

7<sup>th</sup> Park to Brooks  
Sewer Level W. of 5<sup>th</sup> St.

Level: see line Vermont from  
1840 to 1850 & Thornton to Alley  
between Cypress.

400

LEVEL

F.B. 191

191

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	2 1/3	21	49	41	95 2/3
2	4 2/3	22	51 1/3	42	98
3	7	23	53 2/3	43	100 1/3
4	9 1/3	24	56	44	102 2/3
5	11 2/3	25	58 1/3	45	105
6	14	26	60 2/3	46	107 1/3
7	16 1/3	27	63	47	109 2/3
8	18 2/3	28	65 1/3	48	112
9	21	29	67 2/3	49	114 1/3
10	23 1/3	30	70	50	116 2/3
11	25 2/3	31	72 1/3	51	119
12	28	32	74 2/3	52	121 1/3
13	30 1/3	33	77	53	123 2/3
14	32 2/3	34	79 1/3	54	126
15	35	35	81 2/3	55	128 1/3
16	37 1/3	36	84	56	130 2/3
17	39 2/3	37	86 1/3	57	133
18	42	38	88 2/3	58	135 1/3
19	44 1/3	39	91	59	137 2/3
20	46 2/3	40	93 1/3	60	140

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City Hall, San Diego, Cal.

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

191

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City Hall, San Diego, Cal.

Handwritten calculations and notes on the right page, including various numbers and fractions, possibly representing survey data or corrections.

292.89  
2099  
26930  
0037.284  
0285  
282.805  
282.354  
281.903  
281.452  
281.001  
280.330  
280.099  
279.648

11.2700  
19 996  
12740  
124952706  
24589315  
100457  
1353  
2255  
10373  
2455  
2455  
12275  
9820  
1107205285.74  
1353  
10015785

279.197 ✓

451

278.746

451

278.295

451

277.844

451

277.393

451

276.942

451

276.491

451

276.040

451

275.589

451

275.138

451

274.687

451

274.236

451

273.785

451

273.334

451

272.883

451

282.44

3.77

286.21

294.25

6.16

288.09 ✓

4.55

292.64

565

451

34

18.04

1353

13334

391.2 | 2,2100 | 565

19560

25400

23472

79280

.00565

62

1130

3390

.035030

284.85

9.40 58.8

294.25

451

294.0

2352

265.188

64.25

451

642.5

32225

25700

2898675

84.25

100.514

33760

8425

421.25

4330450

257

100.514

282.575

561 30840

283.140

561

283.705

561

284.270

561

284.835

293.55

2.66

296.21

11.40

284.81

3.40

288.21

5.14

276.55

5.14

277.064

5.14

277.578

5.14

278.092

5.14

278.606

43

279.04

257

565

85

2825

4820

48025

279.39  
9.58  
288.97

281.8  
4.09  
285.89  
9.37

276.52  
281.23  
10.16

4.88  
288.37  
293.25<sup>v</sup>

286.00  
10.39  
280.78  
10.61

280.33  
11.06

280.55  
10.84

288.37  
3.02  
291.39<sup>v</sup>

281.56  
9.83  
281.45  
9.94

281.23  
10.16

286.00  
10.39  
280.78  
10.61

280.33  
11.06

280.55  
10.84

5.20 1.70  
276.02 278.79<sup>v</sup>  
281.22<sup>v</sup> 280.49<sup>v</sup>  
269.87 268.44  
11.35 +2.05  
269.59 268.72  
11.63 11.77

269.33  
11.89  
269.07 8.68  
12.15 276.70<sup>v</sup>  
268.98 285.38  
12.24  
2.43  
278.79

10.67  
281.67  
292.34<sup>v</sup>  
282  
10.34

213 / 1.004  
882  
48

263.14  
3.66  
266.80<sup>v</sup>

.0049  
5  
.0245

203 / 1.000.492  
812  
1880  
1827  
530



April 25 1905

Childs  
Lewis  
Shaw.

2

Main Sewer on 5 <sup>th</sup> Street			South University ave.		
Sta.	Grade	H. I. Rod	Clev.	cut	
0	M.H.# 1	283.71	<del>292.89</del> 2.9	290.0	6.3
+50		283.49	3.2	289.7	6.2
1		283.26	3.4	289.5	6.2
+50		283.03	3.8	289.1	6.1
2		282.80	4.0	288.9	6.1
+23	M.H.# 38	282.70	4.0	288.9	6.2
+50		282.58	4.2	288.7	6.1
3		282.35	4.4	288.5	6.1
+50		282.13	4.5	288.4	6.3
4		281.90	4.8	288.1	6.2
+50		281.68	5.1	287.8	6.1
+75.45	M.H.# 37	281.56	5.4	287.5	5.9
5		281.45	5.6	287.3	5.9
+50		281.23	6.0	286.9	5.7
6		281.00	6.5	286.4	5.4

April 25 1905

3

Sta.	Grade	H.I.	Rod	Elev.	cut
+50	280.78	<u>292.89</u>	7.0	285.9	5.1
7	280.55		7.3	285.6	5.1
+50	280.33		7.7	285.2	4.9
8	280.10		8.2	284.7	4.6
+00.35 M.H.#36	280.10		8.2	284.7	4.6
+50	279.88		8.5	284.4	4.5
9	279.65		8.9	284.0	4.4
+50	279.43		9.3	283.6	4.2
10	279.20	<u>286.21</u>	3.0	283.2	4.0
+50	278.98		3.4	282.8	3.8
11	278.75		3.8	282.4	3.7
+35 M.H.#35	278.59		4.0	282.2	3.6
+50	278.53		4.1	282.1	3.6
12	278.30		4.4	281.8	3.5
+50	278.07		4.7	281.5	3.4

April 26 1905

Lchilds  
Lewis  
Shaw.

4

Sta.	Grade	H.I.	Rod	Elev.	cut				
13	277.84	<u>286.21</u>	4.9	281.3	3.5				
+50	277.62		5.1	281.1	3.5				
14	277.39		5.3	280.9	3.5	✓			
+50	277.17		5.5	280.7	3.5				
+58.8 MH #34	277.12		5.6	280.6	3.5	✓			
15	276.94		5.7	280.5	3.6				
+50	276.72		6.0	280.2	3.5				
16	276.49		6.3	279.9	3.4				
+50	276.27		6.4	279.8	3.5				
17	276.04		6.8	279.8	3.8				
+50	275.81		6.58	279.68	3.9				
+64.25 MH #33	275.75	<u>285.74</u>	6.0	279.79	4.0				
18	275.22		6.0	279.7	4.1	<u>286.84</u>	7.1	279.7	4.1
+50	275.12		5.8	279.9	4.5		6.9	279.9	4.5
19	275.02		5.5	280.2	5.1		6.3	280.3	5.1



April 26 1905

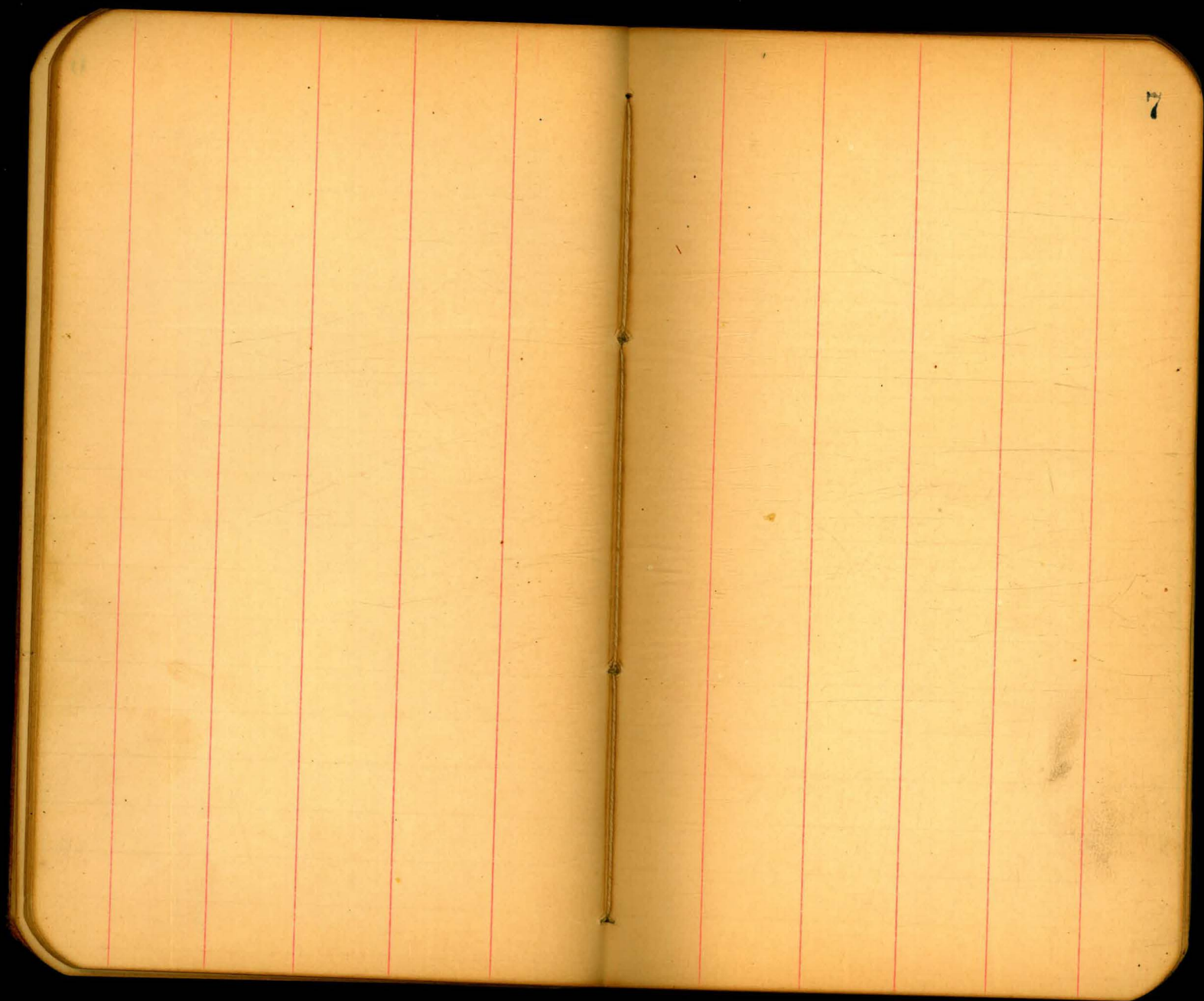
Childs  
Lewis  
Shaw.

