

S.D.S.

San Diego
Leveage

9

1887-1888

TRANSIT

F.B. 718

718

Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

Minutes.	Lks.	Minutes.	Lks.	Minutes.	Lks.
1	2½	21	49	41	95½
2	4½	22	51½	42	98
3	7	23	53½	43	100½
4	9½	24	56	44	102½
5	11½	25	58½	45	105
6	14	26	60½	46	107½
7	16½	27	63	47	109½
8	18½	28	65½	48	112
9	21	29	67½	49	114½
10	23½	30	70	50	116½
11	25½	31	72½	51	119
12	28	32	74½	52	121½
13	30½	33	77	53	123½
14	32½	34	79½	54	126
15	35	35	81½	55	128½
16	37½	36	84	56	130½
17	40	37	86½	57	133
18	42	38	88½	58	135½
19	44½	39	91	59	137½
20	46½	40	93½	60	140

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Table for Running on Slopes.

In the following table the first column shows the angle, the second, the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

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

July 22/87 Rejected Pipes

Car No. 7768

6	6" Pipes	}	= 23. 6" Pipes 7. 6+4 y.
3	6+4" joints		
6	6" Pipes		
3	6" "		
6	6" "		
4	6+4" joints		
2	6" Pipes		

24	449 6" Pipes
18	73 6+4 y joints
192	6 6+6 y joints
24	
432	
9	
441 6"	47
8 0.6	56
449 6" Pipes	103

DRAW

Links to

Angle.

0
4
5
6
7
8
9
10

Entered
in Rept book July 23/87

Car No 4768

12	6" Pipes	} = 24 6" Pipes
1	6x4 jct	
15	6" Pipes	
2	6x6 jct	
		1.6x4 y
		2.6x6 y

Total Requested 50 6" Pipes ✓
 8 6x4 y ✓
~~2 6x6 y~~

449 201 6" Pipes
 2/3 19 6x4 y jct ✓

50 6" Pipes Condensed
 8 6x4 y ✓

Perfect Pipes received

650 6" Pipes ✓
 92 = 737 6x4 y jct ✓
 146 6x6 y ✓

Entered
in Rept book July 23/87

Car No 4872

2	6x6 y jct	} Total requested = 53.6" Pipes ✓
29	6" Pipes	
2	6x6 y jct	
1	6x4 do	
10	6" Pipes	
2	6x4 y jct	
4	6" Pipes	
1	6x4 y jct	
4	6" Pipes	
6	6" Pipes	
		4.6x6 y ✓
		4.6x4 y ✓

Perfect Pipes received

657 6" Pipes ✓
 14 6x6 y jct ✓
 96 6x4 y jct ✓
 14 do Condensed
 96 6x4 y
 4 do Condensed

Sold
Receipt book July 26 1887

Car No 7654

33
~~34~~

6' Pipes imperfect
1 6x6 y inches

Perfect Pipes received

667
~~669~~
16
100
6' Pipes
6x6 y inches
6x4 y inches

Sold in
Receipt book July 27 1887

Car No ~~7654~~ 8598

34
~~35~~

6' Pipes imperfect
1 6x4 y inches

Perfect Pipes received

~~574~~
~~577~~
13
92
6' Pipes
6x6 y inches
6x4 y inches

Entl
Rept book

July 28 1887

Car No 8598

3
4 1/2
6' Pipe imperfect

5 1/2
5 1/2
= 10 6' Imperfect
1 6' 4'

86 Perfect Pipe received

86
10 6' 4' of pipe

From July 27
574
86
660
6' Pipe

43 6' 6' 4'
92 6' 4' 4'
110 6' 4' 4'
102

Total 660
6' Imperfect Pipe
40 6' Pipe
102 6' 4'

Entl
Rept book July 29 1887

Car No 1909

1st load 95 6' Pipe good
13 5 1/2 6' Imperfect +
3 4' 6' of good
1 do Imperfect +

2nd load 34 6' Pipe good
3 6' Imperfect +
16 4' 6' of good
86 4' Pipe good
3 4' Imperfect +

3rd load 226 4' Pipe good
7 4' Imperfect +
4th load 145 4' Pipe good
35 4' Imperfect

Total 115 6' Pipe good
45 4' Pipe

19 4' 6' of
Total Imperfect
48 6' Pipe 1 4' 6' of
13
45 4' Pipe

August 1887

Entered in Receipt August 16th 1887

Car No 856 C.O.

