

ma issue

495

F.B.495

IND

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

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
°		°		°		°	
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

Crocker Quality

LEVEL BOOK

495

No. 400



MANUFACTURED BY
A.S. Crocker Co.
SAN FRANCISCO
and
SACRAMENTO

MICROFILMED
FEB 11 1964

331-274 St...

City Engineer's
office
San Diego Cal.

Ms. 100

Run lateral to E. side lot 8
Block 57 and E side lot 4-57

San Diego

City Engineer's
office

San Diego

Secant $45^\circ = 1.41421$
Sine $45^\circ = .70711$
Tangent $45^\circ = 1.00000$

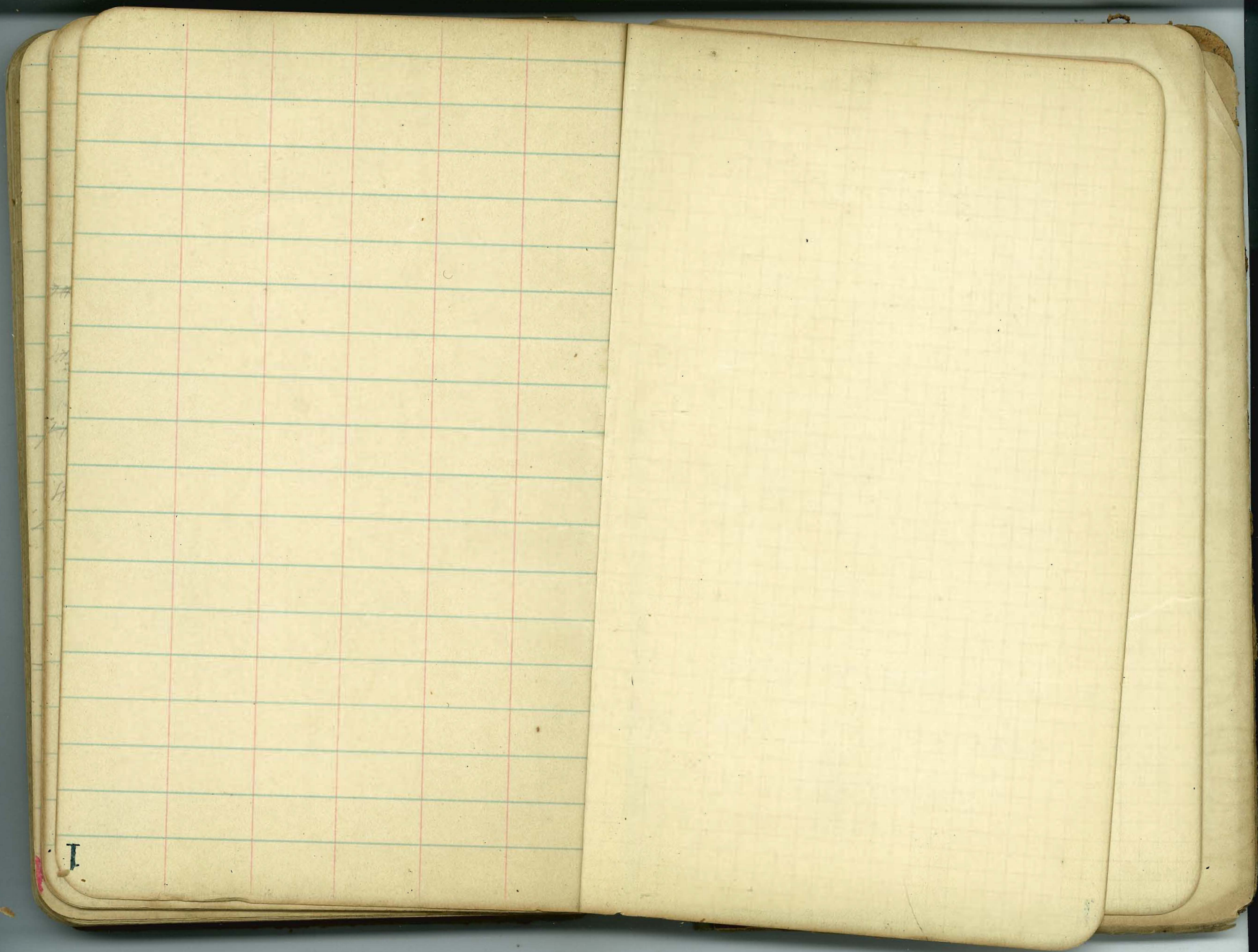
$.70711 \overline{) 1.41421}$ (1838473
 13
424263
141421
1838473

29th and L. NE cor. H. R.R. spl. pole 77.74

30th " J. S. E cor. inside prop line brass
plg. in open. 75.09

32nd & 8th NE cor. H. R.R. ^{RR.} spl. pole 83.22

31st and "I" NE cor. H. R.R. spl. pole 82.76



4114 bet G and H from
 ✓ 1

0+00 M.H.	135.77		121.90
0+25		7.2	128.6
0+50	148.40	12.1	136.3
0+75		5.1	173.3
1+00 M.H.	160.44	11.8	148.6
1+25		9.9	150.5
1+50		7.7	152.7
1+75		5.5	154.9
2+00 M.H.		3.2	157.2
2+25 T.P.		12.1	159.23
2+50	166.07	5.3	160.8
2+75		5.0	161.1
3+00		5.0	161.1
3+25		4.9	161.2
3+50		4.9	161.2
3+75		5.6	162.5
4+00 F.T.		7.1	159.0

29th St West
 T.P. staircase main L. = 12369

116.35	5.6			123.69 = T.P. 2
✓ 123.35	5.3	123.35		12.08
		12.73		135.77 H.1
130.35	6.0	130.35		0.26
✓ 137.35	6.0	137.35		135.51 = T.P.
✓ 144.35	4.3	9.48		12.59
✓ 146.35	4.2	144.35		148.40
		11.63		0.92
148.35	4.4	9.63		147.48 = T.P.
✓ 150.35	4.6	150.35		12.96
✓ 152.35	4.9	5.63		160.44 = H.1
✓ 152.60	6.6	3.63		1.21
152.85	8.0	152.60		159.23
		3.38		6.84
✓ 153.10	8.0	153.10		166.07
153.35	7.8	2.88		
✓ 153.60	7.6	153.60		
153.85	7.4	11.52		
✓ 154.10	6.4	154.10		
✓ 154.25	4.8	11.02		
		154.25		
		10.87		

Box 8

Way bet. "F" and "G" Sts

from 29th St West

0+00	144.57	132.9
0+25	4.7	139.9
0+50	5	156.35
0+75 M.H.	4.3	152.1
1+00 T.P.	1.66	154.69
1+25	167.23	16.7
1+50	7.8	159.4
1+75	6.1	161.7
2+00 T.P.	2.44	164.79
2+25	176.18	7.7
2+50 M.H.	6.0	170.2
2+75	4.8	171.4
3+00	3.6	172.6
3+25	3.2	173.0
3+50	3.3	172.9
3+75	3.8	172.4
4+00 F.T.	5.9	170.3

127.25	5.7
5.91	
✓133.16	6.7
139.07	7.8
✓145.00	7.1
✓147.60	7.1
150.20	6.3
✓152.80	6.6
155.40	5.7
✓158.00	6.8
160.60	7.9
163.20	7.0
✓163.53	7.9
✓163.87	8.7
164.20	8.8
✓164.53	8.4
164.86	7.5
165.20	5.1

(Sta 16) 1181.95	7 T.P.
2.62	
144.57	H.I.
140.95	
129.2	
156.18	H.I.
152.69	
147.38	
147.07	H.I.
0.36	
66.71	
9.70	
176.41	H.I.
131.95	131.95 H.I.
11.93	12.68
143.88	144.63
0.81	
143.82	
11.86	
154.69	155.68 H.I.
5.06	10.6
159.95	154.65
12.56	
167.23	H.I.
2.44	
164.79	164.79
11.00	11.39
175.79	176.18 H.I.
18.26	
163.87	
11.82	
164.53	
11.26	06
165.20	
10.57	

Alley bet "D" and "E" from 29th

0100 M.H.	155.17		
0125	10.5	144.7	
0150	7.7	147.5	
0175	6.1	149.1	
1700	4.2	151.0	
1725 T.P.	0.47	154.70	
1750	7.4	159.7	
1775	1.6	165.5	
2100	7.9	171.3	
2125	4.1	175.1	
2150 T.P.	1.78	177.5	
2175	10.1	180.4	
3100 M.H.	7.2	183.3	
3125	4.9	185.6	
3150	3.8	186.7	
3175	2.8	187.7	
4100	2.1	188.4	

St. West.

136.20			
3.56			
139.76	4.9	139.76	
143.32	4.2	146.88	
146.88	2.2	150.44	
154.00	0.7	154.00	
157.56	2.1	161.12	
161.12	4.4	164.68	
164.68	6.6	168.24	
168.24	6.9	171.80	
171.80	5.9	175.36	
175.36	5.0	178.90	
178.90	4.4	183.90	
183.90	6.3	189.30	
189.30	7.0	190.10	
190.10	7.6	190.50	
190.50	7.9		

Sec 467-61
M.H. No 50

1487.9	T.P.
11.38	
155.17	M.H.
0.47	
154.70	T.P.
12.37	
167.07	
0.70	
166.37	
12.85	
179.22	
1.78	
177.49	
12.98	
190.47	
143.79	T.P.
8.48	
152.27	
1.36	
150.91	T.P.
12.89	
163.80	
1.34	
162.46	T.P.
12.89	
175.35	
1.78	
173.57	
7.00	
180.57	
189.16	
3.13	
192.29	

154

200

5

4425 T.P.	190.47	1.31	189.16	180.90	8.2	180.90	190.47
4450						11.39	1.81
4475	193.58	4.1	189.5	181.30	8.2		189.16
5100		3.4	190.2	181.70	8.5	181.70	4.42
5425 [Not in]		2.8	190.8	182.10	8.7	10.59	193.58
5450				187.50		182.10	4.73
5475		3.8	189.8	187.90	6.9	12.95	184.68
5495		3.9	189.7	183.30	6.4	182.90	192.29
6400		3.4	190.2	183.70	6.5	12.13	189.16
6425		3.5	190.1	184.10	6.0	183.70	6.87
6450 F.T.		3.9	189.7	184.5	5.2	11.33	195.03

ALLEY Det. C & D

from M.H. West.

0+00		156.78	5.1	151.7
0+25	b	166.21	7.4	158.8
0+50		176.31	10.3	166.0
0+75	T.P.		3.22	173.09
1+00		181.99	1.7	180.3
1+25	DE.	185.44	0.65	184.79

145.80	5.9
152.80	6.0
159.80	6.2
166.80	6.3
173.80	6.5
180.80	4.0

173.09	148.79
12.35	12.99
185.44	156.78
	0.05
	156.73
	948
	166.21
	0.91
	165.30
	11.01
	176.31
	3.22
	173.09
	8.90
	181.99

125) 35.000000	.28
250	25
1000	140
1000	56
	7.00

180.80
5.47
166.80
7.39
152.80
13.68

184.79
1.98
186.27
173.09
1.10
174.19
8.19
166.00
0.48
166.48

Alley bet B & C. West from M.H.