5

Sta.	Grade	H.I.	Rod	Elev.	cut	H.I.	Rod	Elev.	cut
+50	274.92	285.74	5.1	280.6	5.7	<u>286.84</u>	6.2	280.6	5.7
20	274.69		4.7	281.0	6.3		5.8	281.0	6.3
+50	274.47		4.3	281.4	6.9		5.5	281.3	6.8
21	274.24		3.9	281.8	7.6		5.1	281.7	7.5
+50	274.02		3.5	282.2	8.2		4.8	282.0	8.0
+98.8 M.H.#32	273.79		3.0	282.7	8.9		4.4	282.4	8.6
22	273.79		3.0	282.7	8.9				
+50	273.56		2.7	283.0	9.4		3.9	282.9	9.4
23	273.33		2.3	283.4	10.1		3.5	283.3	10.0
+50	273.11		1.9	283.8	10.7		3.2	283.6	10.5
24	272.88		1.5	284.2	11.3		2.9	283.9	11.0
+34 M.H.#31	272.73		1.4	284.3	11.6		2.6	284.2	11.5

1.45  
286.48  
 287.93 ✓  
272.88  
 15.05  
 3.92 4.28  
11.13  
 273.11  
 14.82  
 4.28  
10.54  
 273.33  
 14.60  
 4.59  
10.01  
 273.56  
 14.37  
 4.95  
9.42  
 5.88  
282.05  
 4.27  
 286.32 ✓  
274.02  
 12.30  
 273.79  
12.53

274.92  
11.40  
 5.55  
 279.39  
 284.94 ✓  
275.14  
 9.80  
 275.37  
9.57  
 275.59 .072  
 9.35  
 275.73  
29.21  
 25 9.05  
13 38  
 38 9.43  
 274.73  
12.09  
 274.47  
 11.85  
274.69  
 11.63







10

11

11

12



31

13

14

April 28. 1905

Alley line bet. 4<sup>th</sup> & 5<sup>th</sup> from

Sta. Grade H.I. Rod

0 160' So. M.H. #60 276.55 289.45 7.6

+50 276.81 7.7

1 277.06 8.8

+50 277.32 8.9

+60 M.H. #60 277.37 8.5

2 277.58 8.3

+50 277.84 8.2

3 278.09 7.5

+50 278.35 7.1

4 278.61 5.7

+50 278.87 5.8

+84.25 M.H. #59 279.04 5.3

5 279.12 4.1

+50 279.39 4.0

6 279.65 2.9

Childs  
Lewis  
Gunn

15

175' North Brooks to University <sup>ave</sup>

Elev. cut

281.8 5.3

281.7 4.9

280.6 3.5

280.5 3.2

280.9 3.5

281.1 3.5

281.2 3.4

281.9 3.8

282.3 4.0

283.7 5.1

283.6 4.7

284.1 5.1

285.3 6.2

285.4 6.0

286.5 6.9

Penn  
North line Thornton

April 28 1965

16

Sta.	Grade	H. I.	Rod	Elev.	Cut
+50	279.92	289.45	2.9	286.5	6.6
7	280.19		2.7	286.7	6.5
+50	280.45		2.3	287.1	6.7
8	280.72		1.9	287.5	6.8
+15 M.H.# 58	280.80		1.98	287.47	6.7 ✓
+50	280.98	293.95	6.0	287.9	6.9
9	281.25		5.4	288.5	7.3
+50	281.57		6.1	287.8	6.3
10	281.78		5.8	288.1	6.3
+50	282.04		5.5	288.4	6.4
11	282.31		6.4	287.5	5.2
+43.8 M.H.# 57	282.54		5.1	288.8	6.3
+50	282.58		4.8	289.1	6.5
12	282.86		5.0	288.9	6.0
+50	283.14		5.1	288.8	5.7

with line Robinson

April 28, 1905

17

Sta	Grade	H. I.	Rod	Elev.	cut
13	283.42	293.95	4.5	289.4	6.0
+50	283.71		4.2	289.7	6.0
14	283.98		4.7	289.2	5.2
+50	284.27		4.7	289.2	4.9
15	284.55		4.3	289.6	5.1
+35 J.T. #19	284.75		5.1	288.8	4.1

April 29, 1905

VI  
 alley line bet. 4<sup>th</sup> & 6<sup>th</sup> from  
 Sta. Grade H.J. Rod

0	M.H.#61	275.50	<u>288.97</u>	7.4	281.6	6.1
	+50	276.04		6.1	282.9	6.9
1		276.57		6.5	282.5	5.9
	+50	277.11		5.9	283.1	6.0
2		277.65		5.6	283.4	5.8
	+50	278.19		4.12	284.85	6.6
3		278.72	<u>294.25</u>	9.5	284.7	6.0
	+20 M.H.#62	278.93		9.1	285.1	6.2 ✓
	+50	279.26		7.8	286.4	7.1
4		279.80		6.0	288.2	8.4
	+50	280.34		5.2	289.0	8.7
5		280.87		5.7	288.5	7.6
	+50	281.41		6.0	289.2	6.8
6		281.94		6.1	288.1	6.2
	+05 H.J.#28	282.00		6.2	288.0	6.0 ✓

Builds  
 Lewis  
 Gunn

Brooks to Walnut.

Elev. cut

18

April 29, 1905

Childs  
Lewis  
Gunn

19

Alley line bet. 3<sup>rd</sup> & 4<sup>th</sup> from Brookes to Walnut.

Sta.	Grade	H.I.	Rod	Elev.	cut
0	276.70	<u>292.64</u>	11.8	280.8	4.1
+50	277.53		8.9	283.7	6.2
1	278.36		5.2	287.4	9.0
+50	279.18		3.6	289.0	9.8
2	280.01		3.7	288.9	8.9
+50	280.84		4.2	288.4	7.6
3	281.67		4.6	288.0	6.3
+20 M.H. #63	282.00		4.6	288.0	6.0
+50	282.21		5.0	287.6	5.4
4	282.56		5.1	287.5	4.9
+50	282.91		5.5	287.1	4.2
5	283.26		5.6	287.0	3.7
+50	283.61		5.6	287.0	3.4
6	283.96		6.0	286.6	2.6
+05 F.T. #26	284.00		6.1	286.5	2.5

May 9. 1905

alley line bet. 2<sup>nd</sup> & 3<sup>rd</sup> Sta. Grades H.I. <sup>Brooks</sup> To University ave

Sta.	Grade	H.I.	Rel	Elev	cut
0	M.H.#65	267.00	284.19	12.9	271.3 4.3
	+50	267.29		11.1	273.1 5.8
1		267.57		14.3	269.9 2.3
	+50	267.86			
2		268.15		12.6	271.6 3.5
	+50	268.44		7.8	276.4 8.0
3		268.72		5.4	278.79 10.1
	+50	269.01		4.7	279.5 10.5
	+60 M.H.#66	269.07		4.6	279.6 10.5
4		269.30		4.6	279.6 10.3
	+50	269.59		5.4	278.8 9.2
5		269.87		6.3	277.9 8.0
	+50	270.16		7.3	276.9 6.7
6		270.44		7.9	276.3 5.9
	+50	270.73		9.7	274.5 3.8
6 + 60	2. Penn.	270.79			
+89.6	M.H.#67	270.95		9.0	275.2 4.3

leholds  
Lewis  
Gunn



113

May 11 1905

Lehilds  
Lewis  
Crum

21

Sta.	Grade	H.T.	Red	Elev.	cut
7	271.02	<u>284.19</u>	8.2	276.0	5.0 ✓
+50	271.31		8.2	276.02	4.7
8	271.59		8.36	275.83	4.2
+50	271.88	<u>284.47</u>	7.7	276.8	4.9
9	272.17		6.9	277.6	5.4
+50	272.46		6.9	277.6	5.1
10	272.74		7.5	277.0	4.3
+20 M.H.# 68	272.85		7.5	277.0	4.2
+50	273.03		6.5	278.0	5.0
11	273.31		5.1	279.4	6.1
+50	273.60		3.8	280.7	7.1
12	273.89		3.2	281.3	7.4
+50	274.18		4.2	280.3	6.1
13	274.46		5.5	279.0	4.5 ✓
+49 M.H.# 69	274.57		4.3	280.2	5.5 ✓

120

Robinson

May 11 1905

Sta.	Grade	H.I.	Rod	Elev.	cut
14	275.04	284.97	2.6	281.9	6.9
+50	275.33		3.2	281.3	6.0
15	275.61		3.2	281.3	5.7
+50	275.90		2.8	281.7	5.8
16	276.18		2.4	282.1	5.9
+50	276.47		2.2	282.3	5.8
17+40	276.77		2.6	281.9	5.1
+40	277.00	F.T.#22	2.2	282.1	5.1

28.

May 11, 1905

Alley line bet. 2<sup>nd</sup> & 3<sup>rd</sup> from Brooks 160' South

Sta		Grade	H.I.	Rd	Elev	cut
0	M.H.#65	267.00	<u>284.19</u>	12.9	271.3	4.3
	+50	270.75		9.8	274.4	3.7
1		274.50		4.2	280.0	5.5
	+50	278.25		1.0	283.2	5.0
	+60	M.H.#64	279.00	0.9	283.3	4.3