Repects Pipes & fittings
Assigned by Harding & Co

from Clark & Sons Sacramento

548 6" Pipes

72 6+4 Sp

20 6+6 Sp

Aug 17 Car No 6416.
10, 1, 17, 5, 6" Pipes (15, 8, 5 = 61.
1, 5, 5, 6+4 Sp
2, 6-6 Sp

Imperfect Pipes

~~4 6 12 13 14 16 20 24 31 33~~

~~25 26 27 28 29 30 32 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100~~

~~2 2 6+4 2 (4)~~

~~X2 6+4 2~~

~~Total~~

~~94 6" Pipes~~

~~15 6+4 Sp~~

~~4 6+6 Sp~~

deducted from car no 6416.

{ 57 6" Pipes
1 6" Broken in transit

{ 11 6+4 Sp
2 6+4 Sp broken in transit

Gold
Reef 7th

August 19th 1887

Car No 2635 G. N. S. A.

from K. Clark & Sons Sacramento

534 6" Pipes

74 6+4 Up

20 6+6 Up

2 Sacks of Slippers

for 4" & 6" Pipe

Imperfect Pipes

42 6" Pipes (17 broken in transit)

11 6+4 up

Gold
Reef 7th

August 17th 1887

Car No 6416 S. P. R.

from Gladding, McBean & Co

606 6" Straight Pipes

85 6+4 Up

9 6+6 Up

Imperfect Pipes

94 6" Straight Pipes

(12 broken in transit)

15 6+4 Up

(1 broken in transit)

4 6+6 Up

Entire
Rept
August 19th 1887

Car no 314

from N Clarke for Sacramento

484 6. Pipes
68 6-4 sp
10 6-6 sp

Imperfect Pipes

116 6. Pipes (3 broken in transit)
12 6-4 sp
1 6-6 sp

Entire
Rept
Aug 23rd 1887

Car no 4056

from N Clarke for Sacramento

456 6. Pipes
70 6-4 sp
18 6-6 sp
120 Cores for Con

Imperfect Pipes

104 6. Pipes (2 broken in transit)
5 6-4 sp
2 6-6 sp

Aug 23rd 1887

defective Pipes

- 1 box of 4 Clarks
- 2 6" Open Clarks
- 1 6" Pipes Clarks
- 9 6" Pipes Clarks
- 3 6" Pipes Clarks
- 15 6" Pipes 1 6" + 4 of
- deducted from Car No 85
- ✓ 15 6" Pipes (Gladding)
- ret'd from defectives
- deducted from Car No 4856

Rec'd 60 August 25 1887

Car No 4856 J P

from Gladding McLean & Co

(400) 415 6" Pipes
 59 6" + 4" Pipes

Imperfect Pipes

- + 40 6" Pipes (broken in transit)
- 6 6" + 4" Pipes
- + 15 6" Pipes ret'd for Defectives
- = 35 6" Pipes
- 6 6" + 4" Pipes

Sept 10th 1887
Sept 11th 1887
August 26th 1887

Car No 5712

from Gladding McBean & Co

652 6" Pipes
94 6x4 up

Imperfect Pipes

48 6" Pipes
6 6x4 up

Sept 11th 1887
Sept 12th 1887
August 31st 1887

Car No 63

from Clark & Son

510 (525) 6" Pipes
(32) (33) 6x4 up
17 6x4 up

Imperfect Pipes

15, 33 = 78, 6" Pipes, (1 broken in transit)
3 6x4 up (1 broken in transit)
1 6x4 up

Entered
on Receipt
August 30th 1887

Car No 687 1/2

from Clark & sons

554 6 - Pipes
18 6 - 6 - yps
70 Caps

Imperfect Pipes

41 6 - Pipes (broken in transit)
2 6 - 6 - yps (1 broken in transit)

Entered
on Receipt
August 31st 1887

Car No 7083

from Gladding, McBean & Co

~~787~~ 787 6 - Pipes
112 ~~44~~ 6 + 4 yps

Imperfect Pipes

18 6 - Pipes (broken)
3 6 + 4 yps

September 1887

Imperfect & Broken Pipes

6 6 Pipes Clarke

6 + 4 Yp gladding broken
1 6 6 Yp broken
ded. from Car No 1306

1 6 Pipe Clarke

Sept 9th 1887

Car No 1306 SP

from Gladding, McBean & Co

958 4' Pipes
88 6' Straight Pipes
45 6-6 Yp
10 6-4 Yp

Imperfect

42 4' Straight Pipes (4 broken)
14 6' (10 broken)
5 6x6 Yp (2 broken)
5 6x3 Yp (4 broken)

