

San Diego Town

N^o 4.

9

TRANSIT

F.B. 672

672

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

PUBLISHED BY

EDWARD DENNY & CO.

DRAWING PAPER & MATERIAL, MATHEMATICAL INSTRUMENTS, ETC.,
STATIONERS AND PRINTERS,
SAN FRANCISCO, 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.
°		°		°		°	
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

20th St N. of II. Hgt 4 ft

W. of Centre

Sta

0+00 = P.C. R 100
S 15 ft W. of W. L. of 20th St

+05 = 2.30

+10 = 3.00

+15 = 7.30

+20 = 10.00

+22.5 = 11.15 = P. Re. C. 100' L.

+32.5 = 5.00' L. P.I. 67.24

+42.5 = 10

Sub. Sta. 38.2

+52.5 = 15

Curva 33.42

+62.5 = 20

+72.5 = 25

+82.5 = 30

+89.9 = 33.42 = P.T.

+11.6 = 50' N. of N. L. II St

+36.

+61.

+86

2+11.6

+36.

+61.

+86.

20th St, N. of I St plus 4 ft

W. of Centre

3+11.6

+36.

+29

+65 = S. L. of H. St

+90

4+15

+40

+65 = N. L. of H. St

+90

5+15

+40

+65

+90

6+15

+40

+65

+90

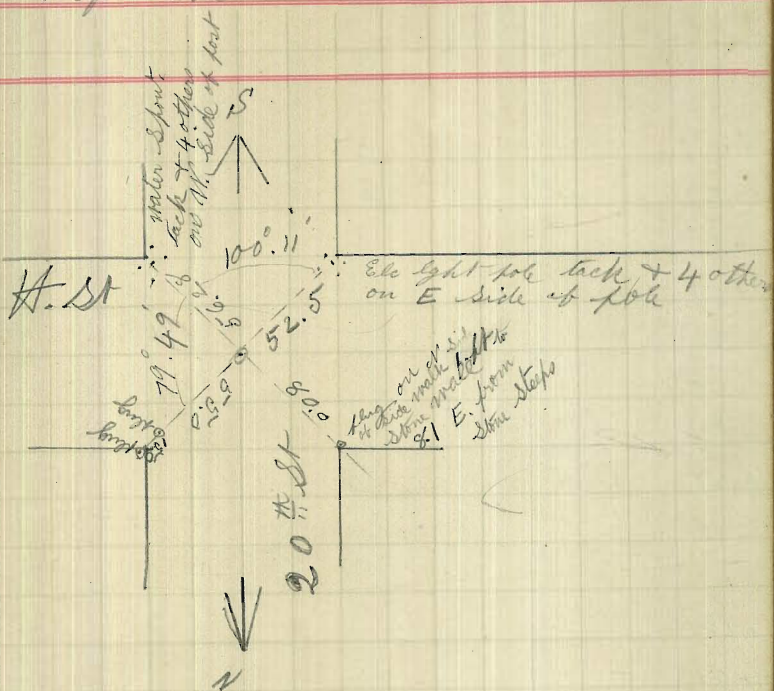
7+15

+40

+77 = S. L. of G. St

+97

8+17 = C. L. St = angle 13.30" L



20th N. of I.

Sta

8+37

+57 = N. La. E. St.

+82

9+07

+32

+57

+82

10+07

+32

+57

+82

11+07

+32

²⁴
+59 = S. La. F. St. flush tank

St W of 15th St

Sta. plugs 4 ft S of Centre

+45.8

3+20.8

3+05.1 = W. edge of Bridge 4 ft N of plug line

+95.8 lb in Box and 3 others

+70.

+45.

2+20.

+95.

+70.

+45.

1+20.

+95.

+70.8 = 25' W of W side of 15th St

+59.2 22.08 = P.T.

+54 20'

+44 = 16'

Curve 22.08'

+34 = 12'

Sub. tan 28.8'

+24 = 8'

P.I. 44.16'

+14 = def 4.08' Lc

+04 = P.C. 38.08' Lc

0 = S. 24' S of Centre

I St Wap 15th fluge 4 ft S of Centre
 Sta fluge 4 ft S of Centre

+43.3 = E line 14th St = flush tank
 4 + 20.8
 + 9.5
 3 + 70.8

H St W of 15th plugs 4 ft

S. of Centre

Sta

+67.3

+42.5

3+17.

+92

+67.

+42.3

+17.3

2+00.8 = W line of Brg 4 ft N. of fly line

+92.5 tack + 3 others on bridge

+67.

+42.3

1+17.

+92.

+67.3 = 25' W of W L. of 15th

+56.3 67.50 P. T. = 14' W of front

+44.5 65

+39.5 61

+29.7 57

+19.8 53

+09.9 = 49

0 = P.C. X 22' S of Centre of H St

Alford

For Alteration see page
30

Measurement

from plug

line to S.

rail at 21'

on track

3.6

4.1

4.6

5.1

9.0

At far track

H. St W of 15th Ave 4 1/2 S. of Cent

Sta.

For Alteration See Pg 30

+42.5 =
25.2
4 + 17.
3792.3
E line 14th St

Along line
 dit from
 ply line to
 trail of
 St Co track

St Co line

o	
o	2.6
o	2.8
o	3.2

20th St S. of C. St
Sta. Hgs 4 at W. of C. St

+81.			
+61.			
+41.	=	N. L. D. St	
3 +16.			
+91			
+66.			
+41.			
2 +16.			
+91.			
+66.			
+41.			
1 +16.			
+91.			
+66.			
+41.1 =	=	P. I. = S. L. C. St	
+395 = 22° 33'		P. I. 45° 06'	
+38. = 17° 15'		Sub tan 20.7	
+20 = 11° 30'		Curva 22.33'	
+10 = 5° 45'			
0 + 10 =	P. C. = 115' R	S. 22' from C. St = 4.1	7.9

Note! Lane on 20th St. S. of C. St was produced
by taking Ang on 22nd St at 88' W. of Mon on
K. St and Mon on F. St Ang at 88' St = 00° 11' 30" S
Thence! Back Sight at K. St on 20th from 88' St
and turning 00° 11' 30" S. run to C. St. Width = 4.1 W.
of Centre of Street as Graded, at S. Lane of C. St

20th St S of G. St 19.4 ft W of ditch

Sta

+76.

+81.

+26.

8 + 0.5 = S. Loop E St

+81.

+61.

+41.