5

Childs  
Lewis  
Crum

23

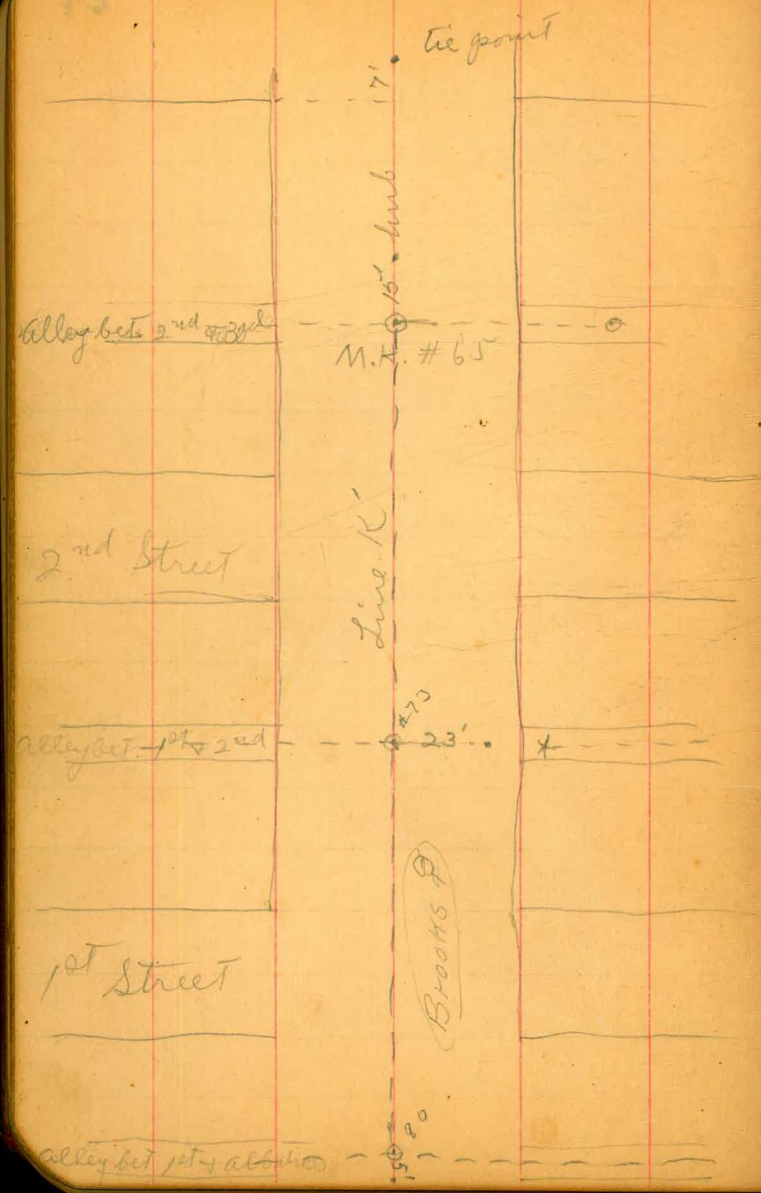
May 13, 1905

Childs  
Lewis  
Gunn

24

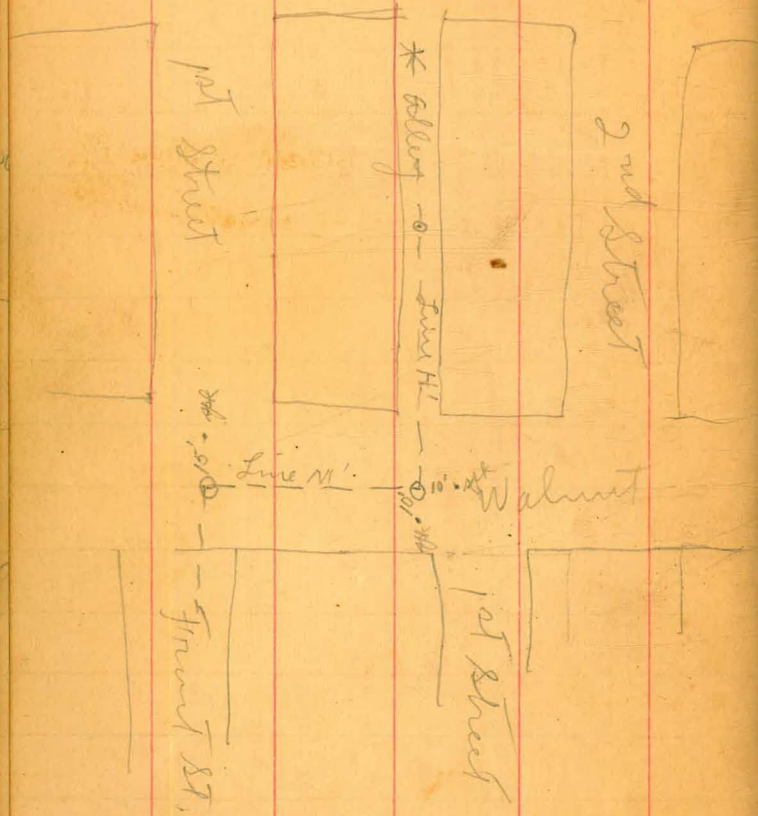
Sta.	Grade	H.I.	Rod	Elev.	cut	
0	M.H. #65	267.00	281.71	10.4	271.3	4.3
+50		264.95		12.86	268.95	4.0 correct new bench
1		262.91	270.84	4.0	266.8	3.9
+50	5	260.85		6.0	264.8	4.0
2		258.81		7.0	263.8	5.0
+50		256.76		8.5	262.3	5.5
3		254.72		10.2	260.6	5.9
+42	M.H. #73	253.00		11.5	259.3	6.3
+50		252.81		11.8	259.08	6.2
4		251.65	261.49	3.8	257.7	6.1
+50		250.49		5.6	255.9	5.4
5		249.33		7.0	254.5	5.2
+50		248.17		8.3	253.2	5.0
6		247.01		9.5	252.0	5.0
+50		245.85		10.4	251.1	5.3
+86.8	M.H. #80	245.00		11.1	250.9	5.3

bet. 2<sup>nd</sup> & 3<sup>rd</sup> to alley bet. 1<sup>st</sup> + Albatross



May 16, 1905

Alley line bet 1<sup>st</sup> + 2<sup>nd</sup> from  
Brookes Street



Childs  
Gum  
Museum

26

Center Walnut To Brookes (Line H')

May 16 1905

27

Line H' bet. 1<sup>st</sup> & 2<sup>nd</sup> Brokers to Walnut.

Sta.	M.H. #	Grade	H.I.	Rod	Elev.	cut
0	M.H. # 75	256.00	<u>261.73</u>	1.6	260.1	4.1
+50		256.24	<u>267.14</u>	6.92	260.22	4.0
1		256.49		7.3	259.8	3.3
+50		256.73		7.1	260.0	3.3
2	b	256.98		6.0	261.1	4.1
+50		257.22		4.8	262.3	5.1
3		257.46		4.9	262.2	4.7
+40	M.H. # 74	257.65		5.0	262.1	4.5
+50		257.70		4.9	262.2	4.5
4		257.95		5.0	262.1	4.2
+50		258.19		4.7	262.4	4.2
5		258.44		5.0	262.1	3.7
+50		258.68		4.2	262.9	4.2
6		258.93		4.0	263.1	4.2
+15	F.J. # 25	259.00		3.9	263.2	4.2

May 16 1905

I<sup>s</sup>

Line M' on Walnut, from  
Sta. Grade H.I. Rod

Sta.	Grade	H.I.	Rod	Elev.	cut
0	M.H.# 75	256.00	<u>261.73</u>	1.6	260.1 4.1
+50		251.20		5.0	256.10 5.5 correct
1		246.41		8.6	253.1 6.7
+50		241.62		10.7	251.0 9.4
+66.85	M.H.# 82	240.00		11.0	250.7 10.7

0		253.0	<u>266.80</u>	7.7	
+50				7.6	
4	Tristie			12.7	
5				7.8	
+50				6.8	
6				5.7	
6+50				5.0	

Builds  
Gunn  
Mason

28

alley bet. 1<sup>st</sup> & 2<sup>nd</sup> to center of front.



95

May 18, 1905

alley line I. bet. 1<sup>st</sup> & 2<sup>nd</sup>

Sta.	Grade	H.I.	Rod	Elev.	cut
6+90 M.H. #72	257.00	<u>268.68</u>	6.18	262.50	5.5
7	257.15		6.2	262.5	5.4
+50	257.90		5.5	263.2	5.3
8	259.66		5.7	263.0	4.3
+50	259.41		3.3	265.4	6.0
9	260.17	<u>278.07</u>	11.94	266.13	6.0
+50	260.92		11.0	267.1	6.2
10	261.68		10.3	267.8	6.1
+20 M.H. #71	261.98		9.6	268.5	6.5
+50	262.43		9.6	268.5	6.1
11	263.19		9.6	268.5	5.3
+50	263.94		8.8	269.3	5.4
12	264.70		8.7	269.4	4.7
+50	265.45		7.7	270.31	4.9
13	266.20		6.3	271.8	5.6
+57.2 M.H. #70	266.98		5.3	272.87	5.8

Cont. from Book 192 - Pg 17

29

Pennsylvania  
from (Thomton) to University

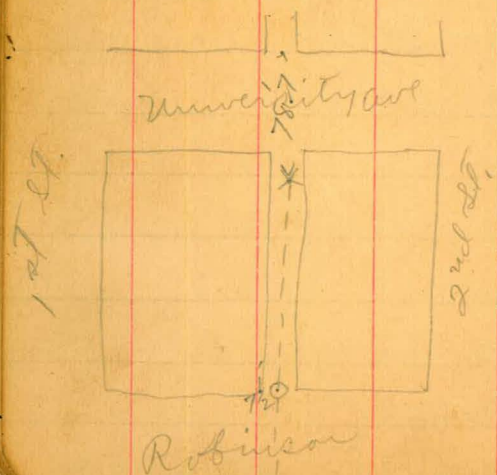
North line Thomton

line Robinson

U.S. May 20 1905

30

Sta.	Grade	H. I.	Rod	Elev.	cut
14	267.71	278.07	3.3	274.8	7.1
+50	268.46		2.8	275.3	6.8
15	269.22		2.0	276.1	6.9
+50	269.97		2.2	275.9	5.9
16	270.73		3.5	274.6	3.9
+50	271.48		2.6	275.5	4.0
17	272.24		0.4	277.7	5.5
+50 F.I. # 23	273.00		1.0	277.1	4.1



787  
636  
151

Cross-sections of 7<sup>th</sup> St.  
from Park line — Brooks St.

	4th + Walnut		
BM	7.11	293.59	286.98
	3.44	285.32	11.71
			281.88
BM	1.5	276.17	
		Park line	
W		1.4	283.9
		1.8	283.5
		2.6	282.7
C		3.2	282.1
		3.8	281.5
		4.2	281.1
E		4.8	280.6
		11' N of Park line	
E		5.2	280.1
		4.6	280.7
		2.6	281.7
C		3.0	282.3
		2.3	283.0

6/8/105 Hatch  
Westmore  
Thomas.