Sold
Recd
Sept 20th 1887

Car No 3458

from Gladding, McBeant & Co

528 8" Pipes

40 8+4 sp

16 8+8 sp

Imperfect Pipes

12 8" Pipes

3 8+8 sp

Sold
Recd
Sept 21st 1887

Car No 6622

from Gladding, McBeant & Co

524 8" Pipes

40 8+4 sp

14 8+8 sp

Imperfect Pipes

11 8" Pipes

2 8+8 sp

Sold
Repl
Sept 21st 1887

Car No 4137

from Gladding, McBean & Co

- 524 8' Pipes
65 8+4 Sp

Imperfect Pipes

13 8' Pipes
5 8+4 Sp

Sold
Repl
Sept 28th 1887

Car No 4444

from Gladding, McBean & Co

457 6' Pipes
198 6+4 Sp

Imperfect Pipes

7 6' Pipes
2 6+4 Sp

Encl
Ref

Sept 30th 1887

Car No 3008

581
134

6. Paper
6+4 sp
Clarkson

Imperfect Paper

13 . 6 . Paper
8 . 6+4 . sp

Encl
Ref

Oct 1st 1887

Car No 8200

from Gidding M^cBeane & Co

576 6. Paper
99 6+4 sp

Imperfect Paper

23 6. Paper
1 6+4 sp

Ente
Rehls

Oct 3rd 1886

Car No 1886

563 6 Pipes Clerk
87 6-4 sp

Imperfect Pipes

37 6 Pipes
3 6-4 sp

Ente
Rehls

Oct 3rd 1886

Car No 1556

from Clerk sp
554 6 Pipes
96 6-4 sp

Imperfect Pipes

46 6 Pipes
3 6-4 sp

Sold
Repl'd
Oct 11th 1887

Car No 833

from Gladding, McBean & Co

444 8' Pipes
88 8+4 sp
2 866 reducers

Imperfect Pipes

6 8' Pipes
2 8+4 sp

Sold
Repl'd
Oct 12 1887

Car No 7634

602 6' Pipe Clark & Sons
28 6+6 sp
18 6+4 sp

Imperfect Pipes

80 6' Pipe
2 6+4 sp

Counted ^{Wh} Oct 13 1887

Reft Car No 627 CP

from Gladding Mc Bean & Co

640 6 Pipes

60 60 40

Imperfect Pipes

8 6 Pipes

Counted ^{Wh} Oct 13 1887

Reft Car No 3574

from Gladding Mc Bean & Co

534

8 Pipes

70

8+4 Pipes

Imperfect Pipes

11 8 Pipes

Extra
Ref

Oct 14 1887

Car No 1887

from Gladding McLean Co

402 6 Pipes
10 6+6 sp

Imperfect Pipes

10 6 Pipes

Extra
Ref

Oct 11 87

Car No 1021

from Gladding McLean Co

537 8 Pipes
88 8+4 sp

Imperfect Pipes

3 8 Pipes
2 8+4 sp

Entered
Rept. 1889

Oct 14 89

Car No 2004

from Clark & Sons

580 6 Pipes
89 6 1/2 Up

Imperfect Pipes

20 6 Pipes
11 6 1/2 Up

Entered
Rept. 1889

Oct 21 1889

Car No 2005

from Gladding, McBean & Co

664 6 Pipes
117 6 1/2 Up

Imperfect Pipes

6 6 Pipes

Sold
Repld
Oct 21 87

from Coronado Beach Co

174 10' Pipes

(5 Imperfect) broken

Sold
Repld
Oct 25 87

Car No 2567

from Gladstone McLean & Co

681 6 Pipes
123 6" up
8 6-6 Imp up

Imperfect Pipes

19 6' Pipes
3 6" up

Ents
Repl bks

Act 21 87
Car No 2612

642 6. Pipes Glassing 56
171 672 Cp

Imperfect Pipes

4 6. Pipes

Ents
Repl bks

Act 26 87
Car No 6372

576 6. Pipes Clark open
14 676 Cp
46 672 Cp

