for a 10° Cur.=0.16
 $1193.1+0.16=1193.26$ =corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. $23^{\circ} 20'$ = $23.33^{\circ}+10=33.33^{\circ}$ =L. C.

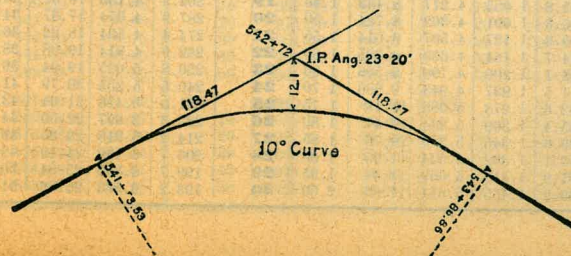
$2^{\circ} 19\frac{1}{2}'$ =def. for sta.	542	I. P.=sta.	$542+72$
$4^{\circ} 49\frac{1}{2}'$ = " " "	+50	Tan.=	<u>118.47</u>
$7^{\circ} 19\frac{1}{2}'$ = " " "	543	B. C.=sta.	$541+53.53$
$9^{\circ} 49\frac{1}{2}'$ = " " "	+50	L. C.=	<u>2.33.33</u>
$11^{\circ} 40'$ = " " "	543+	E. C.=sta.	$543+86.86$
	86.86		

$100-53.53=46.47 \times 3$ (def. for 1 ft. of 10° Cur.)= $139.41'$ =
 $2^{\circ} 19\frac{1}{2}'$ =def. for sta. 542.

Def. for 50 ft.= $2^{\circ} 30'$ for a 10° Curve.

Def. for 36.86 ft.= $1^{\circ} 50\frac{1}{2}'$ for a 10° Curve

(These tables are published in Field Books of
KEUFFEL & ESSER Co., New York, N. Y.)



15.7
27.2
142.4
644.3

2039
370
7839
6413.9

1700
450
264
2608

95.5 .008052
77.5
2608 | 21.000
20.884
12600
13000
2500

.008052
264
3220
45312
16104
2185728

775
413
7903

19696
201.93

75
24
51

10.4
7
11.1

235.55
20.77
72.61
8.98
1.59

8.9

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1 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
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
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.

37.5
32.8
70.0