7 + 21.5 = 24.1 to commence post from flag
N. Loop E St

+96.

+71.

+46.

6 + 21.5

+96.

+71.

+46.

5 + 21.5

+96.

+71.

+46.

+21 = S. L. G. St

4 + 0.5

20[#] St S of C est

Sta

11 + 02.5 = N line F. St = flush tank

+ 76.

+ 51.

+ 26.

10 + 01.5

+ 76.

+ 51.

+ 26.

9 + 01.5

20th St S. of J. St

Sta. Pgs 4 ft W. of Center of St.

+15

+60

+35

2 +10

+85

+60

+35

1 +10.0 = 50' S. of S. of J. St

+87.3 = 34.09 P.T. = 27.5 S. of S. of J. St

+79 = 30

+69 = 25

+59 = 20

+49 = 15

+39 = 10

+29 = 5

+19.0

+18.75 = 11° 15'

+12 = 7° 12'

+06 = 3° 36'

0

P.C. 100' R

P.C.

Curve 34' 09'
Sub tan 38.9
P.I. 68' 18'Curve 11' 15'
Sub tan 7.5
P.I. 22' 30"P.C. = S. 13^{20' E} W of W. of 20th St

20th St S of II St

Sta

4 ft W of Center

+60 =

+35

3+10

N. E. of J. St = flush tank

Hawthorn E. of 1st St

Sta

+ 28.4 = E.T. = 5" E of E. of 2nd St

3 + 18. = B. 4

+ 98. = B. 3

+ 78. = B. 2

+ 58. = B. 1

+ 40.4 = B.T. = 5' W of W. line 2nd St - Y. S.

2 + 17.6

+ 92.

+ 67.

+ 42.

1 + 17.6

+ 92.

+ 67.6 = 25' E of E. of 1st St

+ 56 = 66° 20' P.T.

+ 50 = 64° 10'

+ 40 = 60° 20'

+ 30 = 56° 30'

+ 20 = 52° 40'

+ 10 = 48° 00'

0 + 01 = P.C. = Y. 22 = 23.5 S of Center

Hawthorn St E of 1st St

Sta page 4 ft S. on cut + Centre on fill

+06.7	B. 18 = 1+10 = B. 11	31.9 N.W. of Hawthorn	
6+42.5	45.	P.T. 27.4 N.W. of Hawthorn	
+96.7	B. 17	42° 30'	
+86.7	B. 16	38° 15'	
+76.7	B. 15	54° 00'	
+66.7	B. 14	29° 45'	
+56.7	B. 13	25° 30'	
+46.7	B. 12	21° 15'	
+36.7	B. 11	17° 00'	
+26.7	B. 10	12° 45'	Curve 45°
+16.7	Y.S. B. 9	8° 30' S.S.	Sub. tan 67.4
5+06.7	B. 8	4° 15'	P.I. 90° S = +10
+96.7	B. 7	B.C. 80° S = 27.4 W. of W.S. of 3 rd St	= 0+20
+76.7	B. 6		
+56.7	B. 5		
+36.7	B. 4		
4+18.	B. 3		
+96.7	B. 2		
+76.7	B. 1		
+56.7	B.T.	= 35' E.F.S. 2 nd St	
3+48.4 =		25' E.F.S. 2 nd St	

25
10
15
25
25
100

10
10
30

15
15
25
25
100

15
25
25

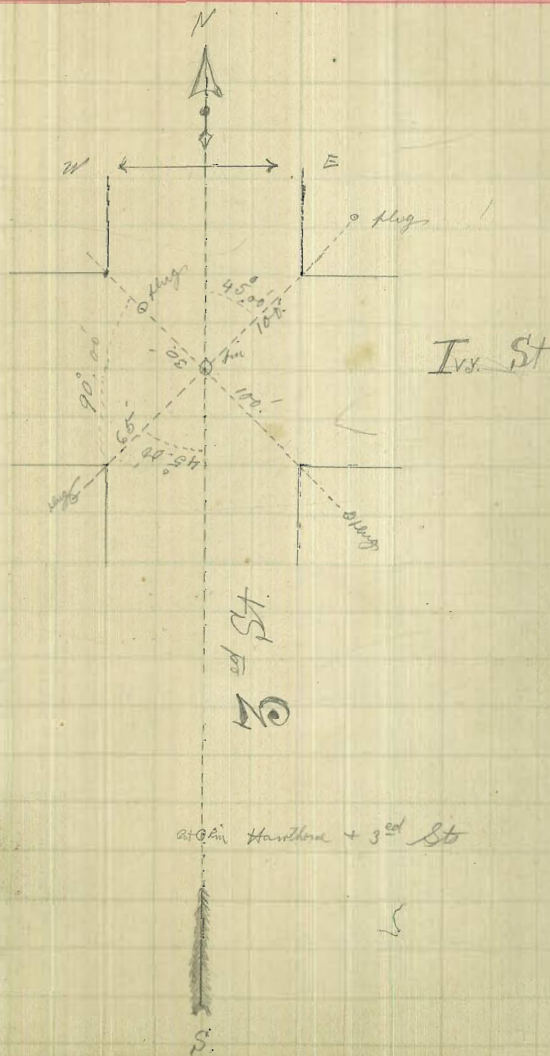
3rd St N of Hawthorn pipe on West on Center of St
Sta
plug on Cut 4 ft W

- +54
- +29
- 10+04
- +79
- +54
- +34
- 9+14
- +94
- +74.4
- +46.7 B.30
- +26.7 B.29
- +06.7 B.28
- +86.7 B.27
- +66.7 B.26
- +46.7 B.25
- +26.7 B.24
- 7+06.7 B.23
- +86.7 B.22
- +66.7 B.21
- +46.7 B.20
- 6+26.7 B.19

N. Le Jory St

S. Le Jory St

End of West



3^{col} St of Hawthorn

sta

-53.9

24.5

+29.4

12+04.4

+79.