Imperfect Pipes

22 6. Pipes
1 676 Cp
4 672 Cp

Entl
Repl

Oct 27 87

Car No 6868

545 6" Pipes Gladning & Co
87 6 7/8" ap
10 8+8 ap
14 8+8 Reverse

Imperfect Pipes

5 6" Pipes

Entl
Repl

Oct 28 87

Car No 2074

from Clark & Jones

578 6" Pipes
100 6 1/2" ap

Imperfect Pipes

2 6" Pipes

Gold
Replth Nov 2/84

Car No 576 SP

from Gladding, McBean & Co

576 6 Straight Pipes
116 6+4 sp

Imperfect Pipes

~~9~~ 9 6 Straight Pipes
1 6+4 sp

Gold
Replth Nov 4/84

Car No 4478

from Clark & son

580 6 Straight Pipes
99 6+4 sp
9 6+6 Reverse
10 6+6 Converse

Imperfect Pipes

14 6 Straight
1 6+6 Reverse
1 6+4 sp

Sold
Revised

Nov 10 87

Car No 4364

632 6 Pipe Gladding
114 6+2 sp

Imperfect Pipes

2 6 Pipe
7 6+2 sp

Sold
Revised

Nov 10 87

Car No 754

404 8 Pipes Clarks
67 8+2 sp

Imperfect Pipes

16 8^c Pipes
3 8+2 sp

Gold
Refr. Nov 11 87

Car No 4734

from Clark & Sons

363 8 Pipes
66 8+2 Up

Imperfect Pipes

374 8 Pipes
14 8+2 Up

Gold
Refr. Nov 13 87

Car No 4190

from Clark & Sons

572 ~~582~~ 6 Pipes
97 6+2 Up

Imperfect Pipes

18 6 Pipes
3 6+2 Up

Entl
Recklth Nov 19 87

Car No 9044

from Gladding McBean & Co

561 ~~1881~~ 6 Pipes
353 6 or 8 sp

Imperfect Pipes

11 6 Pipes
16 6+4 sp

Entl
Recklth Nov 21 87

Car No 1394

from Clark & Sons

524 6 Pipes
97 6+4 sp
10 pro 6+6 sp
10 8+8 sp res
8 8+8 sp Con

Imperfect Pipes

23 6 Pipes
3 6 or 4 sp

End
Red Ink

Nov 2 87

Car No 3080

from Gladling McBean & Co

268 6 Pipes

30 6-6 up

30 6-6 reverse

12 6-6 up

Imperfect Pipes

10 6 Pipes

End
Red Ink

Nov 26 87

Car No 7000

from Gladling McBean

697 6 Pipes

108 6-4 up

9 6-6 up reverse

Imperfect Pipes

12 6 Pipes

End
Repl
Nov 28 87

Car No 1762

158 18th Light Pipes
from Gladding McBean

Imperfect Pipes

3 18th Light Pipes

End
Repl
Nov 29 87

Car No 10136

from Gladding McBean

65 2nd Light Pipes

8 2nd 4th sp

2 2nd 8th

152 6 Light Pipes

Imperfect Pipes

5 2nd Light Pipes

Encl
Repl
Sec 5. 87

Car No 944

595 6' Straight Pipe Gadding
76 6' u 2 1/2'
9 6' u 1 1/2'

Imperfect Pipe

14 6' Straight Pipe
13 6' u 1/2'

Encl
Repl
Sec 5 87

Sec 5 87

Car No 684

64 2 1/2" Pipe Gadding
114 6' Pipe

Imperfect Pipe

16 2 1/2" Pipe
3 6' Pipe

Entered
Reckless Dec 5 87

Car no 1484

from Gladding McBean

53 6" Pipe

55 6+4 y

2 6+6 y

20 6+6 reverse

- Imperfect Pipe

2 6" Pipe

Entered
Reckless Dec 3. 87

Car no 1482

from Gladding McBean

138 18" Pipe

8 18+4 Cp

2 18+6 Cp

2 18+10 Cp

8 4 Slapper

2 6 "

2 10 "