0+00	M.H. nt	185.16	172.36	16.60	6.4	175.30	
0+25				^{4.65} 16.60			172.36
0+50	5	15.2	170.0	170.65	50.6		12.40
0+75		7.8	177.4	✓175.30	2.1		185.16
1+00	M.H.	1.4	183.8	179.95	3.9		0.42
1+25		8.5	188.6	✓184.60	4.0	184.60	184.74 TD
1+50		7.0	190.1	186.10	4.0	13.74	12.40
1+75	Not in	3.7	193.4	✓187.60	5.8	187.60	197.14
2+00	T.P			189.10		190.60	1.29
2+25		12.9	195.85	✓190.60	5.2	193.60	195.85
2+50	M.H.?	201.41	3.9	197.5	192.10	4.74	2.47
2+75		2.46	198.95	✓193.60	5.3		198.34
3+00							

5

Alley between A and B Sta. R

0+00	188.68		172.6
0+25		7.4	181.3
0+50	T.P.	1.02	187.66
0+75	200.74	7.4	193.3
1+00	M.H.	3.5	197.2
1+25		1.3	199.4
1+50	207.42	6.3	201.1
1+75		5.3	202.1
2+00		4.6	202.8
2+25		4.1	203.3
2+50		3.20	204.2

8

running west from M.H.

1680	4.6		T.P.	176.70
^{6.5} 174.50	6.8	174.50	176.70	11.98
		9.85	7.65	188.68
181.0	6.7	181.00	184.35	1.02
		3.85		187.66
187.5	5.8			13.08
				200.74
194.0	3.2	194.00		0.38
		95		200.36
194.83	4.6	194.83		7.06
		10.42		207.42
195.66	5.4			187.66
				7.24
196.49	5.6	196.49		194.95
		8.76		95
197.32	5.5	197.32		194.20
		5.93		191.21
198.15	5.2	198.15		205.25
		7.10		
199.0	5.2	199.0		
		6.25		

168	4 + 00	226.50	5.2	221.3	212.66	8.6	$\frac{212.66}{12.79}$	225.45 M.H.
174	4 + 25		4.7	221.8	213.33	8.5	$\frac{213.33}{12.12}$	
181	4 + 50		4.3	222.2	214.00	8.2	$\frac{214.00}{11.45}$	
187	4 + 75		3.8	222.7	214.66	8.0	$\frac{214.66}{10.79}$	219.5
194	5 + 00		3.5	223.0	215.33	7.7		219
194	5 + 25		3.1	223.4	216.00	7.4	$\frac{216.00}{9.45}$	
195	5 + 50		2.8	223.7	216.66	7.0		
196	5 + 75		2.0	224.5	217.33	6.2	$\frac{217.33}{8.12}$	
199	6 + 00 = M.H.		2.7	223.8	218.00	5.8	$\frac{218.00}{9.45}$	

alley Oct B 2 C from 1911

59 N of E 29th St. East

168	0 + 00	171.94	8.0	163.9
174	0 + 25		2.9	169.0
181	0 + 50	182.70	9.1	173.6
187	0 + 75		4.5	178.2
194	1 + 00		0.98	181.72
194	1 + 25	193.83	8.5	185.3
195	1 + 50		5.5	188.3
196	1 + 75		2.5	191.3
197	2 + 00	204.38	9.8	194.6
198	2 + 25		7.5	196.9
19	2 + 50		6.2	198.2
	2 + 75		2.9	201.5
	3 + 00	216.15	11.4	204.7
	3 + 25		9.0	207.1
	3 + 50		6.3	209.8
	3 + 75		4.9	211.2
	4 + 00		4.0	212.1

155.00				
157.36		157.36		
159.00	4.9	159.00		
4.25				
163.25	5.8	163.25		
467.50	6.1	167.50		
		12.87		
171.75	6.5	176.00		
		4.37		
176.00	5.7	181.50		
2.75				
178.75	6.6	187.00		
		7.78		
181.50	6.8	187.00		
		2.28		
184.25	7.1	187.00		
		12.69		
187.00	7.6	199.69		
		169		
189.75	7.2	198.00		
		12.96		
192.50	5.7	210.96		
		1.18		
195.25	6.3	209.78		
		3.64		
198.0	6.7	213.42		
		7.19		
198.25	8.9	198.00		
		1.69		
198.50	11.3	198.25		
		7.27		
198.75	12.5	198.50		
		12.46		
199.00	13.1	198.75		
		14.67		
		199.00		
		14.92		

49
52
67
1.70
159.88
171.94
0.74
171.20 T.P.
11.50
182.70
0.98
181.72
12.11
193.83
0.62
193.21 T.P.
11.17
204.38
0.55
203.83
12.92
216.15
159.33
12.00
171.53
1.76
169.77 T.P.
10.60
180.37
0.78
179.59 T.P.
9.69
189.28

4+25	216.15	3.3	212.8	✓199.25	13.6	199.25	209.78
4+50		2.9	213.2	✓199.50	13.7	14.61	4.08
4+75		2.2	213.9	✓199.75	14.2	199.50	213.86
5+00		1.9	214.2	200.00	14.2	14.36	1.04
5+25		1.8	214.3	200.25	14.1	199.75	214.82
5+50		3.1	213.0	200.50	12.5	16.1	3.30
5+75		8.4	207.8	200.75	7.1	15.87	216.12
6+00	F.T.	12.3	203.8	201.0	2.8	15.62	8.38
						200.00	207.74
						200.25	1.76
						200.50	209.454
						200.75	
						201.0	
						8.70	
						8.45	

See 479-53 for extension

Page 12

"28" St Line

Main Line

Pole 13

0+00	M.H. & H St. (68)	112.65	9.9	102.8
0+25			8.4	104.3
0+50			7.6	105.1
0+75			7.3	106.7
1+00			7.2	108.5
1+25			6.7	106.0
1+50			6.2	106.5
1+75			5.6	107.1
2+00			5.0	107.7
2+25			3.4	109.3
2+50			2.3	110.4
2+75			1.9	110.8
3+00	T.P.		0.68	111.97
3+25		124.37	12.2	112.2
3+50			12.3	112.1
3+75			13.2	111.2
3+90.3	M.H. G.St. (67) = 0+00		12.6	111.8

8" bench

97.90	4.9
98.55	5.7
99.19	5.9
99.84	5.6
100.49	5.0
101.15	4.9
101.80	4.7
102.45	4.7
103.10	4.6
103.74	5.6
104.39	6.0
105.04	5.8
105.68	6.3
106.33	5.9
106.98	5.1
107.62	3.6
108.00	3.8

13.11	108.87
	3.78
	112.65
	0.68
	111.9710
	12.90
	124.3741
	108.87
	0.99
	109.3641

111.97
2.08
114.05
6.26
104.39
10.84
111.97
3.80
115.27

108.00
7.27

8+50	148.11	7.3	140.8
8+75		4.4	143.7
9+00 T.P.		1.31	146.80
9+25	154.93	5.0	149.9
9+50		5.3	149.6
9+60.2 M.H. (56) valley bet C.H. & D.J.			
9+75		5.6	149.3
10+00		5.9	149.0
10+25		6.8	148.1
10+50		8.9	146.0
10+75		10.7	144.2
11+00		12.1	142.8
11+25		12.2	142.7
11+50		8.6	146.3
11+75		5.4	149.5
12+00 T.P.		2.25	152.68
12+25	163.25	7.0	156.2
12+50		4.6	158.6

✓131.70	9.6	131.20
✓133.20	10.5	133.20
✓135.20	11.6	135.20
✓137.20	12.7	137.20
✓139.20	10.4	139.20
✓140.0	9.8	140.0
✓140.15	9.1	140.15
✓140.40	8.6	140.40
✓140.65	7.4	140.65
140.90	5.1	140.90
✓141.15	3.0	141.15
141.40	1.4	141.40
✓141.65	1.0	141.65
141.90	4.4	141.90
✓142.15	7.3	142.15
✓142.40	10.3	142.40
✓142.65	13.5	142.65
✓142.90	15.7	142.90

9602
351
1340.7

15

148.11
1.31
146.80
5.13
154.93
2.25
152.68
10.57
163.25
146.80
3.23
150.03
146.80
1.31
148.11
9.90
138.21
3.69
141.90
146.80
5.67
152.47
152.68
8.30
160.98

12+75	163.25	2.6	160.6	143.15	17.4	$\frac{143.15}{18.65}$	163.25
13+00		2.5	160.7	143.40	17.3		$\frac{150.53}{5.08}$
13+25		2.7	160.5	143.65	16.8		155.61
13+40	M.H. (57)			143.80			T.P. 152.68
13+50	galley bed 2.16	3.7	159.5	143.90	15.6		$\frac{9.12}{41.761.80}$
13+75		4.4	158.5	144.15	14.6	$\frac{144.15}{17.63}$	150.58
14+00		5.9	157.3	144.40	13.9	$\frac{144.40}{17.40}$	$\frac{4.64}{41.755.17}$
14+25		9.2	154.0	144.65	9.3	$\frac{144.65}{17.15}$	$\frac{150.58}{1.123}$
14+50	T.P.	12.72	150.53	144.90	5.6	$\frac{144.90}{10.27}$	143.80
14+75	155.61	9.6	146.0	145.15	0.8		17.9c
15+00		9.6	146.0	145.40	0.6	$\frac{145.40}{9.77}$	
15+25		7.4	148.2	145.65	2.5		
15+50		6.0	149.6	145.90	3.7	$\frac{145.90}{9.27}$	
15+75		5.8	149.8	146.15	3.6		
16+00		6.1	149.5	146.40	3.1	$\frac{146.40}{8.77}$	
16+25		6.8	148.8	146.65	2.1	$\frac{146.65}{8.52}$	
16+50		10.8	144.8	146.90	F.2.1		
16+75		7.3	148.3	147.15	1.1	$\frac{147.15}{8.02}$	

1720.2
38.0
2100.2

1720.2
960.0
760.0

17+00	155.61	4.8	150.8
17+20			
17+25		2.11	153.50
17+50	165.36	8.8	156.6
17+75		5.3	160.1
18+00		3.8	161.6
18+25		3.0	162.4
18+50		2.6	162.8
18+75		2.1	163.3
19+00		2.6	162.8
19+25		1.10	164.26
19+50	176.89	9.7	167.2
19+75		7.1	169.8
20+00		4.1	172.8
20+25		1.13	175.76
20+50	188.09	9.9	178.2
20+75		7.8	180.3
21+00		5.5	182.6

M.H. (30)
T.P.
Galley put C+D

M.H. (58)
put B+C

147.40	3.4	147.40	147.15	155.61
✓147.60		4.67	6.92	2.11
148.00	5.5	148.00	6.47	153.50
✓150.00	6.6	150.00	7.42	11.86
152.00	8.1	12.44	7.42	165.36
✓154.00	7.6	154.00	7.67	1.10
156.00	6.4	8.44	146.40	164.26
✓158.00	4.8	158.00	7.67	1.263
160.00	3.3	7.016		176.89
✓162.00	0.8	6.16		1.13
164.00	0.3			175.76
✓166.00	1.2	2.16		12.33
168.00	1.8			184.09
✓170.00	2.8	4.12		0.57
172.00	3.8			153.50
✓174.00	4.2	12.12		11.82
176.00	4.3			165.32
✓178.00	4.6	8.12		12.00

T.P. 175.76

M.H. 175.407

T.P. 164.26

M.H. 168.16

T.P. 175.76

M.H. 186.12

21+25	188.09		179.84		
21+50 T.P.	0.57	187.52	✓181.68	5.8	181.68
✓ 21+75	199.39	10.8	188.6	✓183.52	5.1
22+00		8.6	190.8	✓185.36	5.4
✓ 22+25		6.9	192.5	✓187.20	5.3
22+50		4.1	195.3	✓189.04	6.3
19 22+75	204.50	7.1	197.4	190.88	6.5
✓ 22+92 MH = ♀ B.S.	7.0	197.5	✓192.0	5.5	192.00
✓ 23+00	6.9	197.6	192.22	5.4	192.37
23+50	6.2	198.3	✓193.35	5.0	193.35
24+00	5.1	199.4	✓194.48	4.9	194.48
24+50	4.0	200.5	✓195.61	4.9	195.61
25+00	2.5	202.0	✓196.74	5.3	196.74
25+50	1.4	203.1	197.87	5.2	197.87
26+00 F.T.	0.3	204.2	✓199.00	5.2	199.00

188.09
0.57
T.P. 187.52
11.87
199.39
2.44
196.95 = BM
7.35
204.50
HI. 186.12
T.P. 187.52
10.98
HI. 198.50
25.2
201.02
BM. 196.95
7.42
HI. 204.37

Hoitt St. from Main 10' Line N. to "H" St.