+54

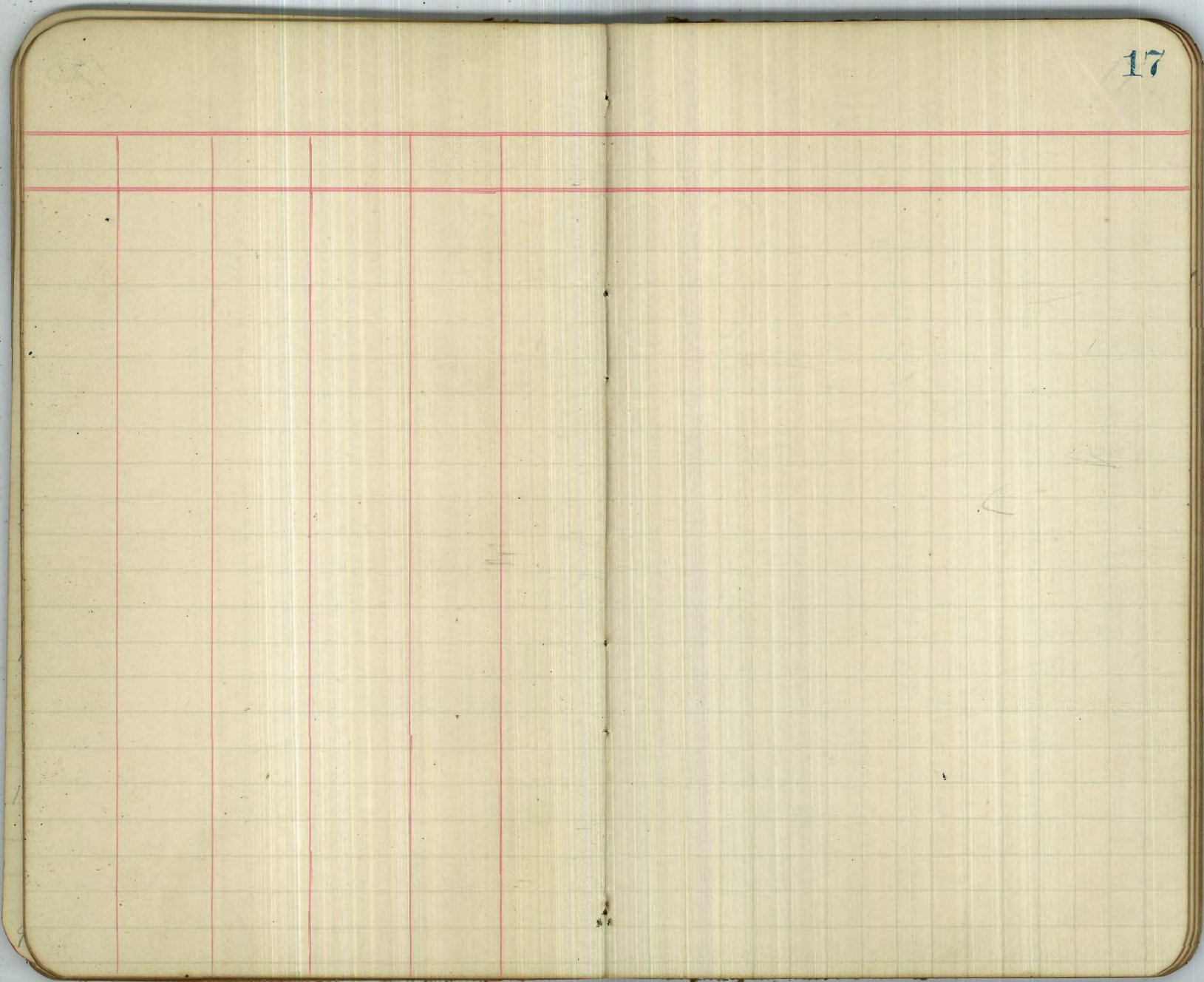
+27.

on side of low bar

11+04.4

10+79.4

S line Juniper = flush tank



3rd Sta S of Hawthorne Hgs on Curve on Centre line

Sta Hgs on tan S of Hawth 4th Sta

+60.7	N. L. Grafe = flush tank	
+37.9		
3+12.9		
+87.9		
+62.9		
+37.9		
2+12.9		
+87.9		
+62.9		
+37.9		
1+12.9	50' S. S. Hawthorne	
+87.3	31.05' P.T. 25.4 S. S. Lox Hawth	
+80.7	28.00'	
+70.6	24.00'	
+60.6	20.00'	
+50.6	16.00'	" dep 3° 05'
+40.6 end best	12.00'	sub chn 7.7
+30.6 B.4	8.00'	sub tan 4.3.2
+20.6 B.3	4.00'	P.T. 62.10
+10.6 B.2	B.C. 30° R. Curve 31° 05'	
0 B.1=B.1	Lon 2 nd Sta of Curve running, etc	

2^{ed} St. N. Hawthorn

Sta

+76.9:			
+61.6:			
+26.6:			
2+81.6:			
+76.9:			
+51.6:			
+26.6:		75 N.N. to Hawthorn	
+13.9	22° 30'	62.3 N.N. to Hawthorn	
+10	21.43' 12"		
+00	19.43' 12"		
+90	17° 43' 12"		
+80	15° 43' 12"		
+70	13° 43' 12"	sub dep 00° 46' 48"	
+60	11° 43' 12"	Sub Chn 3.9	
+50	9° 43' 12"	Curva 22° 30'	
+40	D.4 7° 43' 12"	sub dep 1° 43' 12"	
+30	B.3 5° 43' 12"	sub Chn 8.6	
+20	B.2 3° 43' 12"	sub tan 59.3	
+10.0	B.1 1.43' 12"	PT. 45° to	
+01.4	R.C. 4° 0' 0"		
0	Reg. Tract X. 3' 24" up W to 2 ^{ed} St on Hawthorn		