Imperfect Pipes

11 18" Pipes

Contd
22/11/44 Dec 4 87

Car No 11324

from Bladding McBean

39 21 Pipes
39 24+4 4
118 6 Pipes

Imperfect Pipes

11 21 Pipes (wholen & fragments)
1 24+4 4 Crashed

Contd
22/11/44 Dec 4 87

Car No #87 3119

from Bladding McBean

45 24 Pipes
96 6 Pipes
12 6+4

Imperfect Pipes

5 21 Pipes 1 broken in fragments

Entire
Repl. Dec 27 87

car no 7553

from Bladding McBean

160 18" Pipes

Imperfect Pipes

- 4 18" Pipes

Entire
Repl. Dec 27 87

car no 6576

from Bladding McBean

570 6" Pipe
108 6" + 4" Cp

Encl
Rept

Dec 8. 87

Car No 3066

from Bladking McBean & Co

571 8 Pipes
5 874 up
87 874 up

Imperfect Pipes

13 8 Pipes
3 874 up

Encl
Rept

Dec 8. 87

Car No 5042

from Clark & Sons

546 6 Pipes
48 674 up
23 674 up
24 674 reverse

Imperfect Pipes

4 6 Pipes
2 674 up
1 674 reverse

Extra
Rept. Wk

Dec 12 87

Car No 4866

from Gladney, McLean Co

567 6" Pipe
108 6" 4" Sp

Imperfect Pipes

3 6" Pipe

Extra
Rept. Wk

Dec 15 87

Car No 1608

from Clark & Sons

579 6" Pipe
97 6" 4" Sp

Imperfect Pipes

21 6" Pipe
3 6" 4" Sp

Weld
Rehld bh

Dec 15 87

Car No 1784

64	2 1/2"	Pipes	(Gladding McBean)
6	2 1/2 + 6	sp	
96	6'	Pipes	
15	8 + 6	sp	

Imperfect Pipes

8	2 1/2"	Pipes (broken)
2	2 1/2 + 6	sp
4	6'	Pipes

Weld
Rehld bh

Dec 17 87

Car No 4588

from Gladding McBean & Co

60	8'	Pipes
93	8 + 4	sp

(40 Pipes short)

Imperfect Pipes

6	8'	Pipes
2	8 + 4	sp

Small
Reh
Dec 20 87
Car No 6870

from Clark & Sons

552 6 Pipes
75 6 1/2 Up
78 6 1/2 Up

Imperfect Pipes

16 6 Pipes broken

Small
Reh
Dec 20 87
Car No 1700

from Gladding, McLean

173 2 1/2 Pipes
108 6 Pipes

Imperfect Pipes

7 2 1/2 Pipes 1 broken in payment

into
Rehlah Dec 21 89

Car No 9476

from Clark spms
402 8 Pipe
74 8+4 sp

Imperfect Pipe

11 8 Pipe
1 8+4 sp

into
Rehlah Dec 22 89

Car No 10208

from Gladding McLean

46 7i Pipe
24 2+4 y
32 6 Pipe
4 8+8 Reverse
9 8+8 y
2 18 1/2 Pipes staff

Imperfect Pipe

12 7i Pipe
1 2+4 y

Good
Red
Dec 25 87
Car No 8884 DP

from Gladney McBean

87 24 Pipe
+56 6 Pipe
5 8x8 y
2 8+8 reverse
16 8+6 up

Imperfect Pipe

12 24 Pipe broken joints

Good
Red
Dec 26 87
Car per "Wilmington"

from Roney Bros & Co

448 15 Pipe
58 15+4 up

Imperfect Pipes

2 15 Pipe
2 15+4 up

End
Rehl
Wed Dec 26 87
Car no 8884 DP

from Bladney McBean

87 21 Pipe
156 6 Pipe
5 8x8 2
2 8+8 reverse
16 8+6 up

Imperfect Pipe

12 21 Pipe broken fragments

End
Rehl
Wed Dec 26 87
Car per "Wilmington"

from Racy Bros & Co

448 15 Pipe
58 15+4 up

Imperfect Pipes

72 15 Pipe
2 15+4 up

ms
Reh... 27 87

Car No 297

from Gladding McBean

600	6	Paper
185	6+4	ap
4	12+4	"

ms
Reh... Dec 27 87

Car No 1100

from Gladding McBean

198	13	Paper
124	6	"
20	6+4	ap
23	1/2 24	Paper

Imperfect Pps

2	12	Paper
1	6	"