31

285.32

	1.9	283.4
W	1.7	283.9
		23' N of Park line
W	2.3	283.0
	2.8	282.5
	3.3	282.0
C	3.6	281.7
	3.7	281.6
	4.2	281.1
E	5.1	280.2
		33' N of Park line — Block line
E	5.4	279.9
	4.4	280.9
	3.9	281.4
C	3.6	281.7
	3.4	281.9
	2.6	282.7

7<sup>th</sup> St

285.32

W.	2.3	283.0
25' N of Street line		
W	2.3	283.0
	2.3	283.0
	3.5	281.5
C	3.7	281.6
	4.0	281.3
	4.6	280.7
E	5.6	279.7
50' N of Street line		
F	6.0	279.3
	5.5	279.8
	5.1	280.2
C	4.6	280.7
	4.2	281.1
	2.9	282.4
W	2.4	282.9

32

285.32

75' N of Street line		
W	2.7	282.6
	3.1	282.2
	3.7	281.6
C	4.1	281.2
	4.7	280.6
	5.6	279.7
E	6.3	279.0
100' N of Street line		
F	6.0	279.3
	5.6	279.7
	4.9	280.4
C	4.4	280.9
	4.2	281.1
	3.3	282.0
W	2.6	282.7

7<sup>th</sup> St

285.32

125' N of Street line

W	2.6	282.7
	3.0	282.3
	3.7	281.6
C	4.2	281.1
	4.6	280.7
	5.3	280.0
E	5.9	279.4

140' N of Street line - S. line Alley

E	6.3	279.0
	5.4	279.9
	4.8	280.5
C	4.3	281.0
	3.8	281.5
	3.4	281.9
W	2.6	282.7

33

285.32

155' N of Street line - N. line of Alley

W	3.0	282.3
	3.6	281.7
	4.1	281.2
C	4.5	280.8
	4.5	280.8
	5.4	279.9
E	6.0	279.3

25' N of Alley

E	6.8	278.5
	6.0	279.3
	5.3	280.0
C	4.7	280.6
	4.1	281.2
	3.9	281.4
W	3.4	281.9

7th St

283.32

50' N of Alley

W		3.6	281.7	
		4.0	281.3	
		4.7	280.6	
C		5.3	280.0	
		5.9	279.4	
		6.7	278.6	
E		7.5	277.8	
T.P.	392	282.66	6.58	278.74
		75' N of Alley		
E		5.6	277.1	
		4.6	278.1	
		3.3	279.4	
C		2.7	280.0	
		2.2	280.5	
		1.8	280.9	
W		1.5	281.2	

282.66

100' N of alley

W		1.9	280.8
		2.4	280.3
		3.0	279.7
C		3.7	279.0
		4.1	278.6
		5.1	277.6
E		6.0	276.7
		125' N of alley	
E		6.2	276.5
		5.3	277.4
		4.7	278.0
C		4.1	278.6
		3.5	279.2
		2.9	279.8
W		2.3	280.4

7<sup>th</sup> St

272.66

150' N of alley

W	2.9	279.8
	3.5	279.2
	4.2	278.5
C	4.8	277.9
	5.5	277.2
	6.5	276.2
E	7.3	275.4
	7.5	275.2
E	6.8	275.9
	6.3	276.4
C	5.3	277.4
	4.3	278.4
	3.5	279.2
W	3.1	279.6

175' N of alley

35

282.66

200' N of alley

W	3.5	279.2
	4.4	278.3
	5.2	277.5
C	6.0	276.7
	6.8	275.9
	7.5	275.2
E	7.2	274.5
	7.5	274.5
E	8.6	274.1
	8.1	274.6
	7.3	275.4
C	6.2	276.5
	5.7	277.0
	4.9	277.8
W	4.0	278.7

225' N of alley

7<sup>th</sup> St

282.66

250' N of Alley

W	4.1	278.6
	5.0	277.7
	6.0	276.7
C	6.7	276.0
	7.5	275.2
	8.3	274.4
E	9.0	273.7

275' N of Alley

E	8.6	274.1
	8.1	274.6
	7.7	275.0
C	6.8	275.9
	6.0	276.8
	4.9	277.8
W	4.1	278.6

36

282.66

300' N of Alley

W	4.2	278.5
	5.2	277.5
	6.0	276.7
C	6.7	276.0
	7.4	275.3
	8.2	274.5
E	9.0	273.7

325' N of Alley

E	9.2	273.5
	8.4	274.3
	7.2	275.5
C	6.5	276.2
	5.9	276.8
	4.8	277.9
W	4.3	278.4



08  
7<sup>th</sup> St

28266

350 N of Alley

W 3.7 279.0

4.4 278.3

5.7 277.0

C 7.1 275.6

7.8 274.9

8.4 274.3

E 8.9 273.8

375' N of Alley

E 8.4 274.3

7.8 274.9

7.1 275.6

C 6.4 276.3

5.8 276.9

5.0 277.7

W 4.3 278.4

37

282.66

400 N of alley

W 3.7 279.0

4.4 278.3

5.1 277.6

C 5.9 276.8

6.5 276.2

7.5 275.2

E 8.6 274.1

425' N of Alley

E 8.5 274.2

7.8 274.9

7.0 275.7

C 6.3 276.4

5.3 277.4

4.0 278.7

W 3.7 279.3

7th St

28266

450' N of alley

W	3.9	278.8
	4.8	277.9
	5.6	277.1
C	6.2	276.5
	7.1	275.6
	7.9	274.8
E	8.8	273.9

475' N of alley

E	9.6	273.1
	8.8	273.9
	7.4	275.3
C	6.9	275.8
	6.6	276.1
	6.0	276.7
W	5.3	277.4

38

28266

500' N of alley

W	7.8	274.9
	8.2	274.5
	8.9	273.8
C	9.6	273.1
	9.9	272.8
	10.3	272.4
E	10.8	271.9

T.P. 1.73 273.00 11.39 271.27

525' N of alley

E	3.6	269.4
	3.6	269.4
	3.3	269.7
C	2.8	270.2
	2.4	270.6
	2.2	270.8
W	1.8	271.2

7<sup>th</sup> St

27300

550' N of alley

W

7.0 266.0

6.7 266.3

6.3 266.7

6.8 266.2

6.9 266.1

7.3 265.7

7.9 265.6

Brown of center  
slope about 1 1/2 - 1

C

III

Elevation of Sewer on 5<sup>th</sup> St. done by Stabler,

40.

So line of University to Center of Walnut.

50 x 6.25 x 1.67

50 x 6.2 x 1.67

50 x 6.15 x 1.67

50 x 6.1 x 1.67

23 x 6.15 x 1.67

M.H.

27 x 6.15 x 1.67

50 x 6.1 x

50 x 6.2 x

50 x 6.25 x

50 x 6.15 x

25.5 x 6.0 x

M.H.

24.5 x 5.9 x 1.67

50 x 5.8 "

50 x 5.55 "

50 x 5.25 "

50 x 5.1 "

50 x 5.0 "

50 x 4.75 "

M.H. 4.6 x

50 x 4.55 x 1.67

50 x 4.3 x "

50 x 4.1 x "

50 x 3.9 x "

50 x 3.75 x "

35 x 3.65 x "

\* 35 M.H. 3.6 x

10 x 3.6 x 1.67

50 x 3.55 x "

50 x 3.45 x "

Cross-section of 7th St (66)

Sd University to Banks

	476'	28830	28354	Bm. Bk at edge of
				Wk
				bl
Wk			5.1	283.2
bl			5.4	282.9
"			5.2	283.1
b			5.1	283.2
"			5.0	283.3
bl			4.8	282.5
El			4.5	283.8
				425' n of Robinson
El			5.0	283.3
bl			5.2	283.1
"			5.2	283.1
b			5.4	282.9
"			5.7	282.6
bl			5.8	282.5
Wk			5.2	283.1

POSTED

#357

28830

7th St

42

400' n of Robinson

			5.5	282.8
			5.9	282.4
			5.9	282.4
			5.9	282.4
			5.8	282.5
			5.5	282.8
			5.1	283.2
				375' n of Robinson
			5.4	282.9
			5.7	282.6
			5.8	282.5
			6.1	282.2
			6.1	282.2
			6.1	282.2
			6.1	282.2

28880

350'

n of Robinson

W2	6.3	282.0
bl	6.4	281.9
y	6.3	282.0
b	6.5	281.8
y	6.2	282.1
bl	6.1	282.2
EL	6.1	282.2

TP	362	285.77	6.5	282.15
----	-----	--------	-----	--------

325'

n of Robinson

EL	3.8	282.0
bl	3.6	282.2
y	3.9	281.9
b	3.9	281.9
y	4.2	281.6
bl	4.3	281.5
W2	4.0	281.8

28577

301'

n of Robinson

W2	4.1	281.7
bl	4.3	281.5
y	4.6	281.2
b	4.2	281.6
y	4.3	281.5
bl	4.2	281.6
EL	4.0	281.8

275'

n of Robinson

EL	4.2	281.6
bl	4.1	281.2
y	4.5	281.3
b	4.6	281.2
y	4.6	281.2
bl	4.6	281.2
W2	4.5	281.3

64

285.77

	250'	n of	Robinson	
nl			47	281.1
bl			44	281.4
"			44	281.4
b			45	281.3
"			45	281.3
bl			42	281.6
EL			42	281.6
	225'	n of	Robinson	
EL			43	281.5
bl			41	281.2
"			48	281.0
b			47	281.1
"			47	281.1
bl			49	280.9
nl			51	280.7

44

285.77702.25

	200'	n of	Robinson	
nl			59	279.9
bl			54	280.4
"			54	280.4
b			53	280.5
"			50	280.8
bl			50	280.8
EL			50	280.8
	175'	n of	Robinson	
EL			57	280.1
bl			53	280.5
"			55	280.3
b			54	280.4
"			64	279.6
bl			58	280.0
nl			55	280.5



28577

	750'	n of	Robinson	
W2			58	280.0
ll			62	279.6
y			66	279.2
b			60	279.8
y			56	280.2
ll			54	280.4
EL			60	279.8
	125'	n of	Robinson	
EL			60	279.8
ll			58	280.0
y			61	279.7
b			65	279.3
y			70	278.8
ll			64	279.4
W2			63	279.5

28577

7th Lt

45

	100'	n of	Robinson	
W2			62	279.5
ll			67	279.1
y			75	278.3
b			75	278.5
y			63	279.5
ll			55	280.5
EL			56	280.2
TP	039		520	280.47
		28026		
	75'	n of	Robinson	
EL			10	280.0
ll			16	279.4
y			20	279.0
b			27	278.3
y			29	278.1
ll			27	278.3
W2			27	278.3

Peak

28096

50' n of Robinson

W2	29	278.1
bl	36	277.4
γ	37	277.6
h	37	277.8
γ	28	278.2
bl	24	278.7
E2	21	278.9

25' n of Robinson

E2	24	278.1
bl	37	277.8
γ	37	277.8
h	38	277.2
γ	37	277.1
bl	35	277.5
W2	37	277.7

28096

70' n of

46

n. side of Robinson (60') Graded

W2	38	277.2
bl	42	276.8
γ	46	276.4
h	42	276.7
γ	40	277.0
bl	42	276.8
E2	40	277.0

S. side Robinson

E2	54	275.6
bl	53	275.5
γ	52	275.7
h	52	275.8
γ	51	275.9
bl	47	276.3
W2	47	276.6

28096

25' S of Robinson

WR	2.8	278.2
bl	2.3	278.7
"	3.0	278.0
b	3.0	278.0
"	3.6	277.4
bl	2.7	278.3
EL	2.5	277.5

50' N of Robinson

EL	3.8	277.2
bl	6.6	274.4
"	7.4	273.6
b	11.1	269.9
f	6.2	274.8
bl	4.0	277.0
WR	4.1	276.9