2nd St N of Hawthorne plug on
Sta

Cut 4 ft W of Centre

+32.8⁴ =

S. line Paniper = ~~4 ft W of Centre~~

25.7

7 + 06.6

+81.6

+56.6

+31.6⁴

6 + 06.6

+81.6

+56.6

+31.6⁴

0 + 06.6

+81.6

+56.6

+31.6

N. La Grange St

4 + 11.6

+91.6

+71.6

+51.6

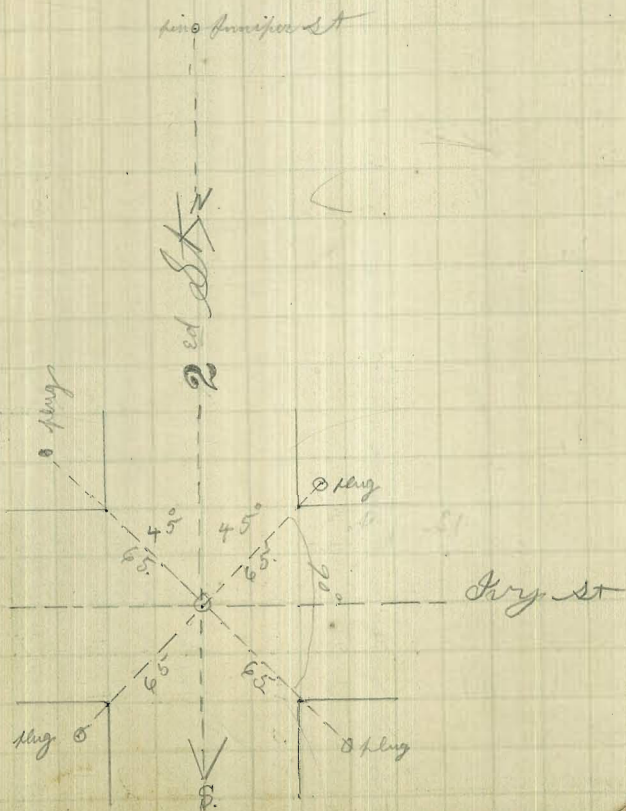
S. La Grange St

25

+26.6

3 + 01.6

For Continuation see pg 28



2^{ed} Sta South of Hawthorne

Trestle No 5

Sta

+20	B. 17		
2+00	B. 16		
+80	B. 15		
+60	B. 14		
+40	B. 13		
+20.0	B. 12		
+16.9		22 30 00 P.T. 64' S. S. L. Hawthorne	
+10	B. 11	21 07 12	
1+00	B. 10	19 07 12	
+90	B. 9	17 07 12	
+80	B. 8	15 07 12	
+70	B. 7	13 07 12	" dep 1° 22' 08"
+60	B. 6	11 07 12	Sub Chm 6.9
+50	B. 5	9 07 12	Curve 22° 30'
+40	B. 4	7 07 12	" dep 1° 01' 02"
+30	B. 3	5 07 12	Sub Chm 5.6
+20	B. 2	3 07 12	Sub tan 59.3
+10.0	B. 1	1 07 12	P.I. 45°
+04.4		P.C. 40° R	
0+00		Begin Trestle	
		W. U. L. 2 ^{ed} on Hawthorne	

2nd St S of Hawthorne

Sta

Trestle No 5

+ 532	K. L. Grafi St = flush tank
+ 28	275 S. S. L. Hawthorne
+ 20	End Trestle 267' S S L Hawthorne
3+00	B. 21
+ 80	B. 20
+ 60	B. 19
2+40	B. 18

II St E of 22nd St plumb line S of Centre
Sta

+92.5
+67.5
+42.5
3 +17.5
+92.5
+67.5
+42.5
2 +17.5
+92.5
+67.5
+42.5
1 +17.5
+92.5
+67.5
+55.7 67° 36'
+49.5 65°
+39.6 61°
+29.7 57°
+19.8 53°
+9.9 49°
0 = B.C. = S. 22' S of Centre