Emil
Rept

Dec 27 87

Car No 4378

from Gladding McBean & Co

528	8	Pipe
121	8+4	sp
41	6+4	sp

Emil
Rept to Dec 29 87

Car No 1798

from Calumet & Iron

87	24	Pipe
15	24+4	sp
144	6	Pipe
9	6+6	sp
10	6+6	same

Imperfect Pipe

4	24	Pipe
1	6	Pipe
1	6+6	sp

Gold
Repl
M Dec 24 87
Car No 3820

from Clark & Sons

26 m Pipe
7 m + u y
349 l Pipe
43 l + u y
10 l + b y
10 l + b reverse

Imperfect Pipe

2 m Pipe
1 l Pipe

Gold
Repl
M Dec 24 87
Car No 9174

from Clark & Sons

46 m Pipe
2 m + u y
271 l Pipe
20 l + u y
10 l + b y
10 l + b reverse

Imperfect Pipe

2 m Pipe
4 l Pipe

Auto Repair Dec 29 87

Car No 4710

from Gladding McBeant Co

302 299 12 Pipes
23 12+4 of
1 12+6
1 12+8
3 12+12

Imperfect Pipes

25 12 Pipes
2 12+4 of

Auto Repair Dec 29 87

Mr. Wilmington

from Tracy Bros & Co

372 15 Pipes
58 15+4 of

Imperfect Pipes

6 15 Pipes
2 15+4 of

1888
Sold
Repl. Co. dancy 1st 1888
Car No 3082

from 4 black & pms

4 7 2 1/2" Pipe
8 2 1/2 6 of
8 2 1/2 6 of

Imperfect Pipe

4 2 1/2" Pipe broken
1 2 1/2 6 of

1889
Sold
Repl. Co. dancy 4. 89
Car No 3091

from Gladding McBeant Co

4 9 2 6" Pipe
23 6 1/2 6 of

Imperfect Pipe

1 6" Pipe broken

Endo
Replth Sun 9 88

Car No 4420

from N. Black + few

98 10 Papi
170 8 Papi
~~187 14~~ 6 Papi
20 10 + u Y
37 8 + u Y

Imperfect Papi

2 10 Papi
5 8 Papi
5 6 Papi
3 8 + u Y

Endo
Replth Sun 9 88

Car No 2040

from Gladding McBeand Co

635 6 Papi
34 6 + u Y
65
335
330 660
(325 pes
loaned to Coronado
Beach Inn)

Imperfect Papi

2 6 Papi

Gold
Reel bk Jan 11 87

Car No 3091

from Gladding McLean Co

545- 6' Pipe

111 6' 6" up reverse

Imperfect Pipe

2 6' Pipe

Gold
Reel bk

Jan 11 87

Car No 142

from Gladding McLean

576 6' Pipe

72 6' 6" reverse

66 6' 6" direct

Imperfect Pipe

3 6' Pipe

Ents
Repl lts Jan 19 87
per W Elder

490 10' Pipe
35 18' Pipe
243 6+4 y
957 6 Pipe

Imperfect Pipe

9 10' Pipe
10 6+4 y
49 6 Pipes

Ents
Repl lts Jan 19 87
Car No 4206

41 2' Pipes
166 6 Pipe
3 24+4 y
3 12+4 y
1 18 6 12 reducer
1 12 6 8 reducer

Imperfect Pipe

6 2' Pipe broken
1 6 pipe
1 12+4 y

Ents
Repl lts Jan 21 Car No 6876
from Gladding McLean

597 6 Pipes
111 6+8 y.

into
Repl^{ts} Jan 21 88

Car No 59

from N. Clark & Son

578 6' Pipe
100 6' u y

Imperfect Pipe

22 6' Pipe

into
Repl^{ts} Jan 21 Car No 2691
from Gladding McLean

280 10' Pipe
59 10' u y
1 10' b y
1 10' r y

Imperfect

14 10' Pipe
1 10' u y

Imperfect Pipes

Delivered to Mr S. S. Buck

Dec 10th 87

33 6' Pipes Gladding

14 6' " Clarks

Advised J. F. J. Plazan Dec 10. 87

Dec 13

17 6' Pipe Clarks

562 hrs

Dec 15

4 1/2 4' Pipes Gladding

5 6' " Gladding

4 6' " Clarks

Advised J. F. J. Plazan Dec 15. 87

Dec 17

3 6' Pipe Gladding

24 6' " Clarks

Advised J. F. J. Plazan Dec 17. 87

Dec 20

41 pipes 4' Pipe

Advised Dec 23. 87

Apr 4th 88

20 pipes 6' Pipe Advised Apr 4. 88

Imperfect Pipes
 a/c to Mr Buck

Nov 14. 87
 104 8" Straight Pipe ⁵⁷ ~~57~~ EMB
 5 8" " ⁵³ ~~53~~ Clarks
 Nov 22 87
 39 6" Straight Pipes G. McKeon
 Nov 26 87
 30 6" Straight Pipes G. McKeon
 20 6" " Clarks