28096

7 of 12

47

75' S of Robinson

WR	5.2	275.8
bl	5.9	275.1
"	6.7	274.3
b	8.0	273.0
"	11.3	269.7
b	12.0	269.0
EL	9.7	271.3

100' S of Robinson

EL	13.6	267.4
+6'	16.5	264.5
bl	13.6	267.4
"	9.3	271.7
b	6.3	274.7
f	4.7	276.3
bl	4.5	276.5
WR	4.7	276.3

280.96

	125'	S of	Robinson	
WL			5.7	275.3
bl			5.9	275.1
y			6.1	274.9
b			7.5	273.5
y			10.7	270.3
TP	6.4	<u>277.74</u>	9.66	271.30
bl			9.5	267.9
EL			12.7	264.7
	135'	S of	Robinson	
EL			13.2	264.2
bl			10.7	266.7
y			9.0	268.4
b			5.4	272.0
y			3.7	273.7
bl			2.7	274.7
WL			1.7	275.7

277.74

7.22 24

	150'	S of	Robinson	
WL			2.0	275.4
bl			2.6	274.8
y			3.3	274.1
b			4.3	273.1
y			5.8	271.6
bl			6.8	270.6
EL			10.0	267.4
	175'	S of	Robinson	POSTED
EL			6.3	271.1
bl			5.7	273.7
y			2.5	274.9
b			2.3	275.1
y			2.9	274.5
bl			2.4	274.8
WL			1.8	275.6

48

27744

200' S. of Robinson

W2	1.9	275.5
bl	2.3	275.1
γ	2.4	275.0
b	3.1	274.2
γ	3.5	273.9
bl	3.6	273.8
EL	4.2	273.2

225' S. of Robinson

EL	6.4	271.0
bl	5.4	272.0
γ	4.0	273.4
b	3.2	274.2
γ	2.5	274.9
bl	2.0	275.4
W2	1.3	276.1

27744

7th st

49

250' S. of Robinson

W2	0.8	276.6
bl	1.4	276.0
γ	1.7	275.7
b	2.5	274.9
γ	3.8	273.6
bl	5.3	272.1
EL	6.8	270.5

275' S. of Robinson

EL	3.7	273.7
bl	3.5	273.9
γ	3.4	274.0
b	3.2	274.2
γ	2.8	274.6
bl	2.5	274.8
W2	2.2	275.2

27744

44

30.0' Sof Robinson

W2		0.6	276.8
ll		2.2	275.2
y		2.8	274.6
b		2.2	275.2
y		2.1	275.3
ll		2.6	274.8
El		2.5	274.9

TP 7.20 28176 2.88 274.76

325' Sof Robinson

El		6.2	275.6
ll		6.2	275.6
y		5.8	276.0
b		5.5	276.3
y		5.8	276.0
ll		5.9	275.9
W2		5.9	275.9

28176

7.20

50

350' Sof Robinson

W2		4.5	277.3
ll		4.5	277.3
y		4.2	277.6
b		4.9	276.9
y		5.5	276.3
ll		5.0	276.8
El		4.6	277.2

375' Sof Robinson

El		5.5	276.3
ll		5.7	276.1
y		5.7	276.1
b		5.0	276.8
y		4.5	277.3
ll		4.5	277.3
W2		4.2	277.6

281.76

UC	400	S of	Robinson	
W2			4.0	277.8
bl			4.3	277.5
γ			4.5	277.3
b			4.7	277.1
γ			4.7	277.1
bl			5.7	276.1
ER			6.1	275.7
	425	S of	Robinson	
ER			6.0	275.8
bl			5.7	276.1
γ			5.0	276.8
b			4.8	277.0
γ			4.8	277.0
bl			4.8	277.0
W2			4.7	277.4

281.76

	450	S of	Robinson	
W2			3.9	277.9
bl			4.5	277.3
γ			4.7	277.1
b			5.0	276.8
γ			5.3	276.5
bl			5.9	275.9
ER			6.0	275.8
	475	S of	Robinson	
ER			6.2	275.6
bl			6.2	275.6
γ			5.8	276.0
b			5.4	276.4
γ			4.7	277.1
bl			4.0	277.5
W2			3.8	278.0

51

500' S of Robinson

W2	3.8	278.0
bl	3.9	277.9
4	4.6	277.2
6	4.8	277.0
7	5.5	276.3
bl	5.8	276.0
El	5.8	276.0

525' S of Robinson

El	6.0	275.8
bl	6.1	275.7
7	5.5	276.3
6	4.9	276.9
7	4.8	277.0
bl	4.1	277.7
W2	3.5	278.3

550' S of Robinson

W2	3.3	278.5
bl	4.0	277.8
4	4.8	277.0
6	5.0	276.8
7	5.4	276.4
bl	6.0	275.8
El	6.1	275.7

870 284.65 5.81 275.95

575' S of Robinson

El	9.1	275.5
bl	8.9	275.7
11	8.6	276.0
6	7.8	276.8
4	7.5	277.1
bl	6.6	278.0
W2	5.8	278.8



284.65

600 S = N line of Pennsylvania (65)

WL	5.1	279.5
bl	6.1	278.5
y	7.0	277.6
b	7.7	277.4
y	7.7	276.9
bl	8.0	276.6
EL	8.7	275.9
N bl of Pennsylvania		
EL	8.8	275.8
bl	8.1	276.5
y	7.8	276.8
b	7.3	277.3
y	6.7	277.9
bl	6.3	278.3
WL	5.3	279.3

284.65

702.25

53

N 1/4 of Penn am

WL	5.2	279.4
bl	5.8	278.8
f	6.5	278.1
b	7.0	277.6
y	7.4	277.2
bl	7.8	276.8
EL	8.4	276.2
Center of Penn am		
EL	8.1	276.5
bl	7.5	277.1
y	6.9	277.7
b	6.3	278.3
y	5.8	278.8
bl	5.2	279.4
WL	4.8	279.8

287.65

## S 1/4 of Pen am

WA	50	279.6
U	55	279.1
Y	60	278.6
6	67	277.9
7	72	277.4
U	79	276.7
EL	83	276.3

## S 6th of Pen am

EL	84	276.2
U	80	276.6
Y	74	277.2
6	72	277.4
7	67	277.9
U	61	278.5
WA	46	280.0

287.65

7th of

## S 6th of Pennsylvania

WA	53	279.3
U	60	278.6
Y	64	278.2
6	71	277.5
7	74	277.2
U	77	276.9
EL	83	276.3

## 25' S of Pen am

EL	80	276.6
U	78	276.8
Y	75	277.1
6	67	277.9
7	65	278.1
U	59	278.7
WA	49	279.7

28465

	50'	S of	Per	ave
WL			4.8	279.8
bl			5.5	279.1
"			6.0	278.3
b			6.4	278.2
"			7.2	277.4
bl			7.7	276.9
ER			7.8	276.8
	75'	S of	Per	ave
ER			7.7	277.9
bl			7.5	277.1
"			7.1	277.5
b			6.4	278.2
"			6.2	278.4
bl			5.2	279.11
WL			4.4	280.2

28465

704 25

55

	100'	S of	Per	ave
WL			4.0	280.6
bl			5.0	279.6
"			5.6	279.0
b			5.7	278.9
"			6.4	278.2
bl			7.2	277.4
ER			7.6	277.0
	125'	S of	Per	ave
ER			7.6	277.0
bl			7.3	277.3
"			6.8	277.8
b			6.1	278.5
bl			5.6	279.0
bl			5.2	279.4
WL			3.7	280.9
TP	193		463	280.0

281.35

	150'	S of	Per	an
W2			1.4	280.6
ll			2.3	279.9
y			2.6	279.4
b			2.9	279.1
y			3.6	278.4
bl			4.4	277.6
EL			4.8	277.2
	175'	S of	Per	an
EL			4.8	277.2
bl			4.4	277.6
y			2.8	278.2
b			2.0	278.7
y			2.0	279.0
bl			2.7	279.5
W2			2.1	279.9

	200'	S of	Per	an
W2			2.9	279.1
bl			3.5	278.5
y			3.4	278.6
b			3.7	278.3
y			4.1	277.9
ll			4.5	277.5
EL			4.6	277.4
	225'	S of	Per	an
EL			4.8	277.2
ll			4.8	277.2
y			4.5	277.5
b			4.3	277.7
y			4.5	277.5
ll			4.5	277.5
W2			4.0	278.0

281.95-

	250	Sub	Pen	am
WL			4.7	277.3
bl			5.2	276.8
7			5.2	276.8
6			5.4	276.6
7			5.7	276.3
bl			5.8	276.2
82			5.7	276.3
	275	Sub	Pen	
82			6.3	275.7
bl			6.1	275.9
7			6.0	276.0
6			5.8	276.2
7			5.7	276.3
bl			5.5	276.5
WL			5.1	276.9

281.95-

7.82 28

	300	Sub	Pen	am
WL			5.4	276.6
bl			6.0	276.0
7			5.8	276.2
6			6.0	276.0
7			6.1	275.9
bl			6.2	275.8
82			6.4	275.6
	325	Sub	Pen	am
82			6.7	275.3
bl			6.4	275.6
7			6.7	275.3
6			6.6	275.4
7			6.4	275.6
bl			6.1	275.9
WL			5.8	276.2

		<u>281.95</u>		
	350'	S of	Per	am
W2			6.6	275.4
bl			7.0	275.0
γ			7.0	275.0
l			7.0	275.0
γ			7.2	274.8
bl			7.4	274.6
EL			7.6	274.4
	375'	S of	Per	am
EL			9.5	272.5
bl			8.7	273.3
γ			8.2	273.8
l			7.8	274.2
γ			7.7	274.3
bl			7.5	274.5
W2			7.0	275.0
TP	118	<u>274.68</u>	8.5	273.0

		<u>274.68</u>		<u>742.25</u>	58
	400'	S of	Per	am	
W2			0.5	274.2	
bl			1.1	273.6	
γ			1.5	273.2	
l			1.5	273.2	
γ			2.0	272.7	
bl			2.4	272.3	
EL			2.9	271.8	
	425'	S of	Per	am	
EL			4.0	270.7	
bl			3.7	271.0	
γ			3.5	271.2	
l			2.8	271.9	
γ			2.4	272.3	
bl			2.0	272.7	
W2			1.5	273.2	

274/68

58	450'	S of	Pen	am
WR			2.7	
bl			2.7	
y			3.4	
l			3.8	
y			4.0	
bl			4.8	
EL			5.6	
	475'	S of	Pen	am
EL			6.9	
bl			6.6	
y			6.2	
l			5.2	
y			5.0	
bl			4.7	
WR			4.6	