25 N.E.E.L. 22nd St
P.T. 13.2 E.E.L. 22nd St

I. St. E. of 22nd

Stn

+ 45.9 =
 28.4
 4 + 17.5

W. Le. 24th St = flush tank

20th St N of C. St

4 ft W of Centre, (as produced) 25

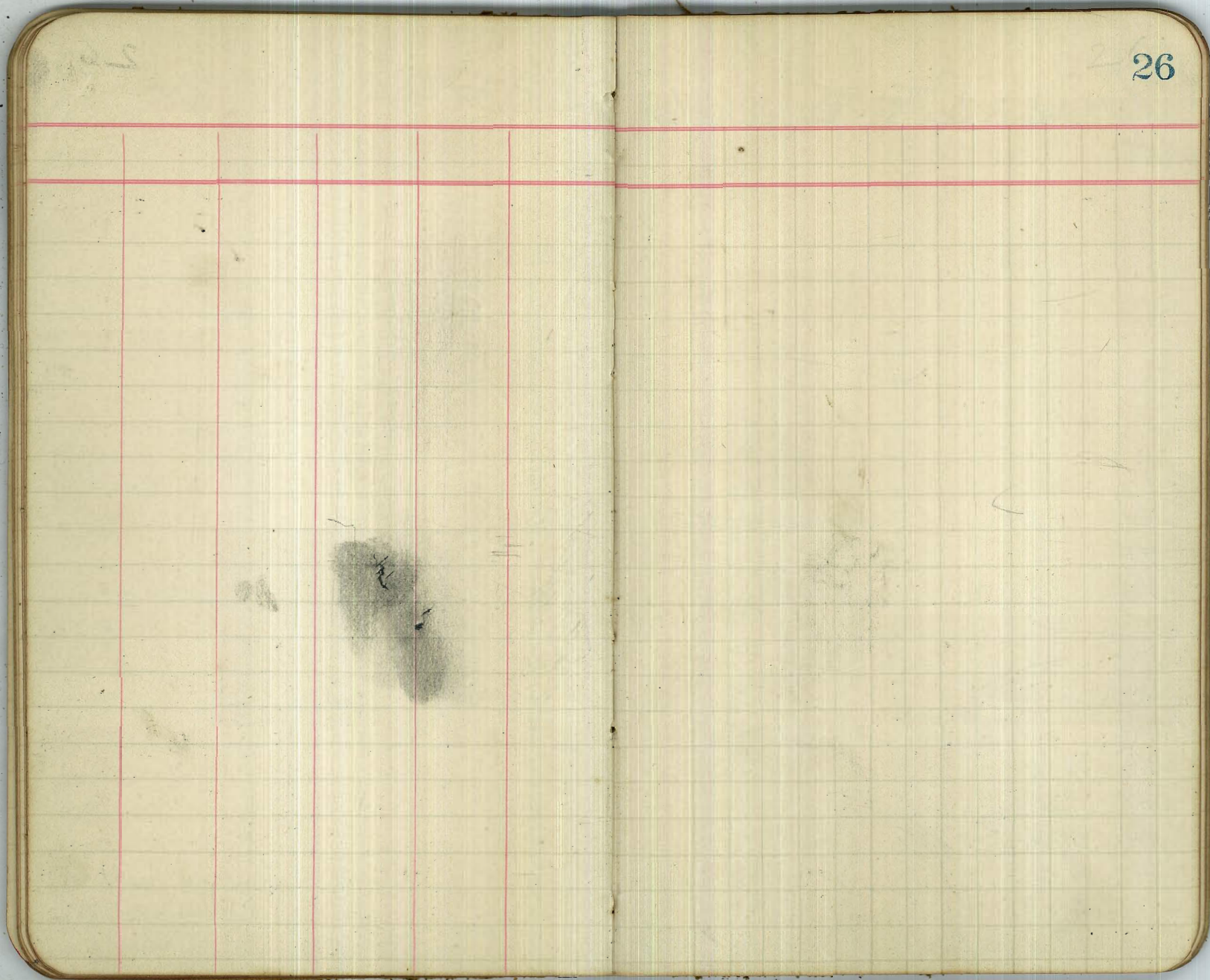
Sta

+42.3	cast to Barb Wire fence
2+17.3	foot of Hill
+92.3	
+67.3	
+42.3	top of Hill
1+17.3	
+92.3	
+67.3	
+55.6	25' N.N. to C. St
67.30	P.T. 13.4 N.N. to C. St
+47.64	
+39.661	
+29.757	
+19.853	
+09.949	
0	= P.C. = 22' W of Centre = 13.9 East of

Note! See 20th St S. of C. page 8 for explanation of Alignment

{ Flush tank on C. St at
 W. L. of 20th = 35.9 W of
 Centre of Street as produced

26



Union St S. of Ash
Sta.

plys 4 ft W of Centre

+68.6 135' E. S. of Ash St = Flush tank
 +78.6
 +53.6
 +28.6
 1+03.6
 +78.6
 +53.6 S. S. Ash St
 +48.6 45° 00'
 +40 37° 00'
 +30 = 27° 45'
 +20 = 18° 30'
 +10 = 9° 15'
 0 = Man Hole at W. S. Union St

P.T.

△

Sub Chm 8.6

Sub dep 8.00

Curve 45°

P.I. 90°

Sub tan 31.0

P.C. 185' R

△

2^{ed} St. N. of Hawthorne

28
Slugs 4 ft W of Centre

11 + 12.6 E. Lo of Kalmia St = Flush tank

+ 87.3

+ 62.0

+ 37.0

10 + 12.3

+ 87.0

+ 62.0

+ 37.0

9 + 12.3

+ 87.0

+ 62.0

+ 37.0

8 + 12.3

N. Lo Juniper St

+ 92.3

+ 72.3

7 + 52.3

Brought forward from pg 20

Columbia St S. of H. St

Sta

+30.1 = 80' S. S. E. of H. = flush tank
 +25.1
 1+00.1
 +75.1 = 25' S. S. E. of H. St
 +55.9 22° 30' 00" = 5.75 S. S. E. of H. St
 +50 20° 05' 10"
 +40 16° 04' 08"
 +30 12° 03' 06"
 +20 8° 02' 04"
 +10 4° 01' 02"
 0 = P.C. = 15.5 E. of W. L. of Columb

P.T. plugs from W. to E. Side of ditch at this pt.

P.I. 45.00' R

sub def

Sub Chn 5.9

Curve 22° 30'

sub def

P.C. 80.24' R

Sub Chn

Sub Tan 29.5

Alteration of Line

Sta

Brought ford from pg 6. + 7.

+42.4 = E to 14th St = flush tank =

4 + 17.3

+92.

+67.

+42.

3 + 17.3

+92.

+67.

+42.

2 + 17.3

2 + 92.1 Wedge of Bridge at Centre of ditch

+92.3 tacks in Bridge

+67.

+42.

1 + 17.3

+92.

+67.3 = 25' W W L 15th St = 9.0 S. of

0 + 56.3 = P.T. 14th St

on H. St W of 15th
From P.T.

30

up line at 14th St = 11.5 S. of St Centre

9.0 S. S rail of St car track

13th Sta N. of N. St pgs 4th W of St Centre

+92.7

+67.7

+42.7

1 +17.7

+92.7

+67.7

+55.7 67° 30' P.T. 25' N.N. Lo of N. St

+49.5 65°

+39.6 61°

+29.7 57°

+19.8 53°

+09.9 49°

0 = P.C. = S. 22' W of Centre

+67.3 25' N.N. Lo of N. St

+50.4 22° 30' 00" P.T. 8.1' N.N. Lo N. St

+40 17° 54' 00"

+30 13° 25' 30"

+20 8° 57' 00"

+10 4° 28' 30"