0400 - M.H.	106.64			890			93.65 = T.P.
0425		12.9	93.7	✓ 930	0.7	93.00	12.99
0450		5.3	101.3	✓ 970	1.7	12.10	106.64 H.I.
0475 T.P.		1.76	104.88	✓ 1010	4.3	97.00	1.76
1400	118.05	8.3	109.8	✓ 1050	3.9	8.10	104.88
1425		3.5	114.6	✓ 1090	4.8	101.00	13.17
1450 T.P.		0.07	117.98	✓ 1130	5.6	4.10	118.05
1475	130.80	8.2	122.6	✓ 1170	5.0	109.00	0.07
2100		5.3	125.5	✓ 1210	5.6	8.43	117.98
2125 T.P.		0.65	130.15	✓ 1250	4.5	117.00	12.82
2450	142.77	8.6	134.2	✓ 1290	5.1	11.61	130.15
2475		5.2	137.6	✓ 1330	4.6	125.00	12.62
3100 M.H.		2.4	140.4	✓ 1370	3.4	13.00	142.77
3125 T.P.		0.04	142.73	✓ 1390	4.8	137.00	0.04
3150	150.44	6.0	144.4	✓ 13882	5.6	139.73	142.73
3475		4.8	145.6	✓ 139.73	5.9	9.30	10.68
4100		4.1	146.3	✓ 140.64	5.7	141.00	128.61
4110 FT		3.8	146.6	✓ 1410	5.6	8.03	114.50

12 Alley bet Hand Ist from 28th St. West.

109.67
 18.74
 98.93
 94.40
 4.53

21

0+00	M.H. 28 th St	110.80	7.7	103.1	93.90	9.2		
0+25			10.5	100.3	94.15	6.2	94.40	
0+50			11.9	98.9	94.40	4.5	15.27	
0+75			12.5	98.3	94.65	3.7	94.90	
1+00			7.4	103.4	94.90	8.5	14.77	
1+10	M.H.		5.5	105.3	95.00	10.3	95.00	
1+25			2.9	108.4	98.60	9.8	3.6	
1+50		122.35	9.4	112.9	104.60	8.3	6.00	
2+25			4.4	117.9	104.60	7.3	104.60	
2+50		135.05	10.9	124.2	116.60	7.6	7.06	
2+75			6.7	128.3	122.60	5.7	116.60	
2+35	M.H.		3.5	131.6	125.00	5.2	12.65	
2+50					126.38			
2+75	T.P.		0.37	134.68	128.68	6.0	126.38	
3+00	F.T.	139.82	3.4	126.4	131.00	5.4	8.87	
							128.68	
							6.57	
							131.00	
							4.25	

BM, 108.87
 1.93
 110.80
 2.39
 T.P. 110.41
 11.94
 122.35
 0.02
 122.33
 12.72
 135.05
 0.37
 134.68
 5.14
 139.82
 108.87
 0.80
 109.67
 1.52
 108.35
 9.31
 117.66
 1.06
 116.60
 1.34.68
 0.57
 135.25

✓ *Allegbet E and F St. from*
LINA ENTRE CALLES F.F desde

Main Line East,
28th St

038 22

0+00 - M.H. 56	159.46	9.6	149.8	140.0	9.8			146.80 = T.P. 12.66
0+25		1.7	159.7	144.0	13.3			159.46 0.02
✓ 0+50	171.70	6.9	164.8	148.0	16.8			159.44 T.P. 12.26
10+75		2.9	168.8	152.0	16.8			171.70 0.83
✓ 1+00	180.49	8.7	171.8	156.0	15.8			170.77 9.62
1+25		5.6	174.9	✓ 160.0	14.9	17	B.M.	180.49
1+50		4.0	176.5	✓ 164.0	12.5			184.69 0.38
✓ 1+75		2.9	177.6	✓ 168.0	9.6	160.00		185.07 9.26
✓ 2+00 M.H. 55		3.7	176.8	✓ 172.0	4.8	17.12		175.82 4.34
12+25 T.P.		4.7	175.82	✓ 172.33	3.5	164.00		180.16 3.63
2+50		5.0	175.5	172.668	2.8	168.00		176.53 T.P. 0.59
2+75		4.4	176.1	✓ 173.002	3.1	12.16		177.12 8.22
3+00		3.2	177.3	173.336	4.0	172.00		172.33 7.83
3+25		2.0	178.5	✓ 173.670	4.8	173.00		173.00 7.16
3+50		1.9	178.6	174.004	4.6	173.67		173.67 6.49
3+75				174.34				
3+84 F.T.	186.22	11.80	174.42	✓ 174.42	0.0	174.42		174.42 5.74

4 + 25	T.P.	203.90	0.46	203.44
4 + 50		213.34	8.7	204.6
4 + 75	M.H. (32)		7.4	205.9
5 + 00			6.2	207.1
5 + 25			4.8	208.5
5 + 50			4.4	208.9
5 + 75			4.6	208.7
6 + 00			5.3	208.0
6 + 25	M.H. T.P. F.T.	5.88		207.46

196.50	6.9	196.50
		8.18
198.25	6.4	
200.00	5.9	200.00
		4.68
200.33	6.8	
200.66	7.8	200.66
		11.66
201.00	7.9	
201.33	7.4	201.33
		10.99
201.66	6.3	
202.00	5.5	202.00
		10.32

203.90
0.46
203.44
9.90
213.34
5.88
207.46
5.53
212.99
11.82
201.17
201.125
204.68
203.44
8.88
212.32

22 ✓

Alley Between C & D sts.

0 + 25	16590	7.1	158.3
0 + 50 T.P.		0.84	165.06
0 + 75	17683	5.2	171.1
1 + 00 M.H.	18679	9.4	177.4
1 + 25		5.1	181.7
1 + 50		3.2	183.6
1 + 75		1.2	185.6
2 + 00 M.H.	197.62	10.3	187.3
2 + 25		7.4	190.2
2 + 50		5.5	192.1
2 + 75		4.0	193.6
3 + 00		2.5	195.1
3 + 25		2.1	195.5
3 + 50		1.7	195.9
3 + 75		1.4	196.2
4 + 00 T.P.		1.20	196.42
4 + 25	201.02	4.1	196.9

from main line East to 29th St.

147.6								
153.85	4.5			165.06 T.P.	158.00			
✓ 160.10	5.0	160.10		7.83	111.95			
		12.79		172.89 M.	165.40			
166.35	4.8			0.29	0.34			
✓ 172.6	4.8	172.60		177.60	165.06			
		8.39		13.18 T.P.	11.27			
175.1	6.6			185.98				
177.6	6.0			0.17	176.33			
✓ 180.1	5.5	180.1		185.67	0.79			
		3.68		8.70	175.54			
✓ 182.6	4.7	182.60		4194.31 T.P.	11.25			
		11.71			186.79			
183.02	7.2	185.54		196.42 T.P.	0.64			
✓ 183.44	8.7	183.44		2.35	186.15			
✓ 183.86	9.7	183.86		41.792.80	11.47			
✓ 184.28	10.8	184.28			197.62			
✓ 184.70	10.8	184.70			1.20			
✓ 185.12	10.8	185.12		196.42 T.P.	196.42			
✓ 185.54	10.7	185.54		3.2	4.60			
✓ 185.96	10.4	185.96		199.94	201.02			
✓ 186.38	10.5	186.38						

4+50	201.02	4.1	196.9
4+75		4.1	196.9
5+00		4.4	196.6
5+25		5.2	195.8
5+50		5.9	195.1
5+75	F.T.	6.7	194.3
6+00			

18638			
✓ 186.80	10.1	186.90	199.94
		13.14	
✓ 187.22	9.7	187.22	
✓ 187.64	9.0	12.72	
✓ 188.06	7.7	187.64	
		12.30	
✓ 188.48	6.6	✓ 188.06	
✓ 188.90	5.4	11.88	
		188.48	
		11.46	
		148.90	
		11.04	

Branch line up Canon

28th St Line

0+00		10.6	153.2	148.8	4.4	
0+25	163.78	8.1	155.7	148.99	6.7	
0+50		5.5	158.3	149.19	9.1	
0+75		6.2	157.6	149.38	8.2	
1+00		6.2	157.6	149.57	8.0	
1+25		3.6	160.2	149.76	10.4	
1+50		0.59	163.19	149.96	13.4	
1+75	170.84	6.8	164.0	150.16	13.8	
2+00		5.9	164.9	150.35	14.6	
2+25		5.7	165.1	150.55	14.6	
2+50		5.4	165.4	150.74	14.7	
2+75		5.1	165.7	150.93	14.8	
3+00		6.2	164.6	151.13	13.5	
3+25		4.9	165.9	151.32	14.6	
3+50		5.3	165.5	151.51	14.0	
3+75	T.P. 1	9.92	160.92	151.71	9.2	
3+88.7	M.H. [Grd. Fl.] (2)	11.8	159.0	151.8	7.2	
4+00		171.72	12.8	158.9	152.16	6.7

Vard see page 37

T.P. 153.50
 10.28
 H.H. 163.78
 0.59
 163.19
 7.65
 170.84
 9.92
 3+75 T.P. 160.92
 10.80
 171.72

345.18
 232.55
 112.63
 379.42
 259.67
 199.36
 1350.03

4+25		13.1	138.6	✓152.91	5.7	152.91
4+50	171.72	12.3	159.4	153.66	5.7	<u>11.80</u>
4+75		12.3	159.4	✓154.41	5.0	<u>154.41</u>
5700		10.2	161.5	155.16	6.3	<u>9.42</u>
5+25		10.1	161.6	✓155.91	5.7	<u>155.91</u>
5+50		8.8	162.9	✓156.66	6.2	<u>8.22</u>
5+75		6.0	165.7	157.41	8.3	<u>7.47</u>
6+00		3.2	168.5	158.16	10.3	<u>158.16</u>
6+25	T.P.	1.43	170.29	158.91	11.4	<u>73.93</u>
6+50	173.02	5.7	167.3	159.66	7.6	
6+75		9.9	✓163.1	✓160.41	2.7	<u>160.41</u>
7+00		6.8	166.2	161.16	5.0	<u>11.66</u>
7+25		6.6	166.4	✓161.91	4.5	<u>161.91</u>
7+50		7.4	165.6	162.66	2.9	<u>9.56</u>
7+75		6.3	166.7	✓163.41	3.3	<u>163.41</u>
7+86.7	M.H. (11)	4.9	168.1	✓163.80	4.3	<u>8.06</u>
8+00		4.3	168.7	164.32	4.4	<u>7.67</u>