advised

J. J. Sewer Pipe Assn Nov 26. 87.

~~Nov 15~~ 15 6" Mkt Pipes Clarks
 300 6" " Gladding

advised

J. J. Pass Dec 3 87

Dec 3
 24 6" Pipes McKeon
 49 6" Pipes Clarks

Dec 5

12 6" Pipes Gladding
 6 6" Pipes Clarks

Advised J. J. Pass Dec 5. 87.

Imperfect Pipes a/c to Mr Buck
 July 28/87

104 6" Pipes Gladding
 13 6+4 " "
 6 6+6 " "

Aug 23

123 6" Pipes Clarks

Aug 24

122 6" Pipes "

98 6" Pipes "

23 6" Pipes Gladding

46 4" Pipes "

8 4" " per Buck

41 6+4 " Clarks

3 6+6 " "

18 6+2 " Gladding

3 6+4 " "

116 6" Pipes "

95 6" Pipes "

Pipes returned
from Dutch

4th Nov 16 89
Open trap 6 or 6 up Good

front 11 6' Pipes broken Nov 18 89

7th 11 6+4 up Good Nov 22 89

N. D. 11 6+4 up Good Nov 30

8 8+8 up good

2 8+4 up good

4 8+8" Skirt Pipe

1 8+8" up Pipe broken

1 8+11 up broken

7 8+6 up

N. D. Dec 2
1 pie 6" Pipe fladling

1 pie 6" Clark

State D. Dec 6
8 6+6 up

10th 7 6' Pipe broken 26 Pipes good

12 6+6 up good 2 6+6 had

Pipes rejected & reslected
from J.S. Yard Sept 187

1 6 6+4 up Clarks

5 6 6+4 up fladling

6 6 6+4 up fladling

6 6 6+4 up fladling

from Bucks Yard

25 6+4 up Clarks

5 6+4 up fladling

26 Clarks advised J.S. P. Assn

23 fladling Sep 30 89

End Rept Oct 6 89

71 6' Pipes fladling

72 6' Pipes Clarks

72 6' Pipes Clarks

285
570 11

End Rept
Book advised
J.S. P. Assn
Oct 12 89.

Retns from Dutch

4th St

Oct 1877

27 6 Pipes
 3 6+4 up
 2 6+6 up
 1 6 Pipes

9th

10 6 Pipes
 11 6+6 up
 12 6+4 up

11th

11 6 Pipes
 1 6+4 up

~~Oct~~ Nov 1/87

5th 10 8 Pipes food
 7 8 broken
 1 8+4 2 food
 1 8+4 2 broken
 4 8+8 up food
 2 8

Retns from Dutch

9th Street

Oct 15 87

Good

4 6+6 up
 7 6+6 Reverse
 20 6 Pipes

Bad

6 6 Pipes
 1 6+6 up

4th St

Oct 20

18 6+4 up good
 4 6+6 up
 1 6 Pipes
 5 6 Broken

Union

5 6 Pipes broken Nov 14 87

Fifth

10 6+6 deep up good
 12 6+4 up "

Aug 21/89. Pipes retred from Dutch

21	6'	2nd St	Gladwin
22	6'	2nd St	"
23	11'	2nd St	"

Aug 24

25	6'	Pipe	Gladwin
26	6+4	sp	"
27	4'	Pipe	"
28	6'	Pipe	Clarke

Sept 19

5	6+4	sp	Clarke
6	6	Pipe	"

Oct

8	15	6' Pipe	
	2	6+6	sp
	3	6+7	sp

2
2
2

2
2
20

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	81
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	81
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	81
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	81
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	81
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	81
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	81
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	81
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	79
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	79
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	79
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	79
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	79
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	79
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	79
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	79
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	79
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	68
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	68
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	68
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	68
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	45.17	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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