0 B.C. 89° 30' S. 20' W of Centre

13 Sta N of M St flgs 4 ft W of St Centre
Sta

7 + 22.9 = S. Lo of L. St = flush tank

+ 97.9

+ 72.9

+ 47.9

6 + 22.9 ✓

+ 97.9

+ 72.9

+ 47.9

5 + 22.9 ✓

+ 97.9

+ 72.9

+ 47.9

+ 22.9 =

N. Lo. of M. St

4 + 02.9

+ 82.9

+ 62.9

+ 42.9 =

S. Lo of M. St

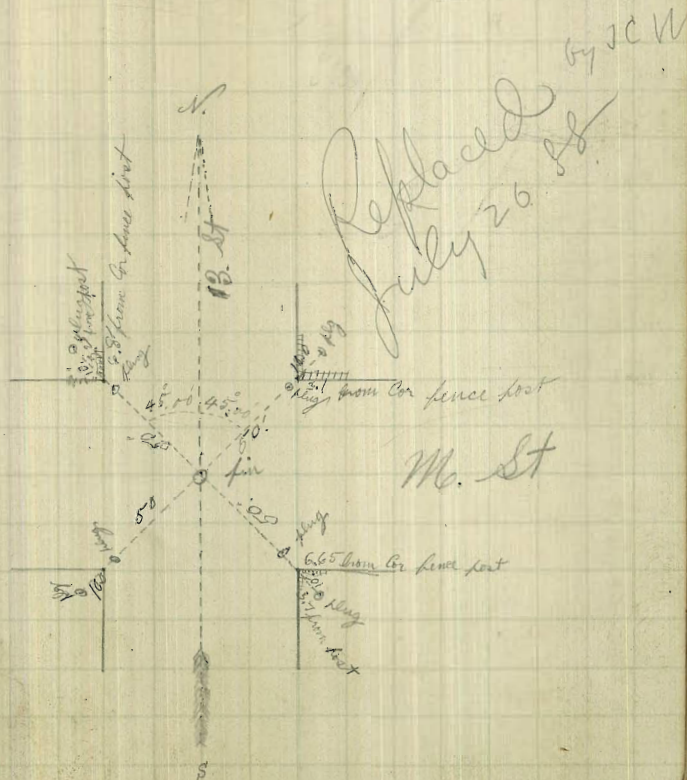
3 + 17.7

+ 92.7

+ 67.7

+ 42.7 ✓

2 + 17.7



Location of Sewer (Ply) line
of Ash plugs 4 ft E of
N. Lo of Ash) to N. Lo of

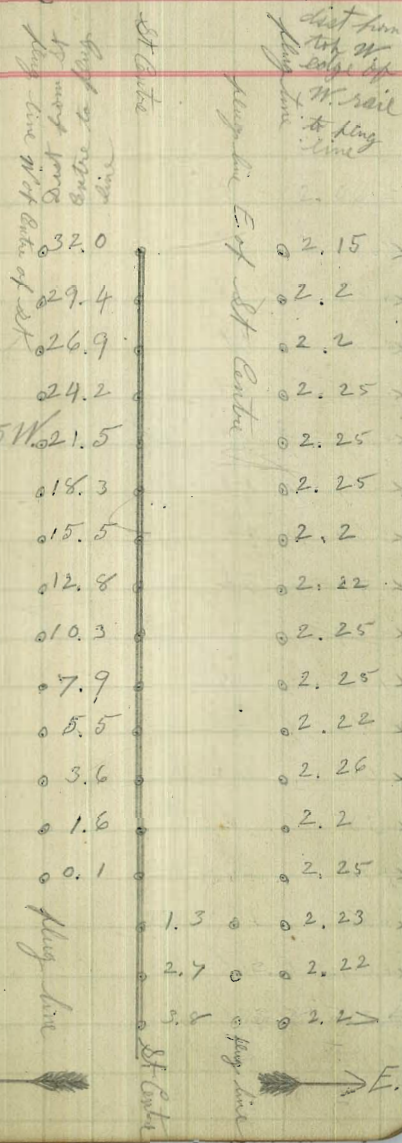
on California St N.
St Centre from (P. T. 15' of
Cedar St

33

Sta

+85	5° 25'	N. Lo Date (Centre ang. 9° 50' L)
+65	5° 16'	
+45	5° 08'	
+25	5° 00'	
11+05	4° 51'	S. Lo Date st - Inspection Hole
+77	4° 38'	
+52	4° 26'	
+27	4° 15'	
10+02	4° 04'	
+77	3° 52'	
+52	3° 39'	
+27	3° 28'	
9+02	3° 13'	
+77	3° 04'	
+52	2° 55'	
+27	2° 44'	

8+02 ang B.C. & B.L. on plug line N. Lo Cedar St



Location of Sewer (Plug) line on California St

N of Ash! plugs 4 ft E of Ditch

Sta			dist from St. entry to plug line	dist from edge of W. rail to plug line
+34	8° 43'		8.1	2.2
16+09	8° 32'		10.65	2.1
+84	8° 22'		13.35	2.21
+59	8° 11'		16.15	2.21
+34	8° 00'		19.1	2.21
15+09	7° 49'	N. of Fir st	22.15	2.21
+89	7° 41'		24.9	2.22
+69	7° 32'		27.5	2.22
+49	7° 22'		30.7	2.25
+29	7° 13'	E. of Fir st	32.95	2.22
14+10	7° 05'	(Centre Aug 10.21 Inspection Hole 36.95 W of Centre)	31.85	2.2
+85	6° 54'		31.2	2.18
+60	6° 42'		30.65	2.16
+35	6° 31'		30.3	2.15
13+10	6° 21'		30.3	2.18
+85	6° 10'		30.25	2.15
+60	5° 58'		30.4	2.12
+35	5° 48'		30.7	2.12
12+10	5° 36' do		31.2	2.06

W ←

dist from edge of W. rail to plug line

→ E

Location & ^{Line} Alignment N of Ash

Sta

29+16	35 S. S. of Juniper	Inspt. H.H.
26+51	N. of Ivy	
25+71	S. of Ivy	
22+71	N. of Hawthorn	
21+91	S. of Hawthorn	
+91	N. of Grape	
18+11	10° 02' S. of Grape St	
+84	9° 49'	
+59	9° 38'	
+34	9° 27'	
17+09	9° 16'	
+84	9° 05'	
16+59	8° 54'	

Note! California St Centre N of Ash was produced from centres on Ash, Date, d. line (for S. line) Grape and Ivy. Sta 10 per tie points on Page 46 in Book Marked TIE POINTS TO STREET CENTERS, SAN DIEGO, CAL. 1888. E.T.W.