171.72
 1.43
 171.70.29
 2.73
 173.02

H. 164.71

T.P. 170.29
 2.89
 171.18
 9.57
 161.61
 2.52
 H. 164.13

170.29
 1.18
 H. 171.47

170.29
 1.80
 H. 172.09

8+25	173.02	5.3	167.7	✓ 165.32	2.4	$\frac{165.32}{10.50}$	178.02 1.84 171.18 12.64
8+50		5.4	167.6	166.32	1.3	$\frac{167.32}{8.50}$	183.82 0.38
8+75		4.6	168.4	✓ 167.32	1.1		183.44 7.62
9+00 T.P.		1.84	171.18	168.32	3.5		191.06
9+25	183.82	9.1	174.7	✓ 169.32	5.4	$\frac{169.32}{11.94}$	171.18 4.64 175.82
9+50		6.9	176.9	✓ 170.32	6.6	$\frac{170.32}{10.94}$	171.18 1008 1781.26
9+75 T.P.		0.38	183.44	✓ 171.32	12.1	$\frac{171.32}{9.94}$	
10+00	191.06	7.8	183.3	172.32	11.0	$\frac{172.32}{16.35}$	183.44 5.23
10+20.4 M.H.		7.4	183.6	173.13	10.5	$\frac{173.13}{15.54}$	188.67

X N.H. from 28th St West

0+25		117.68	14.4	
0+50			13.8	
0+75			9.2	
1+00	T.P.		0.23	117.45
1+25		129.84	6.8	
1+50	T.P.		0.75	129.09
1+75		141.95	7.5	
2+00	T.P.		0.91	141.04
2+25		153.81	8.3	
2+50			3.3	
2+60	M.H.			
2+75	T.P.		0.51	153.30
3+00		165.49	8.2	
3+25			4.3	
3+50	T.P.		0.23	165.26
3+75		172.92	6.2	
3+90	F.T.			
4+00	F.T.		5.3	

97.90

Not cu

151.00 grade st = 155.6

154.00 grade st = 159.5

30

B.M.	108.87
	8.81
	117.68 H.I.
	0.23
	117.45 T.P.
	12.39
	129.84
	0.75
	129.09
	12.86
	141.95
	0.91
	141.04
	12.77
	153.81
	0.51
	153.30
	12.19
	165.49
	0.23
	165.26
	7.66
	172.92

Alley bet. B & C. St. E. from

M.H. on canon to 28th St.

31

0400	166.66	158.60	151.8	6.8	153.88	160.92
			104		11.85	5.74
0425	10.9	155.8	152.84	3.0		166.66
0450	10.8	155.9	153.88	2.0	155.96	175.76
					9.77	
0475	7.5	159.2	154.92	4.3		164.26
						153.50
1400	3.4	163.3	155.96	7.3		164.26
						14.7
1425 D.E.	0.5	166.2	157.0	9.2		145.73

Alley bet. B & C West from N. H. in canon. to 27th St

0+00 M.H. (20)	178.64		158.60	151.80	9.2	162.80 2.93	165.73	160.92 12.72
0+25		4.8	168.8	✓162.80	6.0		162.50 180.6	173.64 0.29
0+50 M.H.	185.85	7.5	178.3	✓173.8	4.5	173.80	175.62 10.91	178.35 12.50
0+75	196.23	12.8	183.4	✓178.8	4.6	12.73	184.53	185.85 0.62
1+00		6.7	189.5	✓183.8	5.7	183.80 2.73	183.80 12.36	185.23 11.00
1+25		1.87	194.36	188.8	5.6	193.80 3.36	196.16	196.23 1.87
1+50 M.H.	204.90	6.1	198.8	✓193.8	5.0			194.36 10.54
1+75		3.4	201.5	194.47	7.0		203.50 5.07 208.57	204.90 1.40 203.50
2+00 T.P.		1.40	203.50	✓195.13	8.4	195.13 13.44		9.82 213.32
2+25	213.32	8.3	205.0	✓195.80	9.2	195.80 12.77		203.50 8.42
2+50		6.5	206.8	✓196.46	10.3	196.46		H.H. 211.98
2+75		5.1	208.2	✓197.13	11.1	12.11		203.50 8.38
3+00		4.4	208.9	197.80	11.1	197.13 197.80 14.18		211.88
3+25		4.3	209.0	198.46	10.5	198.46 13.42		
3+50		4.4	208.9	199.13	9.8	199.13 12.75		
3+75		4.7	208.6	199.80	8.8	199.80 12.08		
4+00		5.8	207.5	200.47	7.0			
4+20 F.T.		6.7	206.6	201.0	5.6	201.88 7.88		

Alley bet A and B Sts from

0 + 00 M.H.	175.19		168.1
0 + 07			
0 + 19			
0 + 21			
0 + 43		11.8	163.2
0 + 50	5	5.2	170.0
0 + 75			
1 + 00 T.P. N. Curve	184.25	5.0	179.2
1 + 25		1.32	182.93
1 + 50	195.08	10.8	184.3
1 + 75		9.9	185.2
1 + 75		4.8	190.3
2 + 00		2.3	194.8
2 + 25 D.E.		1.0	194.1

74 ¹⁵⁶ East to 28 th St			
163.80	4.3		
164.91			
166.27			
167.83	F 3.6		
169.39			
170.30	F 0.3	170.30	
✓ 173.55	5.7	13.36	
176.80	6.1	173.55	
27.0		10.11	
✓ 179.50	4.8	179.50	
182.20	3.0	4.16	
184.90	5.4	184.90	
187.60	5.7	7.68	
190.30	3.8	190.30	
		2.28	

167.07	
163.80	
3.25	
173.00	
184.25	
1.82	
182.93	
12.15	
195.08	
- 171.18	
4.01	
185.19	
T.P. 182.93	
0.73	
M. 183.66	
182.93	
9.65	
M. 192.58	
170.29	
1.10	
M. 171.39	
164.71	
6.68	
187.60	
1768	

✓ Alley bet. A and B from

0+00	M.H.	15425	168.1
0+25		12.2	172.0
0+50		8.4	175.8
0+75	5	4.8	179.4
1+00		1.2	183.0
1+25		19508	8.0 187.1
1+50		3.3	191.8
1+75		20702	11.0 196.0
2+00		7.7	199.3
2+25	V.C.	4.3	202.7
2+50		1.7	205.3
2+75	T.P.	0.11	206.9
2+90	F.T.	20952	2.2 206.8

M.H. West to 27th St.

34

163.80	4.3	171.18
✓167.49	4.5	13.07
		184.25
		19508
171.18	4.6	0.69
✓174.89	4.5	T.P. 194.44
		12.58
		207.02
178.56	4.4	0.11
✓182.25	4.9	T.P. 206.91
		2.61
		209.52
185.94	5.9	175.52
✓189.63	6.4	0.30
		175.52
✓193.32	6.0	10.22
		185.74
✓197.0	5.7	0.21
		185.88
✓198.5	6.8	8.91
		✓194.44
200.0	6.9	
✓200.90	5.9	

✓ 7/5

A St. from P.H.

Wk 31 to 27th 51

181.06
18.36
3.06
1.03

35

194.04

183.60

183.44
10.60

194.04

0+20		10.4	183.6	✓ 178.00	5.6	178.00
0+25		9.3	184.7	✓ 179.53	5.2	179.53
0+50 V. lew...		7.4	186.6	181.06	5.5	181.06
0+75	3	4.7	189.3	✓ 185.09	4.2	185.09
1+00 T.P.		0.87	193.17	189.12	4.0	189.12
1+25	205.42	7.9	197.5	✓ 193.15	4.4	193.15
1+50		3.5	201.9	197.18	4.7	197.18
1+65 D.E.		0.8	204.6	✓ 199.6	5.0	199.6

188.67

193.17
6.86
199.57

0.37

Station 1
A St. from M.H. East to 28th St

0100		194.09	1836	178.00	5.6	178.00	196.8	
0125		10.8	183.2	✓178.50	4.7	178.50	173.0	194.04
0150		11.3	182.7	179.00	3.7	178.50	23.80	0.48
0175		11.2	182.8	✓179.50	3.3	179.50	21.00	193.56
0200		10.4	183.6	180.00	3.6	18.89	25.00	11.56
0225		9.4	184.6	✓180.50	4.1	180.50		205.42
0250	v.c.	8.1	185.9	181.0	4.9	7.89		TP 183.44
0275		6.5	187.5	✓182.97	4.5	182.97		4.95
0300		4.6	189.4	184.95	4.4	5.42		HI 188.39
0325		2.5	191.5	✓186.92	4.6	186.92		TP 193.56
0350	T.P	0.48	193.56	188.90	4.6	13.94		7.30
0425		205.42	9.7	195.7	4.8	190.87		HI 200.86
0400		7.6	197.8	192.85	5.0	9.99		
0425		5.6	199.8	194.82	5.0	194.82		
0450	F.T.	3.6	201.8	196.80	5.0	6.04		
						196.80		
						4.06		

From page 26

Change in Line from M.H. in d/d alley bet "C" and "D" west of 28th to M.H. bet B & C
Commence at M.H. 31 thence 190' N. Parallel to and dist. 70' W. of W. Line 28th St. to E "C" St thence to M.H. in alley bet. "B" & "C" dist 150' W. of W. Line 28th St.

0+00	154.07	0.9	153.2	148.08	5.1		T.P. 15350
0+25	165.18	10.7	154.5	148.18	6.3	148.24	154.07 2.92 153.15 12.03 165.18
0+50		12.0	153.2	148.28	4.9	7.86	1.24 163.94
0+75		14.1	151.1	148.38	2.7	65' 145.48 7.66	4.18 41.168.12 7.16 156.78
1+00		13.8	151.4	148.48	2.9		153.50
1+25		12.2	153.0	148.58	4.4		264 156.14
1+50		11.7	153.2	148.68	4.5	148.68 12.21	T.P. 15350 7.39 H. 160.89
1+75		10.9	154.3	148.78	5.5		
1+90	M.H. E. & St.	10.0	155.2	148.84	6.4	148.84 12.05	T.P. 16092 399
2+25		7.7	157.5	149.24	8.2	149.34 11.55	H. 164.71
2+50		5.9	159.3	149.71	9.6	149.71 11.58	
2+75		4.8	160.6	150.07	10.3	150.07 10.82	
3+00		4.6	160.6	150.44	10.2	150.44 10.45	
3+25		4.0	161.2	150.80	10.4	150.80 10.09	
3+50		1.3	163.9	151.17	12.7	151.17 13.54	
3+75		168.12	7.2	160.9	9.4	151.53	151.80
3+95.8 = 3+88.7	M.H. (Cont'd page 27)	9.6	158.6	151.80	6.8	151.80 13.18	12.91

See page 27

Gregory Sewer Levels d 4/16/11
bet G and Market East of 27th

Station	Grade	176.40	176.36	170.2	172.1	173.3	174.1	173.2	171.4	168.9	165.7	163.37	161.67	158.17	155.37	150.15	148.6	151.04	144.76	142.56
3 1/2' E of G	0.04																			
0+00	sewer should be 3.5 deep.			6.2																
+20				4.3																
+40				3.1																
+75				2.3																
1				3.2																
+30				5.0																
+40				7.5																
+60				10.7																
T.P.	0.30	163.67	130.3	163.37																
+80				2.0																
2				5.5																
+20				8.3																
+50				13.5																
T.P.	0.82	151.86	146.3	151.04																
+75				7.1																
3+00				9.3																

+40 = Ground.

10.2 141.66

+40 Top of Center of M.H.

11.38 140.48

Flow Line

26.75 126.11

38

Drawing

39

1908 East side of 32nd St. Aligned

0+00		85.25	
0+25			
0+50			
0+75			
1+00	T.P.	6.53	78.72
1+25		85.36	9.9
1+50		7.1	78.3
1+75			
2+00		6.8	78.6
2+25			
2+50		6.8	78.6
2+75			
3+00		5.5	79.9
3+25			
3+50		4.7	80.7
3+75			
4+00		3.8	81.6

went same as planned on page 14 - Book 284.