274/68

702

59

	500'	S of	Pen	am
WR			11.0	
bl			9.4	
y			10.6	
l			12.6	
y			10.7	
bl			11.2	
EL			11.8	
TP	0.33	262.69	12.50	262.6
	510'	S of	Pen	am
EL			5.5	
bl			4.2	
y			2.6	
l			1.0	
y			0.6	
bl			1.0	
WR			4.8	

26269

	525'	Sub	Per	am
WL			10.0	
ll			9.0	
y			8.5	
b			7.6	
y			8.0	
ll			10.0	
EL			9.3	
TP	0.47	<u>250.71</u>	12.45	250.34
	\$50	Sub	Per	am
EL			8.2	
ll			7.7	
y			8.0	
b			7.6	
y			8.8	
ll			9.0	
WL			10.8	
TP	237	<u>271.78</u>	11.3	259.41

241.78

7th st

60

	575'	Sub	Per	am
WL			12.4	
ll			11.2	
y			10.0	
b			10.0	
y			10.0	
ll			9.6	
EL			10.6	
TP	0.87	<u>231.28</u>	11.37	250.91
	600'	Sub	Per	am
			9.0	223
			9.0	
			8.4	
			8.0	223
			8.5	
			8.0	
			7.0	224
TP	849	<u>232.81</u>	6.6	224.21

New and Brooks



25281

N 1/4 of Brackets

El	16.2
bl	16.4
y	14.0
b	13.8
y	12.5
bl	12.2
W2	10.6

N 1/4 of Brackets

W2	11.8
bl	12.0
y	11.6
b	11.8
y	12.0
bl	13.5
El	14.0

25281

20th at

61

Center of Brackets

El	12.7
bl	11.5
y	9.7
b	8.5
y	8.2
bl	9.0
W2	9.6

S 1/4 of Brackets

W2	5.0
bl	4.4
y	3.8
b	4.0
y	5.3
bl	7.7
El	9.4

232.81

S lb of Brooks

E2	55
bl	4.1
"	3.9
b	3.0
"	2.0
bl	1.4
W2	1.3

TP	1226	244.11	0.96	231.85
----	------	--------	------	--------

S lb of Brooks

W2	8.7	235.4
bl	9.5	
"	10.4	
b	10.0	
"	10.2	
bl	10.3	
E2	11.4	232.7

219.59

15' S of Brooks

E2	10.2
bl	8.5
"	7.5
b	6.9
"	6.0
bl	5.2
W2	5.4

25' S of Brooks

W2	0.8
bl	1.3
"	1.4
b	1.2
"	0.8
bl	0.2
E2	3.0

TP	12.70	256.08	0.73	243.38
----	-------	--------	------	--------

25608

50

50' S of Brooks

EL			3.0
bl			2.7
y			2.5
b			2.7
y			2.0
bl			3.0
W2	<del>1.14</del>		2.2

TP	1.14	26690	182	25426
----	------	-------	-----	-------

TP	7.95	27339	0.96	26544
----	------	-------	------	-------

75' S of Brooks

W2			8.0
bl			8.0
y			7.4
b			7.2
y			7.6
bl			8.2
EL			8.2

63

P.T.	7 <sup>th</sup> N of Penna.		274.77
P.T.	Penna E of 6 <sup>th</sup> St.		280.00
B.M.	6 <sup>th</sup> + Penna. NW. cor.	B Plug	
+	-	H.I.	286.86
240		289.26	286.86
	10.30		278.96
2.93		281.89	
	6.81		275.08
	6.65		275.24
	3.26	290.12	286.86
	5.21		284.91
	6.46		283.66
	7.53		282.59
T.P.	3.53	7.76	285.89 282.36
		4.64	281.25

Elv Gutter 225' S of Penna.  
T.J. N of Penna on 7<sup>th</sup>

Alley 200' S of Penna. P.L.  
225' S " " " "  
250' " " " "

50' E of alley line opp. 200' S of Penna.

B.M. Maryland & Monroe

S.E. cor. Hd sph pole.

9

344.96.

B.M. curb S.E. Cor. Maryland & Monroe.

+ -

1.88

3.06

11.1

Alley bet New Jersey & Maryland.

65

Elev 2' alley 175' S. of P.L. Monroe.

Elev 9' rd. 25' W of N.J. and 175' S of Monroe.