on California St

flugs from S. of Grape St to 35 ft S. of S. of Juniper 4 ft E of St Centre

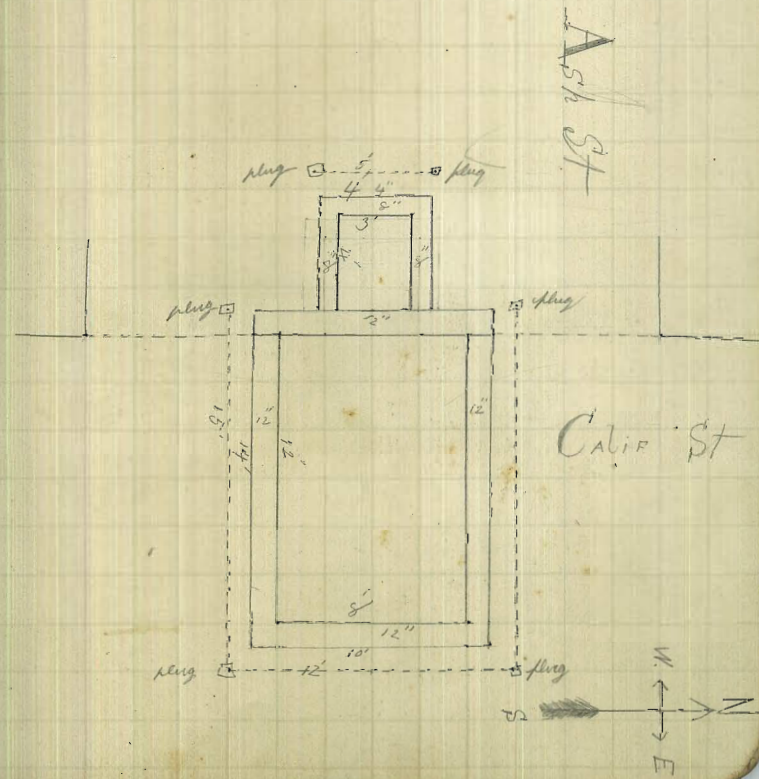
35

flugs line
St Centre line
flugs line
dist from W. edge of 11' and flugs line

W. ← → E.

Inspt H.H.	4.00	2.51
	2.95	2.24
	1.60	2.25
	0.05	2.2
	1.8	2.2
	3.7	2.2
	5.8	2.2

Wash Tank on Wash
and California Sts



Location of Sewer line Along Ge. St from 6th to 16th Sts 37

Sewer = 4 ft N. of plug line, and Plug line = 4 ft N. of St Centre

Sta	Sewer line	Plug line	St Centre line
50+02 = P.T. 10 ft E. E. line of 6 th St		24.0	
51+42 = 50 ft W. of W. line of 7 th St		04.0	
52+72 = E. L. of 7 th St		04.0	
53+22		03.95	
+47		03.95	
+72		03.95	
+97		03.95	
54+22		03.95	
+47		03.95	
+72 = W. L. of 8 th St		03.93	
+90 = Centre of Cover on Man Hole		8.2	
+92 =		03.95	
55+77 = 25' E. E. L. of 8 th St		03.90	
56+02		03.90	
+27		03.85	
+52		03.90	
+77		3.90	
57+02		3.90	
+27		3.93	

Location of Sewer line Along Le. St from 6th to 16th Sts

+62.5	
+37.5	
61+12.5 = E.L. of 10 th St	
+92.5	
+72.5	
+52.5	
+32.5 = W.L. of 10 th St	
60+07	
+82	
+57	
+32	
59+07	
+82	
+57	
+32 = 04 W of E L	
58+12	
+92	
+72	
57+52 = 04 W of W L of 9 th St	

Distance line	Height line	St. Grade line
	0 3.95	
	0 4.0	
	0 4.0	
	0 4.0	
	0 4.0	
	0 4.0	
	0 4.0	
	0 4.0	
	0 4.0	
	0 4.0	
	0 4.0	
	0 3.95	
	0 3.95	
	0 3.92	
	0 3.92	
	0 3.92	
	0 3.90	
	0 3.92	

Location of sewer line along Le St from 6th to 16th sts

Sta

66+21.0 = Centre of Man Hole Cover 28.5

+92.5

+67.5

+42.5

65+17.5

+92.5

+67.5

+42.5

64+17.5

+92.5 E. L. of 11th St

+72.5

+52.5

+32.5

63+12.5 W. L. of 11th St

+67.5

+62.5

+37.5

62+12.5

61+87.5

E of W. L. of 12th St and

6.0

03.05

03.05

03.15

03.25

03.35

03.40

03.40

03.55

03.60

03.62

03.60

03.80

03.80

03.90

03.95

04.0

03.95

04.0

Shower Line

King Line

St Center Line

Location of Sewer line Along L^o St from 6th to 16th Sts

Sta	Sewer line	Plug valve	St Centre line
72+23 = 29.0 E. from 14 th St Centre		○ 2.95	
+48 = 46.0 W from 14 th St Centre		○ 2.95	
71+23		○ 2.95	
+98		○ 3.00	
+73		○ 3.00	
70+48		○ 3.00	
+98		○ 3.00	
+73		○ 3.00	
69+48 = 34.5 E from 13 th St Centre		○ 3.00	
+73 = 40.5 W from 13 th St Centre		○ 3.12	
68+23		○ 3.25	
+73		○ 3.00	
+48		○ 3.06	
67+23		○ 3.00	
+98		○ 3.05	
66+73 E of 12 th St		○ 2.98	

Location of Sewer line along L. St from 6th to 16th Sts

Sta

79+03.7 = Centre of E. Cover = 4.9 W. of W. L. 16th St

+77.4 = Centre of middle Cover

+72.2 = Centre W. flush tank Cover

+48

78+23

+73

77+23

+98 = 30.0 E. from 15th St Centre

+55 = Centre Man Hole Cover

76+23 = 45.0 W. from 15th St Centre

+98

75+48

+98

74+48

+98

73+48

+98

72+48

Note! St Centre line produced from Sta 50+02 to Sta 79+03.7 with 7.0 offset pluge and Mon's on 6th 7th 8th 9th 10th 11th and 12th Sts, and St Centres at 13th + 14th Sts, which = an offset at 15th St of 7.6 and at 16th St of 9.05

St Centre line	King line	St Centre line
○	5.70	○
○	5.751	○
○	5.60	○
	○ 2.90	
	○ 2.90	
	○ 2.90	
	○ 2.95	
	○ 2.90	
○	6.3	○
	○ 2.95	
	○ 2.95	
	○ 2.95	
	○ 2.95	
	○ 2.95	
	○ 3.00	
	○ 2.95	
	○ 2.95	