74.00		74.20		77.74	40
74.10		9.36		7.51	
74.20				85.25	H.I.
74.30				6.53	
74.40		74.40		78.72	T.P.
74.50		8.50		6.64	
74.60				85.36	
74.70				45.72	
74.80	4.3	74.60		4.14	
74.90		8.30		82.90	
75.00	3.8			78.72	
75.10				4.84	
75.20	4.7			83.56	
75.30					
75.40	5.3				
75.50					
75.60	6.0				

4425		85.36		
4445.63 M.H. # Dodson St.	2.0	83.4		
4495		1.2	84.2	
5100 T.P.	1.01	84.35		
5425 X, X	91.19	6.7	84.5	
5750		6.5	84.7	
5775		5.0	86.2	
6100		4.5	86.7	
6445		5.6	85.6	
6450		5.7	85.5	
6475		6.2	85.0	
7100		6.0	85.2	
7425		5.2	86.0	
7450		2.8	88.4	
7475				
7479 M.H. 3P	1.15	90.0		
8100 T.P.	0.59	90.60		
8425	92.53	0.8	91.7	
8450		8.1	84.4	

75.70				
✓ 75.78	7.6	75.78	84.35	85.36
		7.12	6.41	1.01
✓ 75.90	8.3	75.90	90.76	84.35
		12.40		6.84
✓ 76.00	8.3	76.00	72.00	91.19
		12.30	13.76	0.59
7610	8.4			90.60
			77.12	1.98
✓ 76.20	8.5	76.20	13.67	92.53
		12.10		82.70
7630	9.9	76.30	77.20	84.35
		12.00	13.56	3.95
✓ 76.40	10.3	76.40		88.30 Ad.
		11.90	90.60	90.60
✓ 76.50	9.1	76.50	2.94	1.16
		11.80	93.54	91.76
✓ 76.60	8.9	76.60	77.20	83.68
		11.70	16.34	3.71
✓ 76.70	8.3	76.70		87.39
		11.60		84.35
✓ 76.80	8.4	76.80		5.45
		13.00		89.80
✓ 76.90	9.1	77.00		84.35
		12.80		5.40
✓ 77.00	11.4	77.10		89.75
7710		12.70	76.90	
			12.85	
✓ 77.12	12.9	77.12	77.00	
		14.64	12.75	
✓ 77.20	13.4			
7730	14.4	77.40		
✓ 77.40	7.0	77.40	7.99	

9+00				✓ 77.60	7.7	$\frac{77.60}{9.13}$	92.53 H.I.
9+50	92.53	7.2	85.8			8.85	
10+00				✓ 77.80	6.2	$\frac{77.80}{8.93}$	83.68 T.P.
10+50		8.6	84.0			8.15	
10+50	T.P.	8.6	83.9	✓ 78.00	5.9	$\frac{78.00}{8.73}$	88.83
11+00				✓ 78.20	5.6	$\frac{78.20}{8.53}$	4.19
11+50	88.88	8.85	83.68			8.53	84.64
11+50		6.3	82.5	✓ 78.40	4.1	$\frac{78.40}{8.33}$	7.97
12+00				✓ 78.60	4.1	$\frac{78.60}{8.13}$	92.01
12+50		6.1	82.7			8.13	83.68
12+50				✓ 78.80	4.7	$\frac{78.80}{7.93}$	3.71
13+00		5.3	83.5			7.93	87.39 H.I.
13+00		4.8	84.0	✓ 79.00	5.0	$\frac{79.00}{7.73}$	83.68
13+27.3	H.I. = 7.51	4.1	84.7	✓ 79.20	5.5	$\frac{79.20}{7.53}$	3.05
13+50		4.2	84.6	✓ 79.31	5.3	$\frac{79.31}{7.42}$	86.73
14+00		3.9	84.9	✓ 79.40	5.5	$\frac{79.40}{9.43}$	T.P. 84.64
14+50				✓ 79.60	5.9	$\frac{79.60}{9.23}$	4.19
15+00		3.3	85.5			9.23	88.83
15+50		3.2	85.6	✓ 79.80	5.8	$\frac{79.80}{9.03}$	
16+00		4.1	84.7	✓ 80.00	4.7	$\frac{80.00}{8.83}$	
16+50	T.P.	4.19	84.64	✓ 80.20	4.4	$\frac{80.20}{8.63}$	
16+50	92.01	7.8	84.2	✓ 80.40	3.8	$\frac{80.40}{8.43}$	
16+50		7.3	84.7	✓ 80.60	4.1	$\frac{80.60}{8.23}$	

50
274
30.2

7.7
5.4
2.3

43

17+80	92.01	7.0	85.0	80.80	4.2	80.80 7.03	92.01 9.25 82.76 4.17 78.59
17+29.4 M.H. E 31 st		6.9	85.1	80.92	4.2	80.92 7.91	82.76 87.84
17+54.4				81.02		81.02 7.81	87.84 87.77
17+67.6 cor. bark							
21.6							
17.89 2 N. side							
18+80 T.P.		4.17	87.84	81.20	6.6	81.20 13.96 13.48 48	95.61 86.86 5.82 5.82 80.84 4.11 4.11 93.90 84.65 5.80 4.80
18+50	95.61	6.6	89.0	81.40	7.6	81.40 13.48	88.10 7.31 77.41 78.85 T.P. 7.31 88.16
19+00		5.3	90.3	81.60	8.7	81.60 13.28	94.68 9
+50		4.4	91.2	81.80	9.4	81.80 13.08	95.16 92.01 4.17
20+80		4.0	91.6	82.00	9.6	82.00 81.80	87.79 87.84 5.16 7.79 95.61 87.84 9.25
+50		4.5	91.1	82.20	8.9	82.20 12.88	94.93 95.61 87.84 9.25
21+00		4.7	90.9	82.40	8.5	82.40 12.68	92.40 89.79 3.53 93.32
+50		5.5	90.1	82.60	9.5	82.60 12.48	93.32 83.20 87.84 6.84 94.68 87.79 2.65 92.44
21+73.30 M.H. E "H" St.		6.9	88.9	82.70	6.0	82.70 12.28	95.16 83.20 87.84 6.84 94.68 87.79 2.65 92.44
22+00 T.P.		5.82	89.79	82.80	7.0	82.80 12.08	95.16 83.20 87.84 6.84 94.68 87.79 2.65 92.44
22+50	93.90	4.0	89.9	83.00	6.9	83.00 82.70	95.16 83.20 87.84 6.84 94.68 87.79 2.65 92.44
23+00		4.5	89.7	83.20	6.2	83.20 11.98	95.16 83.20 87.84 6.84 94.68 87.79 2.65 92.44
+50	97.41	8.5	88.9	83.40	5.4	83.40 11.88	95.16 83.20 87.84 6.84 94.68 87.79 2.65 92.44

31400 +07		102.39	9.9	92.5	89.01	3.5	89.01	102.39	93.14
	Tractor				89.24		89.24	0.66	0.66
					89.83		89.83	101.73	92.48 TP
31450 +60					90.64		90.64	12.52	12.52
31475					90.96	90.96	90.96	114.25	105.00
					91.45		91.45	0.85	0.85
32100 +10					92.27	F.2.7	92.27	113.40	104.15
32125			12.8	49.6	92.59		92.59	12.55	12.55
32150			5.5	96.9	93.08	3.8	93.08	125.95	116.70
32175			2.4	100.0.0	93.90	6.1	93.90	163	TP 94.05
32195			1.1	101.3	94.71	6.6	94.71	412	41.98.17
33100	T.P.		0.66	101.73	95.53	6.2	95.53	TP 101.73	4.91
33125		114.25	11.5	102.8	96.34	6.5	96.34	41.106.64	101.73
33150			9.5	104.8	97.16	7.6	97.16	8.41	41.110.14
33175			8.1	106.2	97.97	8.2	97.97	TP 113.40	12.57
33+89.6	M.H. Est.		7.1	107.2	98.46	8.7	98.46	41.125.77	
34100			5.7	108.60	99.815	8.8	99.815	98.46	11.68
34125			3.2	111.1	103.072	8.0	103.07		
34150	T.P.		0.85	113.40	106.33	7.1	106.33		
34175		125.95	9.2	116.7	109.59	7.1	109.59		
35100			6.0	119.9	112.85	7.0	112.85		

3768.7
382

154.43
4950.70 172.24 H.I.

39+25 171.71 5.6 166.1
 39+50 4.2 167.5
 39+75 3.1 168.6
 40+00 1.6 170.1
 40+25 T.P 0.98 170.93
 40+50 181.15 9.2 172.0
 40+75 8.7 172.5
 41+00 8.1 173.1
 41+25 7.5 173.7
 41+50.6 = M.H. 0 Cst. 173.0
 41+50 7.2 174.0
 41+75 7.3 173.9
 42+00 9.0 172.2
 42+25 9.3 171.9
 42+50 9.1 172.1
 42+75 7.9 173.3
 43+00 7.8 173.4
 43+25 8.2 173.0

✓155.68 10.4 155.64
 16.56 171.71 H.I. 162.46
 156.93 0.78 0.78
 15.31 170.93 161.48
 158.18 10.22 10.22
 14.06 181.15 H.I. 171.90
 159.43 1.18 1.18
 12.81 179.97 170.72
 160.68 2.85 2.85
 11.56 182.82 175.57
 161.93 170.93 T.P 162.53
 14.99 5.99 8.97
 176.92 H.I. 171.56
 163.18 6.37
 13.74 165.3
 164.43
 12.49
 166.93 37 55.7
 9.99 37 64.7
 167.44 168.99
 9.48 7.93
 167.95
 8.97
 167.698 4.9
 168.47
 8.45
 167.956 4.1
 168.214 5.1
 168.472 4.9
 168.730 4.3

43+50	181.15	10.2	171.0
43+75		10.3	170.9
44+00		8.0	173.2
44+25		4.6	176.6
44+50 T.P		1.18	179.97
44+75	182.82	1.0	181.8
45+00		2.8	180.0
45+30.95 FMH		2.3	180.5

17
1055
6^{1/2}

47

164.73

176.92 ~~FMH~~

✓ 168.988	2.0	169.50	T.P. 179.97
		7.42	2.46
		169.76	182.43
		12.67	
		170.02	
		12.41	
		170.28	26
		12.15	
		170.54	
		11.89	
		170.278	11.5
		170.536	9.5
		11.57	
✓ 170.86	9.6		