99

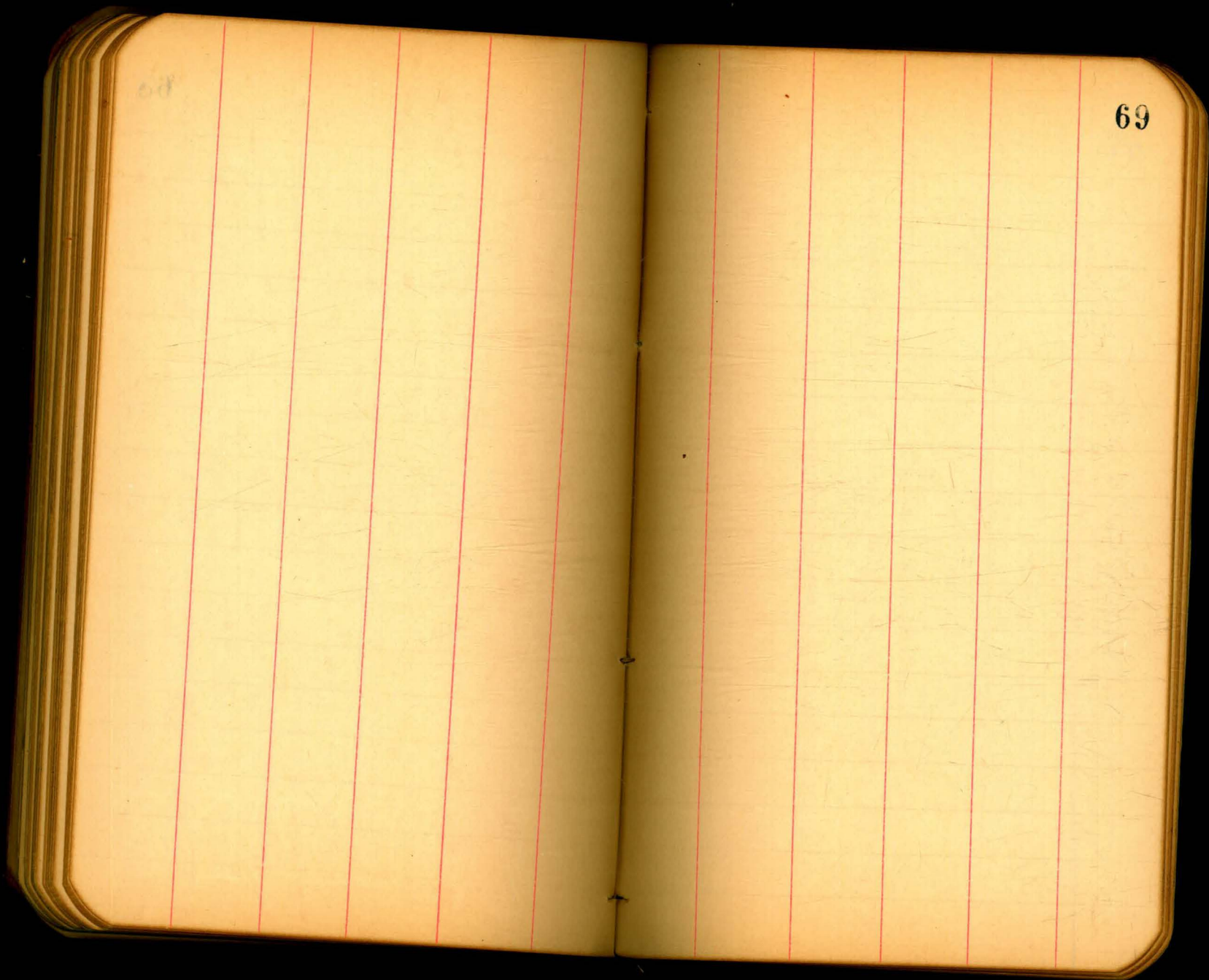
99

66

67

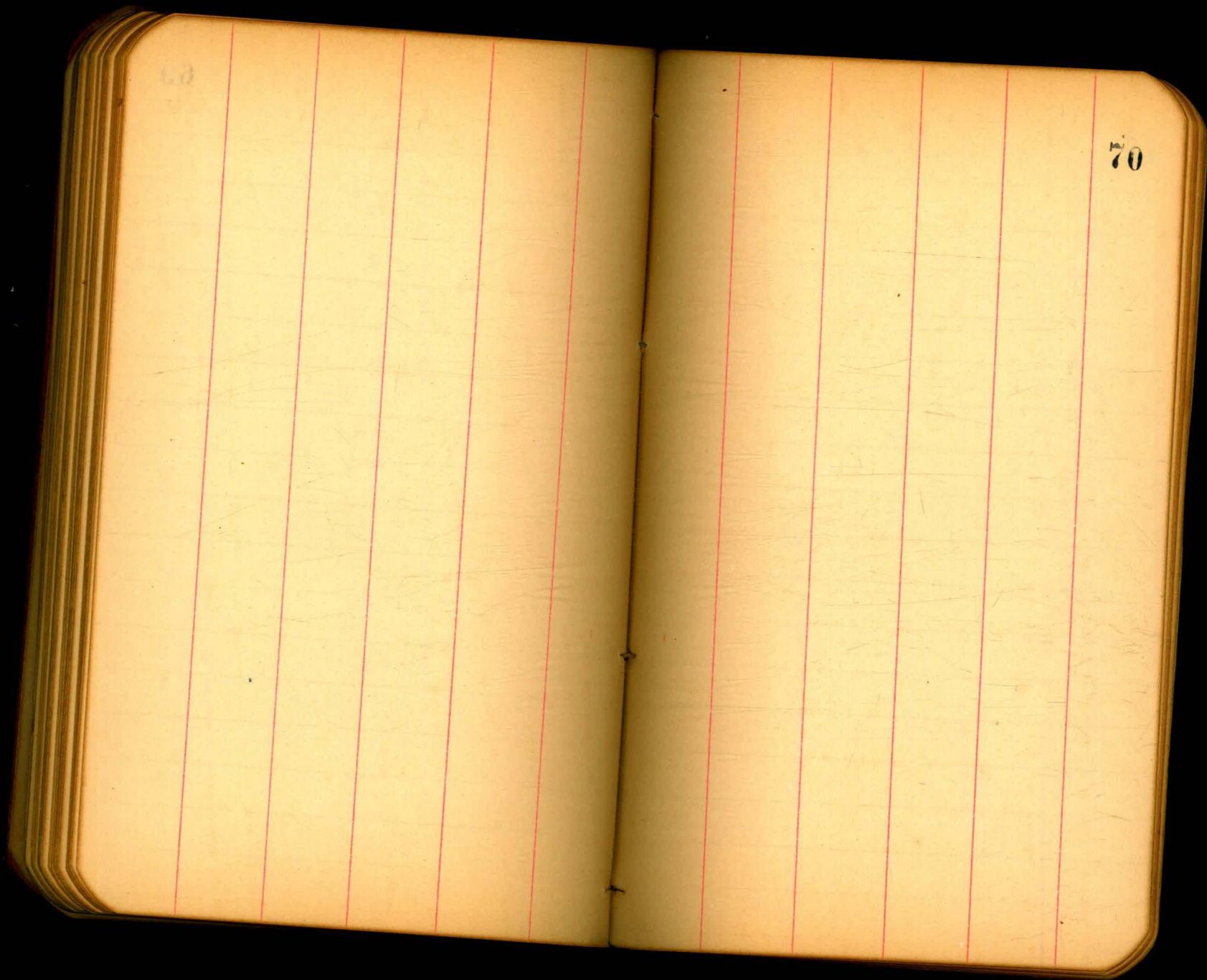
68

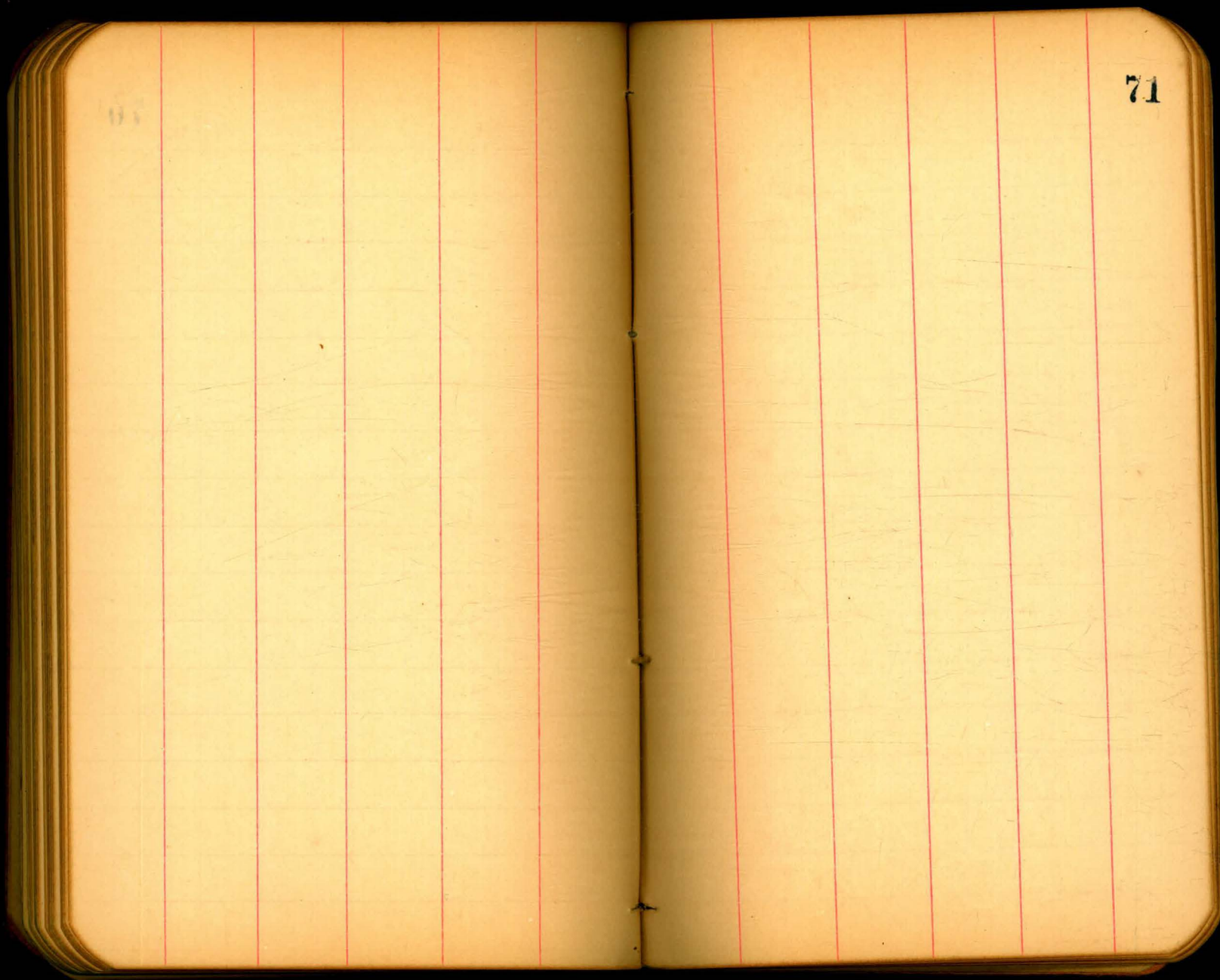




68

69





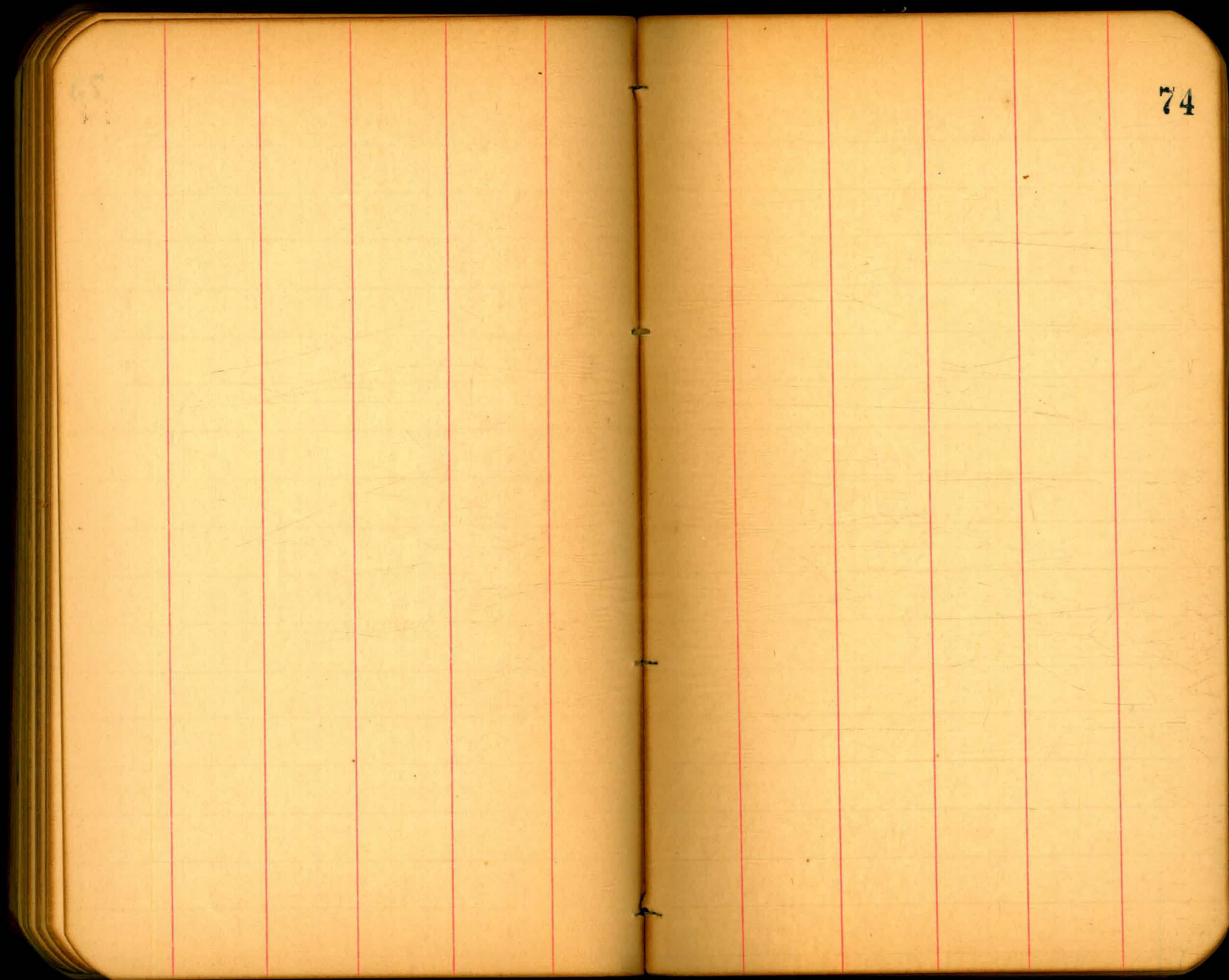
71

68

72

57

73

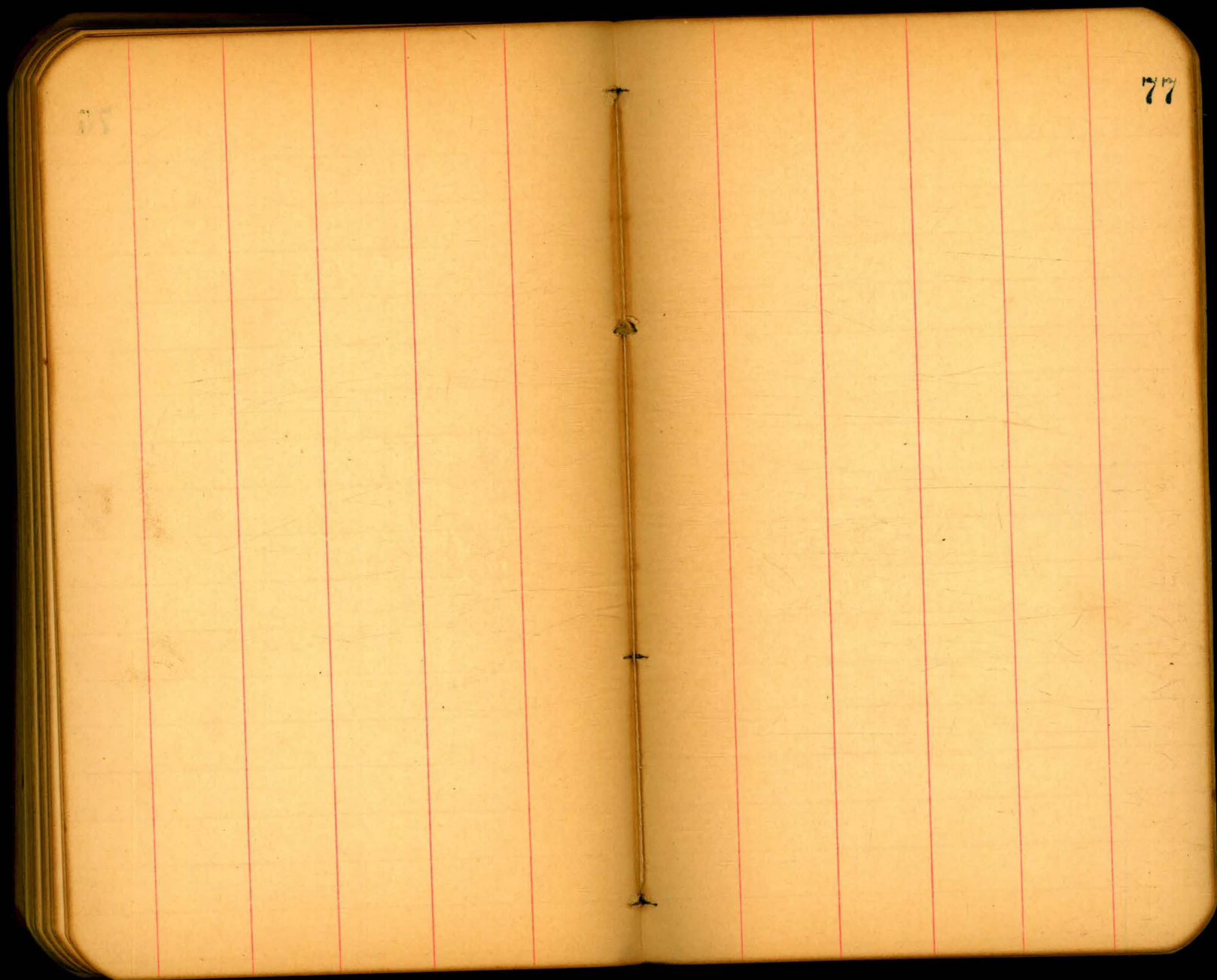


74

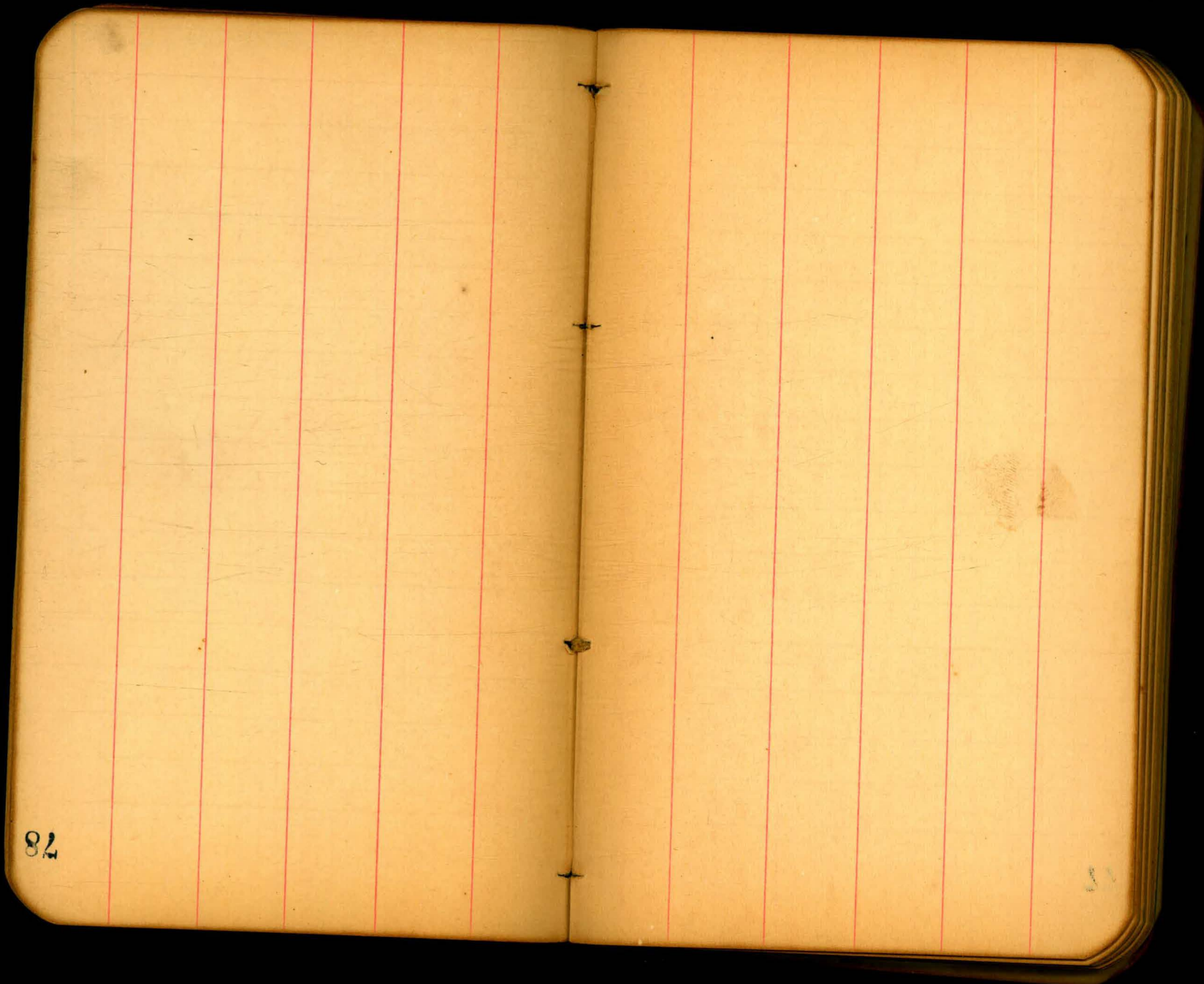
75

76





77



78

51

April 27 1905

Preliminary Sewer line South  
of alley between Robinson  
of alley bet. Thornton  
300' east of east line

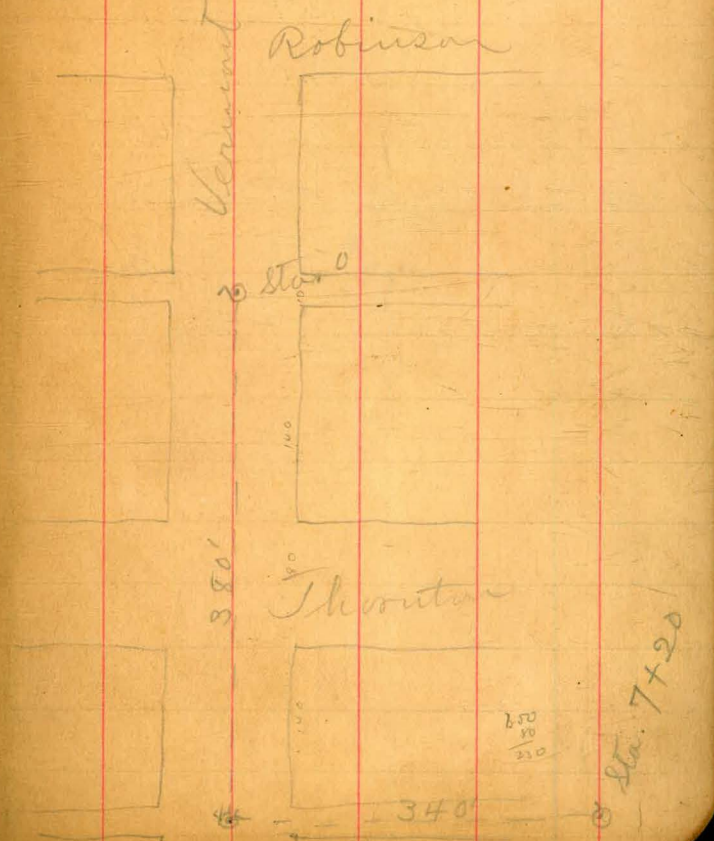
Sta.		N.I.	Rod	Elev.
0	Center of alley	288.21	4.6	283.6
	+50		4.3	283.9
1			4.3	283.9
	+50		4.5	283.7
2			5.7	282.5
	+50		6.9	281.3
3			5.8	282.4
	+50		5.2	283.0
	+80 center alley		5.3	282.9
4			5.4	282.8
	+50		4.6	283.6
5			4.0	284.2

Note - These Levels are 1 foot low.

Childs  
Lewers  
Shaw

79

on Vermont from center  
of Thornton to center  
of Cypress and east  
of Vermont Street.



April 27 1905

Sta	N.I.	Rod.	Elev.
+50	<u>288.21</u>	3.5	284.7
6		2.9	285.3
+50		2.5	285.7
7		2.0	286.2
+20		1.5	286.7
+50	<u>292.84</u>	4.6	288.2
8		4.9	287.9
+50		6.1	286.7

80

5th Street

	University ave	290.32	N.E. cor. New Phosphor
	St. Robinson	288.37	N.W. " " " "
	+ Cross place	285.65	N.E. " " Elec. pole
6	Thomson	282.44	S.E. " " " "
	+ Anderson	281.31	N.E. " " " "