Location of Sewer line Along 16th St Bet N and M. Sts

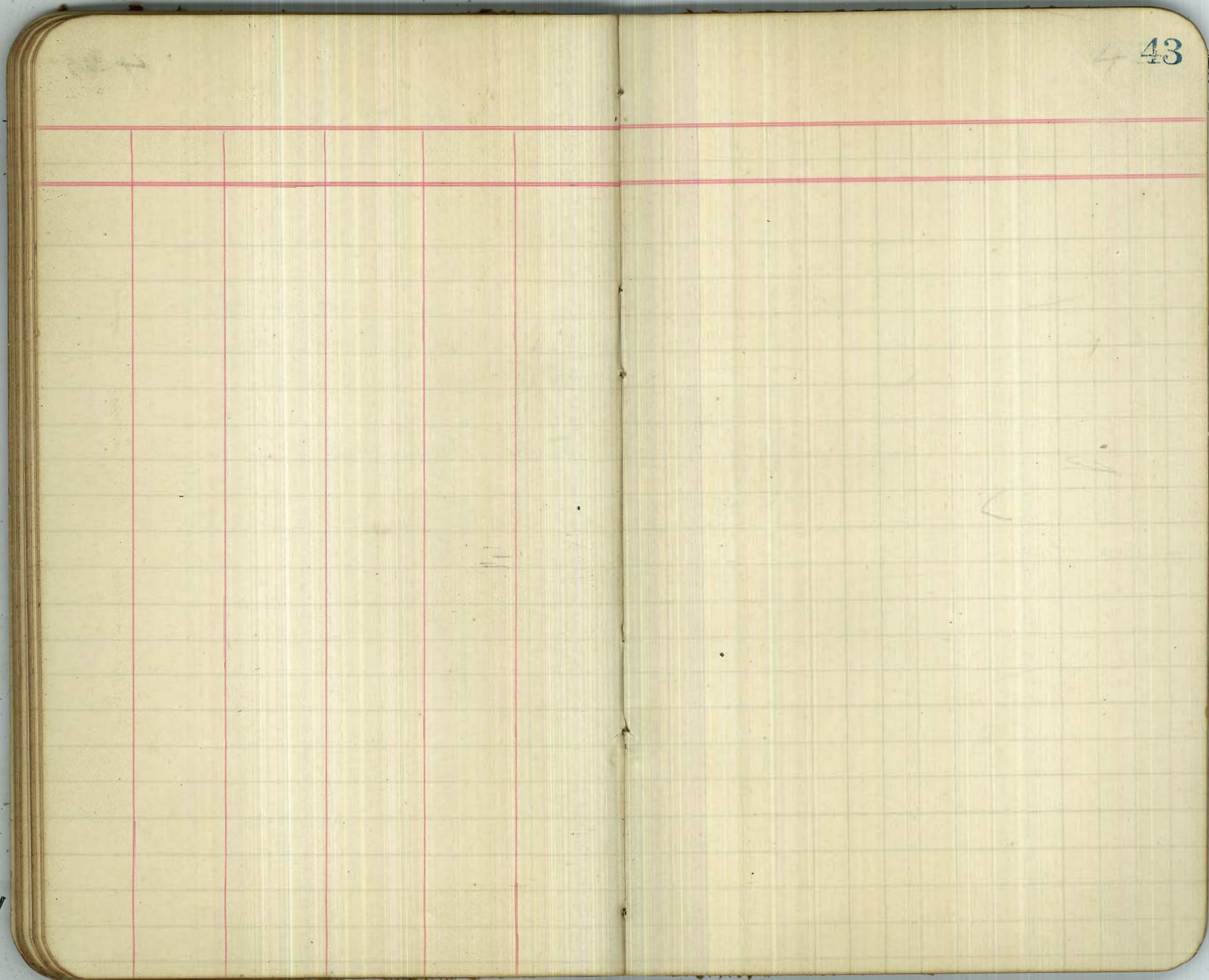
(No Stations found)

200 ft N from N line of N.
and = 3.9 W. of St Centre

St = lateral T running East
to Centre of main pipe

5.4 South of South line of
= Centre of flush tank Cover

M. St and 4.3 W. from St Centre



Alteration of Sewer line at foot of 8th St

Reset plugs on Ash St
 Sta plugs 4 ft N of St

W of California
 Centre

+96 = Man Hole Cover
 +92.7
 +85 = 15 ft E of E end of Atlantic St =
 +75
 +50
 +25
 1+00
 +75
 +50
 +25
 0 = W. end of Cal St

1+85 = 31+26 = P.T.

With 9.9 Chn and 4°00' def = 2.42424 per 0.10
 = 24.24240 per 1.0
 = 4° 02' 24" per 10.0

So
 0+00 = P.C. from $\sqrt{22}$ from Centre
 +10 = def 4° 02' 24" or 49° 02' 24"
 +20 = 8° 04' 48"
 +30 = 12° 07' 12"
 +40 = 16° 09' 36"
 +50 = 20° 12' 00"
 +55.75 = 22° 30' 00" or 67° 30'

Sub Chn 5.75
 " def 2° 18'

Flush Tapes Located:

- one on 20th St₂ at S. side of F. St₂ plugs 4 ft E + W of Centre
 1 on 20th St at N. side of F. St
 1 on 3rd St at N. " " Grape
 1 on 3rd " " S. side of Juniper
~~1 on 2nd St at S. side Juniper~~
 1 on II St 50 ft W of Centre of 24th St on W. property
 1 on Union St 135 ft S. S. E. Ash
 1 on 2nd St at S. E. Kalmia St

Index

Page	
1	20 th St N. of I. St
2	20 th St do do
3	20 th St " "
4	J. St W. of 15 th St
5	" " " " "
6	H. St W. of 15 th St
7	" " " " "
8	20 th S. of C. St
9	" " " " "
10	" " " " "
11	20 th St S. of II St
12	" " " " "
13	Hawthorne St E. of I st St
14	" " " " "
15	3 rd St N. of Hawthorne
16	" " " " "
17	" " " " "
18	3 rd St S. of Hawthorne
19	2 nd St N. of Hawthorne
20	" " " " "

Index Continued

Page	
21	2 nd St S. of Hawthorne
22	" " " " "
23	I St E. of 22 nd St
24	II St do do
25	20 th St N. of C. St
26	" " " " "
27	Union St S. of Ash St
28	2 nd St N. of Hawthorne Continued
29	Columbia St S. of H
30	Alteration of line on H St W. of 15 th
31	13 th St N. of N St
32	" " " " "
33	Location of plug line (sewer) on Cal St N. of Ash
34	do do
35	do do
36	Location of flush tank on California and Ash Sts
37	Water line on E. St from 6 th to 16 th
38	do do
39	do do
40	do do

Index Concluded

Page

- | | |
|----|--|
| 41 | Location of sewer line along L. St. from 6 th to 16 th |
| 42 | Location of sewer line on 16 th St bet. N. and M. St. |
| 43 | |
| 44 | |
| 45 | |
| 46 | reset plugs on Ash St W of Calif |
| 47 | |
| 48 | Location of flush tanks |
| 49 | Index |
| 50 | Index Concluded = |

157.25
 3.10
 142.35
 3.70
 141.77

145.50
 3.70

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

Degrees.	DEGREES.		¼ DEGREE.		¼ DEGREE.		¼ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	85
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	84
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	83
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	82
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	81
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	80
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	79
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	78
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	77
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	76
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	75
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	74
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	73
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	72
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	71
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	70
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	69
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	68
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	67
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	66
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	65
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	64
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	63
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	62
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	61
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	60
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	59
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	58
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	57
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	56
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	55
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	54
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	53
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	52
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	51
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	50
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	49
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	48
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	47
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	46
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	45
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	44
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	43
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	42
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	41
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
Degrees.	DEGREES.		¼ DEGREE.		¼ DEGREE.		¼ DEGREE.		Degrees.

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