Line in Alley bet. H. & I sts

0+00	M.H. & alley	95.72	7.7	88.0
0+25			6.9	88.8
0+50	5		6.7	89.0
0+75			5.8	89.9
1+00			4.3	91.4
1+25			1.6	94.1
1+50	T.P.		0.93	94.79
1+75		106.14	9.9	96.2
2+00			8.5	97.6
2+25			7.6	98.5
2+50			7.0	99.1
2+75			6.4	99.7
2+80	M.H.		6.1	100.0
3+00			5.8	100.3
3+25			4.9	101.2
3+50			4.3	101.8
3+75			4.1	102.0
4+00				

from M.H. @ 31st running 590 ft West

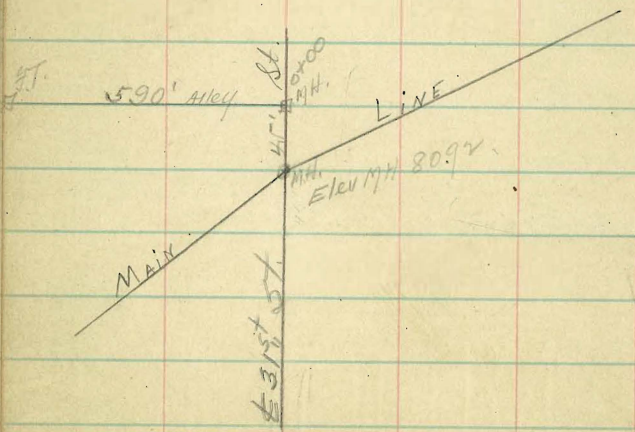
82.00	6.0	B.M. NE. Cor 31 st & I	82.76
83.25	5.5		12.96
84.50	4.5		95.72
85.75	4.1		T.P. 0.93
87.00	4.4		T.P. 94.79
88.25	5.8		11.35
89.50	5.3		106.14
90.75	5.5		82.76
92.00	5.6		12.59
93.25	5.2		M.T. 95.35
94.50	4.6		5.85
95.75	4.0		89.50
96.00	3.3		12.98
96.67	3.3		41.10
97.51	2.8		2.48
98.35	2.9		
99.19	2.6		
100.03	2.0		

at Sta 5+00 the line angles to a pt. opp. Sta 5+90 which is 2' N. of straight line

49

4+25	106.14	3.1	103.0	100.86	2.1	100.86	106.14
						<u>1.62</u>	2.29
4+50 T.P.		2.29	103.85	101.70	2.1		103.85 T.P.
							9.72
4+75	113.57	9.2	104.4	102.54	1.9	102.54	113.57
						<u>7.83</u>	102.48
5+00		7.4	106.2	103.38	2.8		7.63
							100.85
5+25		6.2	107.4	104.22	3.2	104.22	9.52
						<u>6.13</u>	110.37
5+50		4.8	108.8	105.06	3.7		
5+75		2.7	110.9	105.90	5.0	105.90	
						<u>4.47</u>	
5+90 F.T.		1.7	111.9	106.40	5.5	106.40	
						<u>3.97</u>	

Finish stakes 10-26-09
 Lockwood
 Evans
 Lundert



sewer on Third from no. 1 sta. north of alive

line of maple to Dec. 11/11

Chil. 50
Puffin
Williams

Sta.	Ht.	Road	Ground	Grade	cut		
JP	741	263.45	256.04	B-M	250.52		
0+00			249.9		245.60	4.3	246.47
+50			12.93		250.52	4.0	248.00
1+00			11.9		251.6	4.3	249.71
+50			11.0		252.5	4.3	250.80
2+00			9.9		253.6	4.5	253.08
+50			8.94		254.51	4.6	254.53
3+00			8.0		255.5	4.7	255.25
+40.48			7.4		256.4	4.6	254.53
+50			7.3		256.2	4.6	254.53
4+00			6.8		256.7	4.3	253.80
+50			6.1		257.4	4.3	253.80
5+00			5.08		258.37	4.6	254.53
+50			4.4		259.1	4.6	255.25
6+00			3.5		260.0	4.8	255.97
+50			2.8		260.7	4.7	

machine of maple

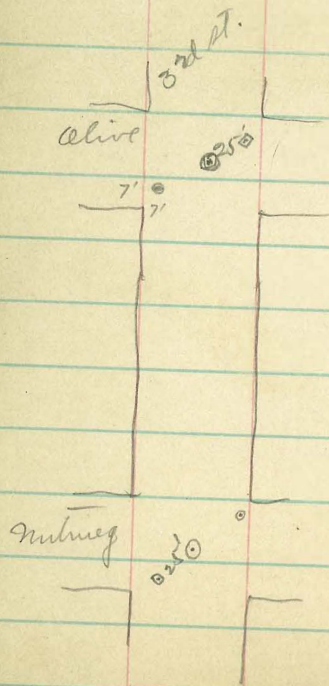
M.H. center of nutmeg

250.52
5.30
255.82 H.T.
245.60
10.22
249.06 249.93
6.76 5.89
251.50
8.21
258.37
5.19
263.56 H.T.
251.64
11.92
253.80 254.53
9.76 9.03
253.97
7.59
246.47
9.36
247.83 248.00
8.49 7.62
259.71 H.T.
250.80
8.91
252.36
11.20
253.08
10.48
255.25
8.31

cont. from page 50

51

Sta.	H.I.	Rod	Ground	Grade	cut		
7+00	263.45	2.04	261.41	256.70	4.7	263.56 H.I.	257.00
+20.9		1.8	261.7	257.00	4.7	256.70 ✓	6.56 ✓
+50		1.4	262.1	257.12	5.0		
8+00		1.12	262.33	257.32	5.0		
+30		1.3	262.2	257.44	4.8		



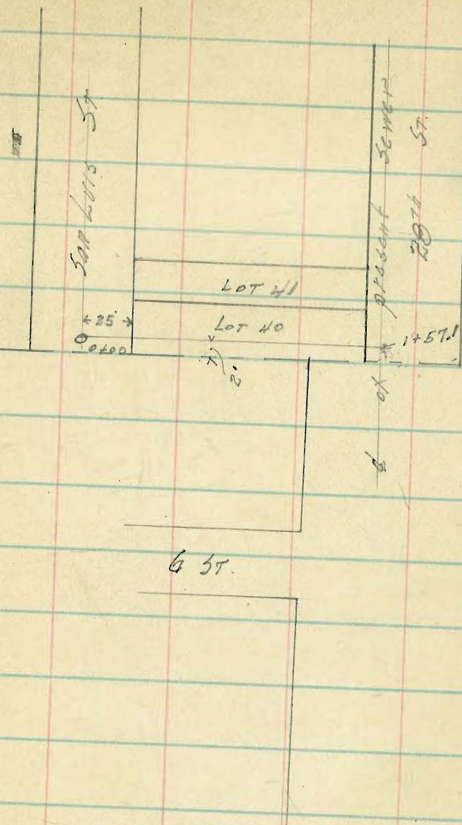
2/3/25

Gregory.

Sewer Levels on
 Line 2' N. of S.L. of Lot 40
 Pacific View Homestead
 from E. of San Luis St. to
 Main Line in 38th St.

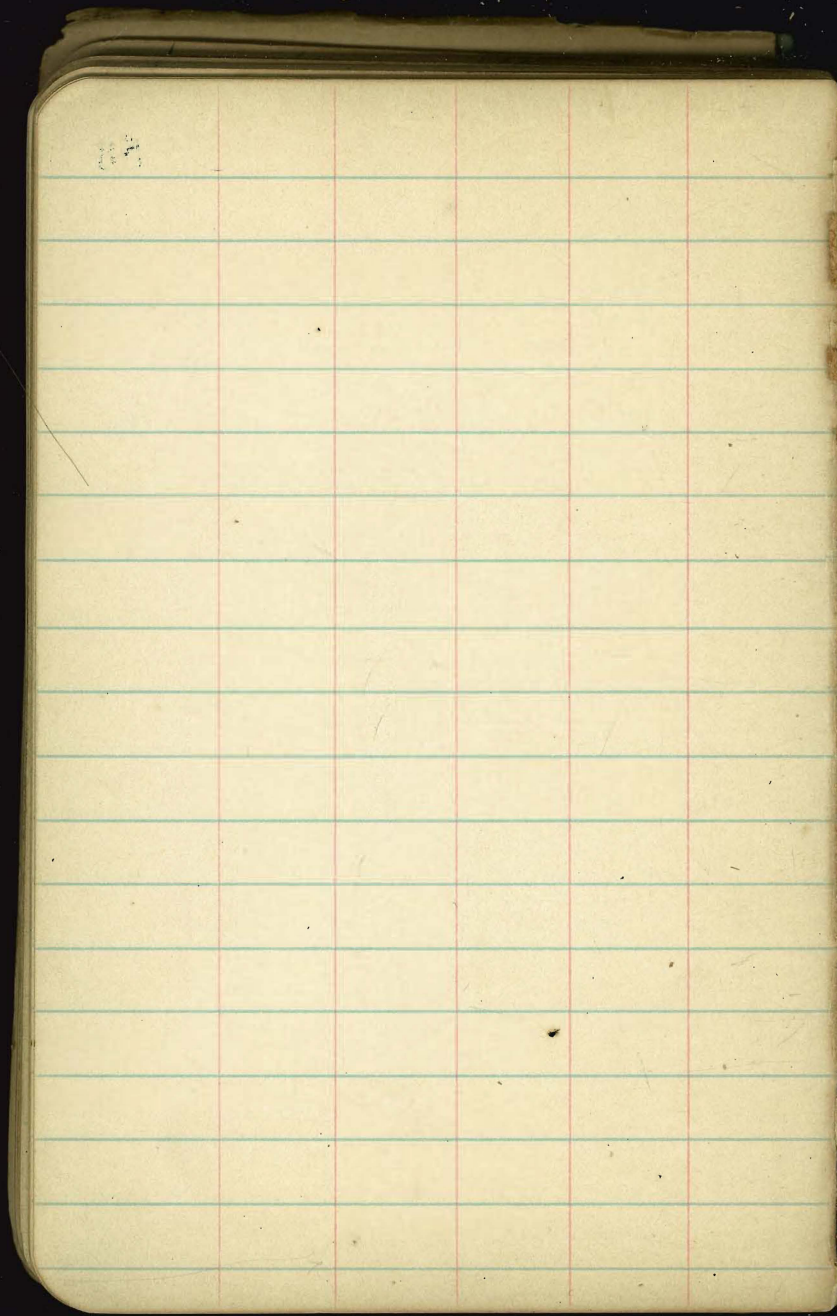
	12.98	111.01		98.03
	13.05	124.03	0.03	110.98
	801	131.98	0.06	123.97
E. of San Luis St				
+0+00			1.53	130.45
+50			10.5	121.18
+75			16.6	115.4
+22			16.4	115.6
+34			11.2	120.78
+44			4.7	127.28
+46			5.4	126.58
+55			5.4	126.58
+57.1			5.93	126.00