7	Brooks	279.39	N.E. " " " "
	+ Walnut	286.48	N.W. N.W. cor top of green part

8  
+

3rd St.

	Brooks	281.05	S.E. cor. nozzle of sign
--	--------	--------	--------------------------

8.53	482
10.65	5.12
<u>9.18</u>	9.94
82	9.05
5.75	-89
279.39	
285.77	3
276.70	28
8.47	
276.02	035
3.67	.2
279.69	080
276.95	199.5
8.74	282.2
	285.5
275.59	275.75
	07
38	286.0
275.21	274.92
1.95	188.9
2.6	8.6
284.5	9.65
280.4	9.25
4.1	10
	283.85
	9.25
276.02	279.2
5.60	4.6
281.62	8.53
273.51	9.05
8.31	

276.02  
3.63  
279.65  
270.16  
9.49

**191**

12.12  
262.80  
274.62

0.52  
276.48  
17.00  
6.6  
253.4  
7.1  
279.2

269.09  
1.7  
270.84  
2.4  
279.2  
2.5  
261.27

2.55  
266.13  
268.68  
275.83  
4.59  
276.02  
3.59  
281.61  
273.03  
8.58  
272.71  
8.87  
272.46  
9.15

13.30  
45  
32  
90  
7.0  
13.5  
13.5  
1.98  
269.25  
11.16  
280.41  
4.39  
276.02  
270.73  
9.68  
270.44  
9.97  
271.02  
9.39  
271.31  
9.10  
271.59  
8.82  
271.88  
8.53

### 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	17.75	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	92.32	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							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		

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