51 1/2

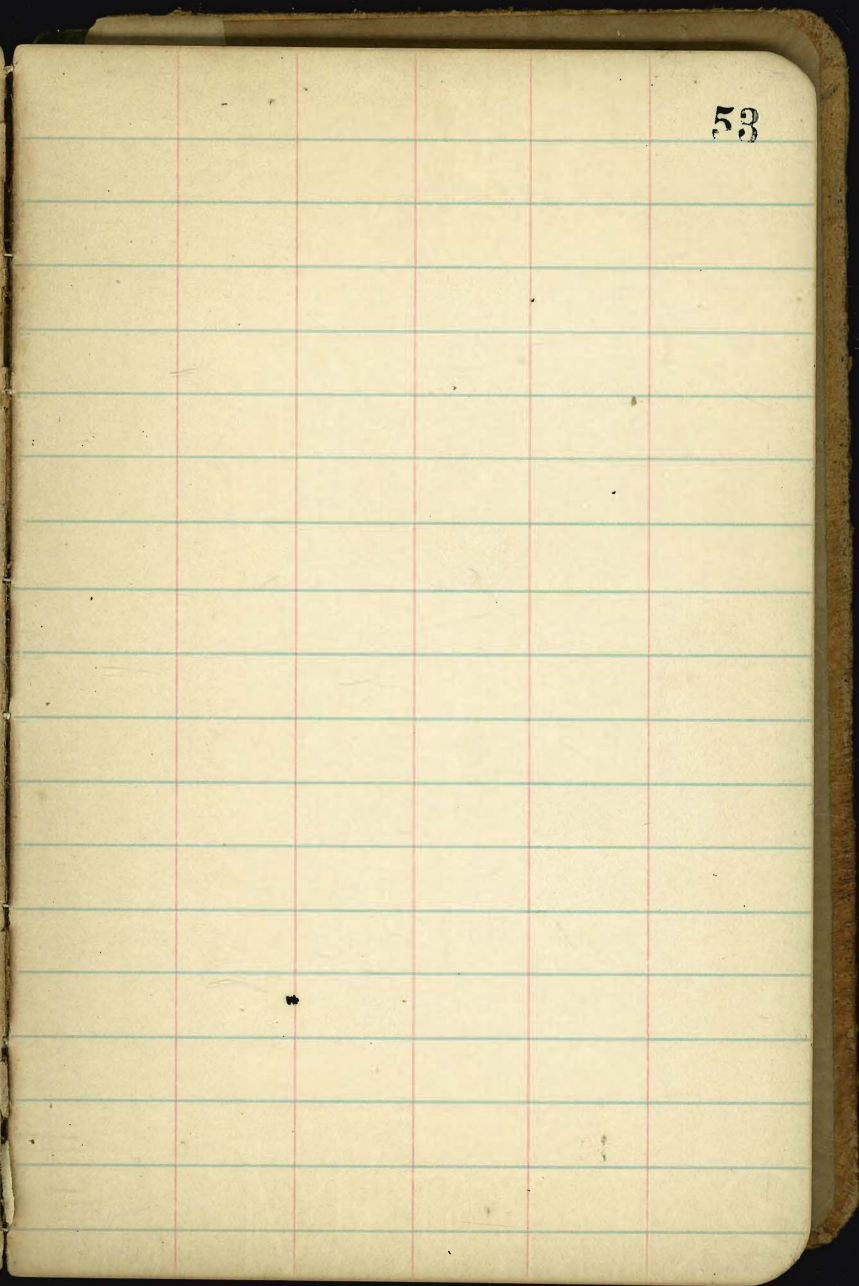


51

52



62



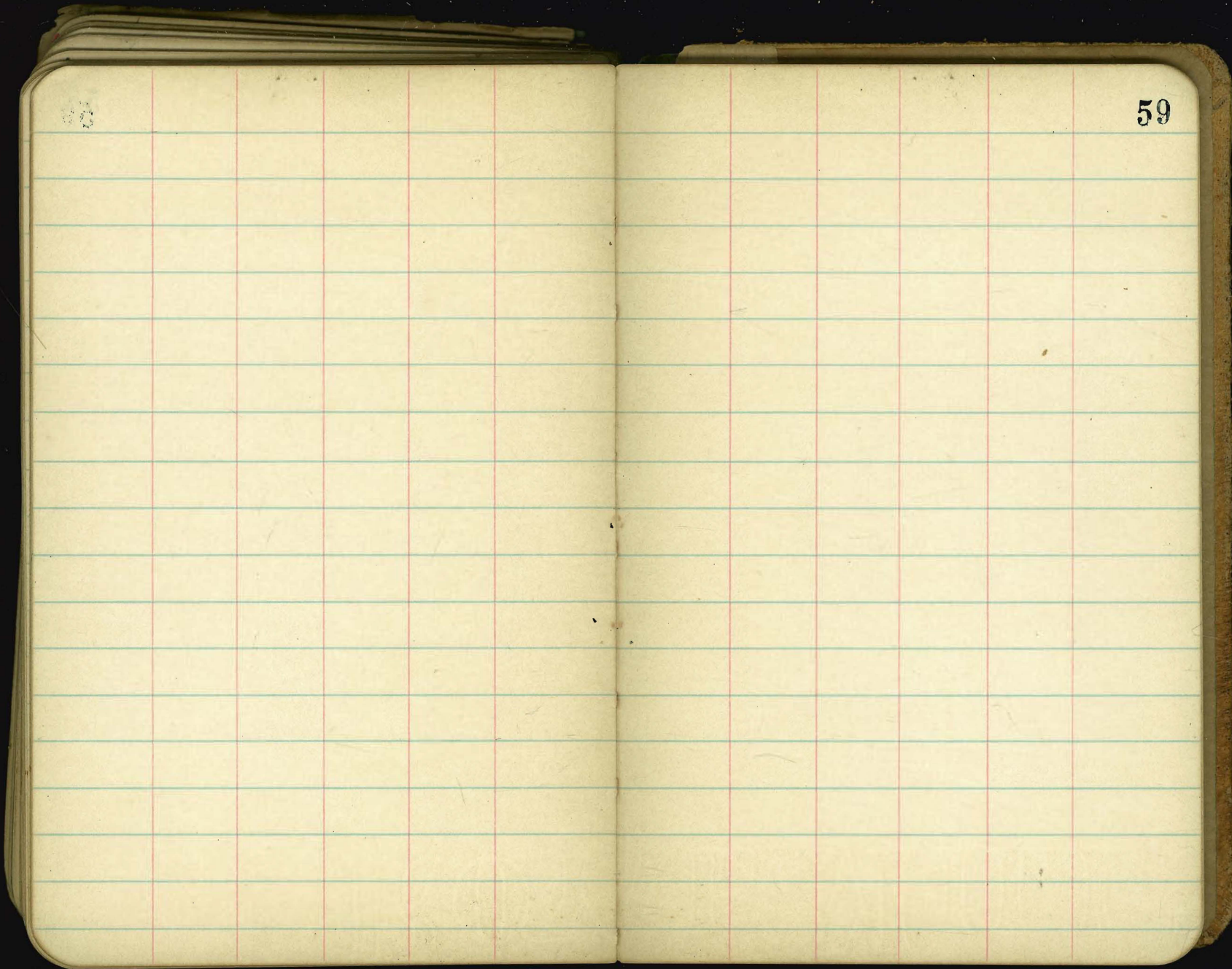
63

53

54

54

55



59

59

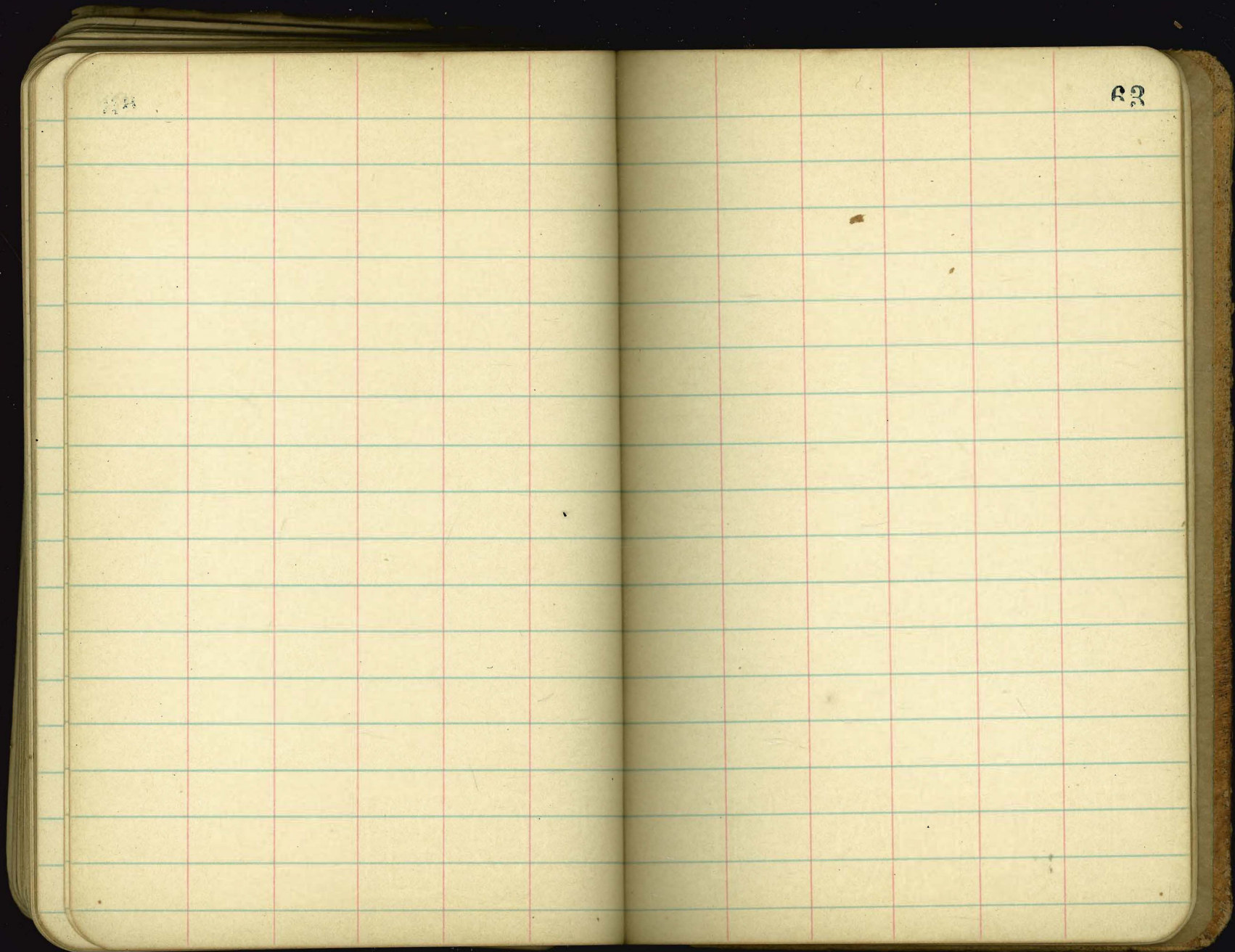
60

60

61

61

62

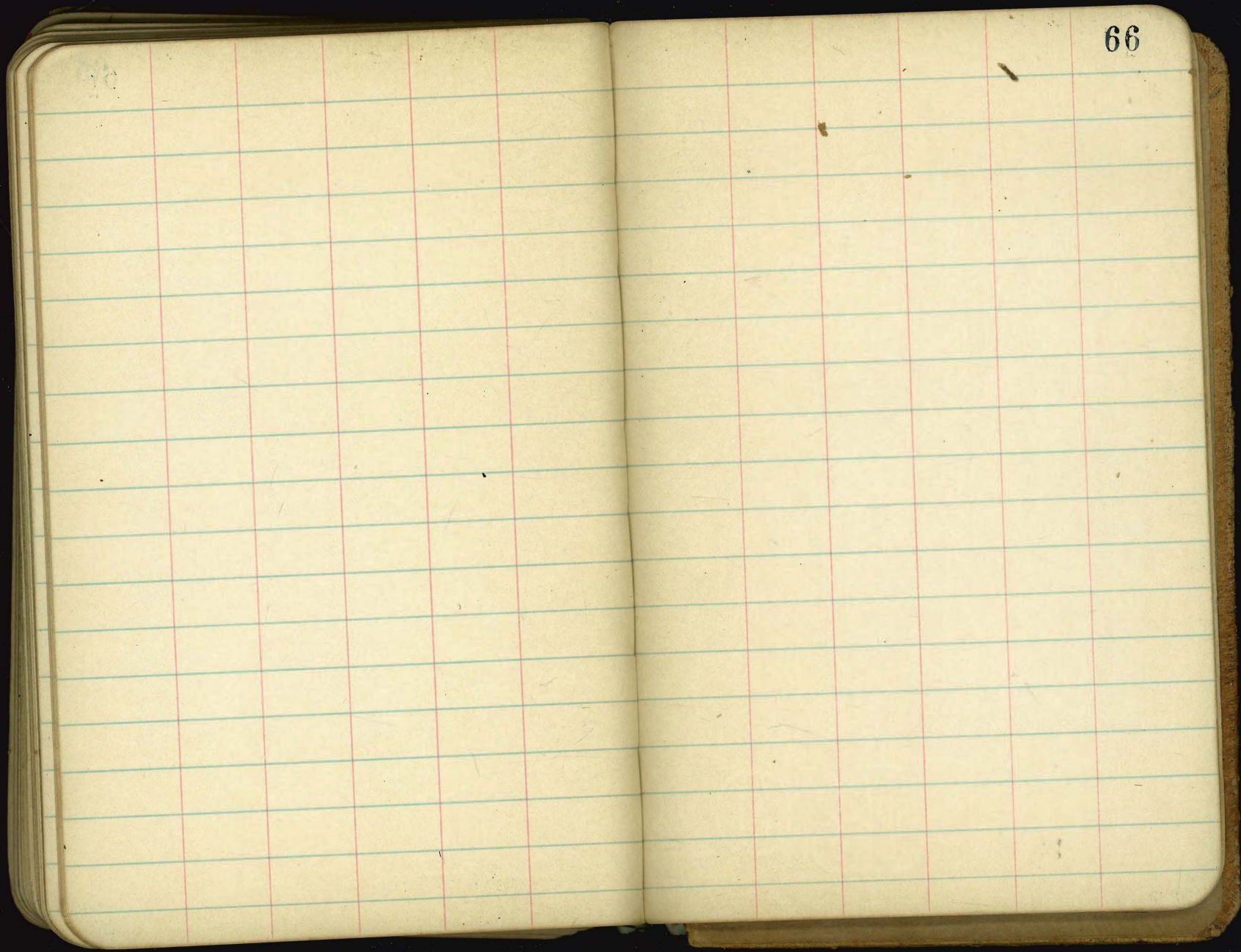


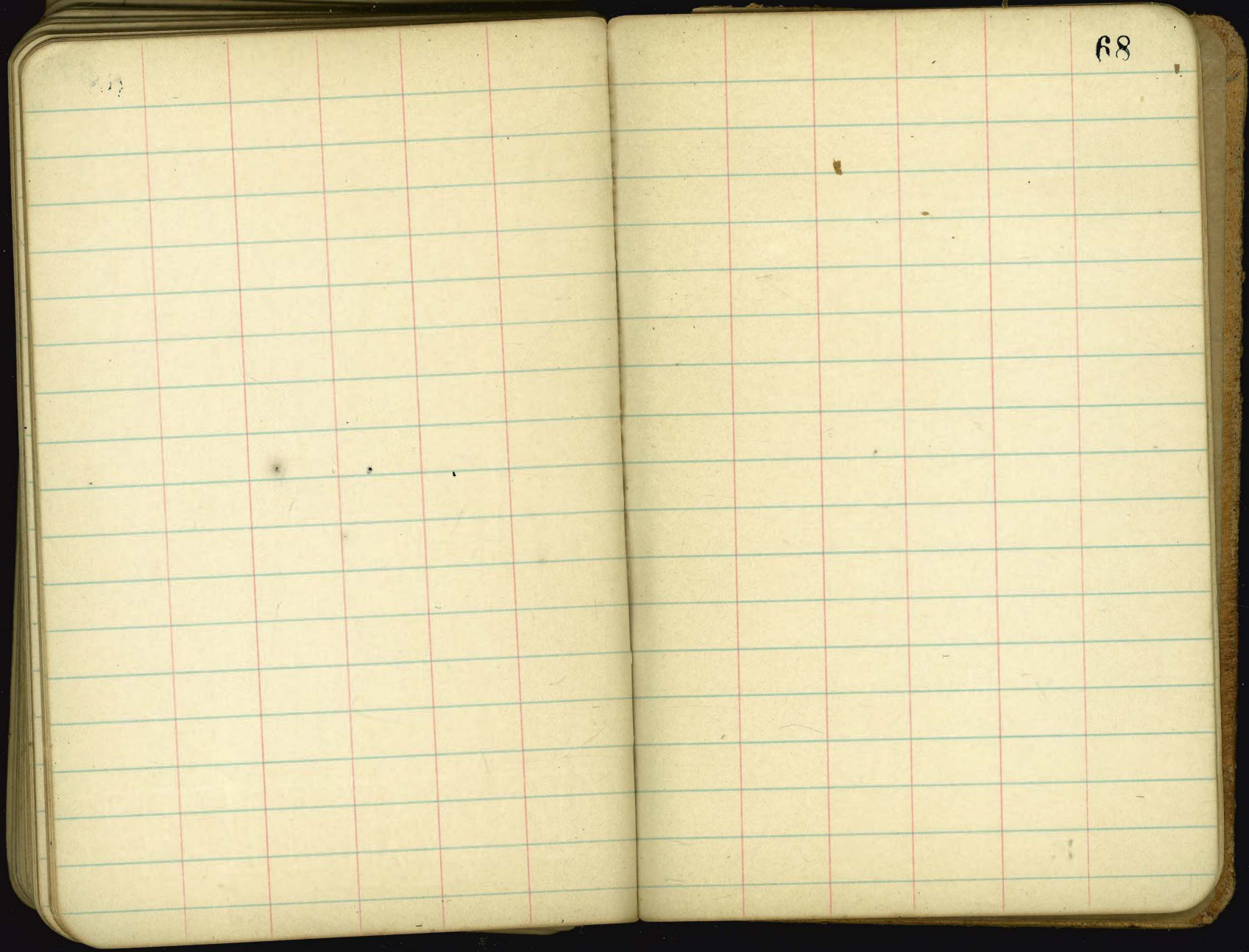
128

129

63

64





68

68

69

71

7 1/2

I
Lateral to Jones House 131K113 E.W. Morse addn

0+00 = Sta W100

95.40

Grade
✓ 83.86

H. 95.40

0+20

6.5

88.9

✓ 84.04

5.1

84.0 ✓

9.62

85.3

83.6

1.70

1.57

1.306

12.46

57

570

0+50

6.8

88.6

✓ 84.32

4.5

84.32

9.34

1+00

7.5

87.9

✓ 84.78

3.2

84.78

8.88

1+50

1+57 House

8.7

86.7

✓ 85.23

1.4

85.23

8.43

108

57

756

540

6.15

102

516

Sta W100 TP

92.95

0.76

93.66 H.

Lines 1' 8" x 2' 8"

20" x 32"

84.78

4.5

2.3

137
1.685
2.244
34.218

4150.6
3768.6
382.0

382) 19.00000000 (1049
1528

.05
63
15
30
315

.05
5
.05
25
28
10
125

3768.7
3389.6
379.1
160.86
147.86
1900

72

379.1) 49.40000000 (1303
3791
11490
11373

111
11373
11700
11373
1303
10.4
52.12
1303
1365.12

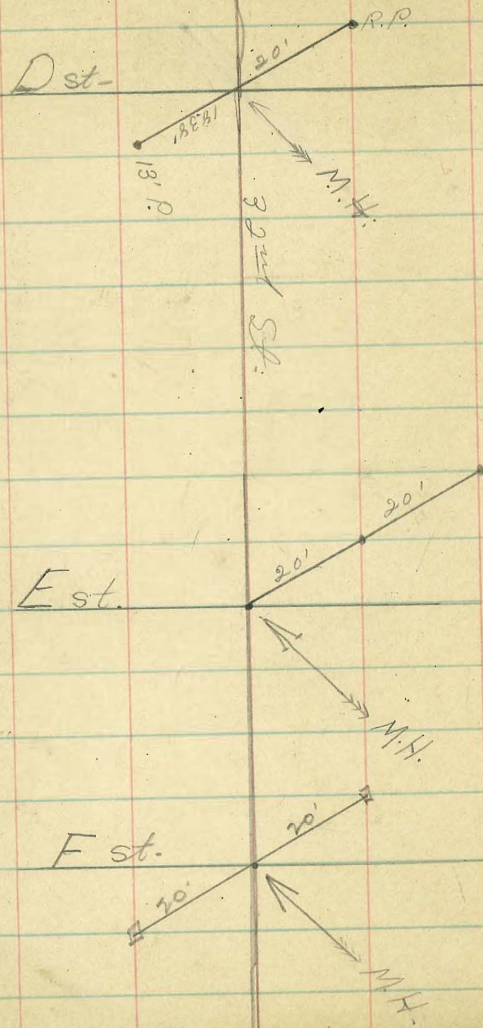
1303
10.7
9121
10424
1303
24361

147.86
9846
49.40
1303

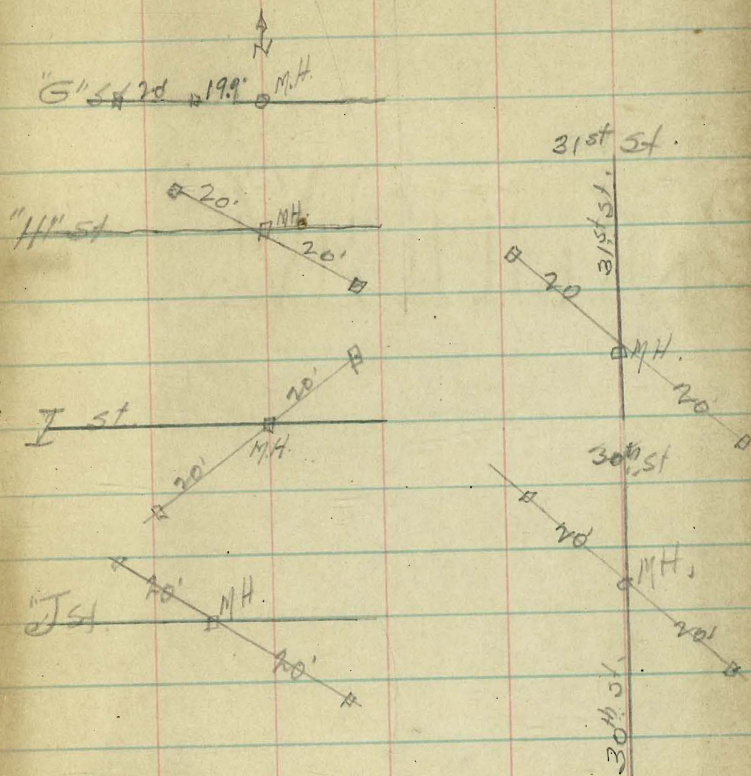
.1303
50
651500
99.815
106.330 ✓
112845 ✓
119.360 ✓
125.875 ✓
132.390 ✓
138.905 ✓
145.420
2.436
147.856

147.86

Reference Points for Man Holes



on 32nd St. Sewer Lines



Published by H. S. CROCKER COMPANY, Stationers, Drawing
 Instruments, etc., San Francisco.

VERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

DEGREES.	¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.		
		100.00	0.44	100.00	0.87	99.99	1.31	89
8	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
4	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
6	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
6	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
2	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
5	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
5	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
2	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
7	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
8	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
6	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
1	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
4	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
3	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
9	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
3	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
3	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
1	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
5	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
7	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
6	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
2	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
5	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
5	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
3	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
8	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
0	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
9	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
4	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
6	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
5	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
4	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
3	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
2	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
1	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
0	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
9	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
8	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
7	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
6	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
5	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
4	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
3	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
2	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
1	70.71	70.71						

DEGREES.

DEGREES.

Handwritten notes and calculations on the left page of the notebook, including various numbers and algebraic expressions such as $2 \times 6 \times 3$, $4 \times 6 \times 6$, and $4 \times 6 \times 8 \times 6$. There are also several vertical columns of numbers and some larger calculations with horizontal lines.