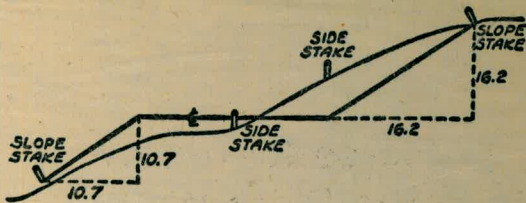


W

942





DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING  
SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

Please Return to  
City of San Diego Water Dept.  
Room 903 Civic Center



TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

FOR TANGENTS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.49	.58	.67	.75	.83	.90	.99	1.06	1.14
30°	.10	.19	.29	.39	.49	.59	.69	.79	.89	.99	1.09	1.20	1.29	1.39
35°	.11	.22	.34	.47	.58	.69	.79	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	.15	.30	.44	.60	.76	.91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	.17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	.19	.38	.57	.76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	.42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	.23	.46	.69	.93	1.16	1.40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	.25	.51	.76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	.30	.61	.91	1.22	1.53	1.84	2.15	2.46	2.78	3.10	3.44	3.78	4.12	4.46
85°	.33	.66	1.00	1.33	1.68	2.02	2.36	2.70	3.05	3.40	3.77	4.14	4.55	4.89
90°	.36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	.39	.79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	.43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	.51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4.76	5.31	5.86	6.43	7.01	7.60
120°	.62	1.25	1.93	2.52	3.16	3.81	4.45	5.11	5.77	6.44	7.12	7.80	8.50	9.22

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	.036	.046	.056	.065	.074	.083	.093	.106	.120	.127	.135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.771	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.266	.353	.440	.528	.616	.704	.792	.877	.977	1.07	1.18	1.29
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.78	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.895	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

OTAY 2<sup>ND</sup> MAIN  
CEMENT MORTAR LINING

PAGE 1 - INDEX ✓  
PAGE 2 THRU 79 - FILTER PLANT TO BONITA WYE ✓  
PAGE 80 THRU 119 - BONITA WYE TO BAYVIEW VALVE ✓  
PAGE 120 THRU 160 - BAYVIEW VALVE TO CHAMUS VALVE ✓



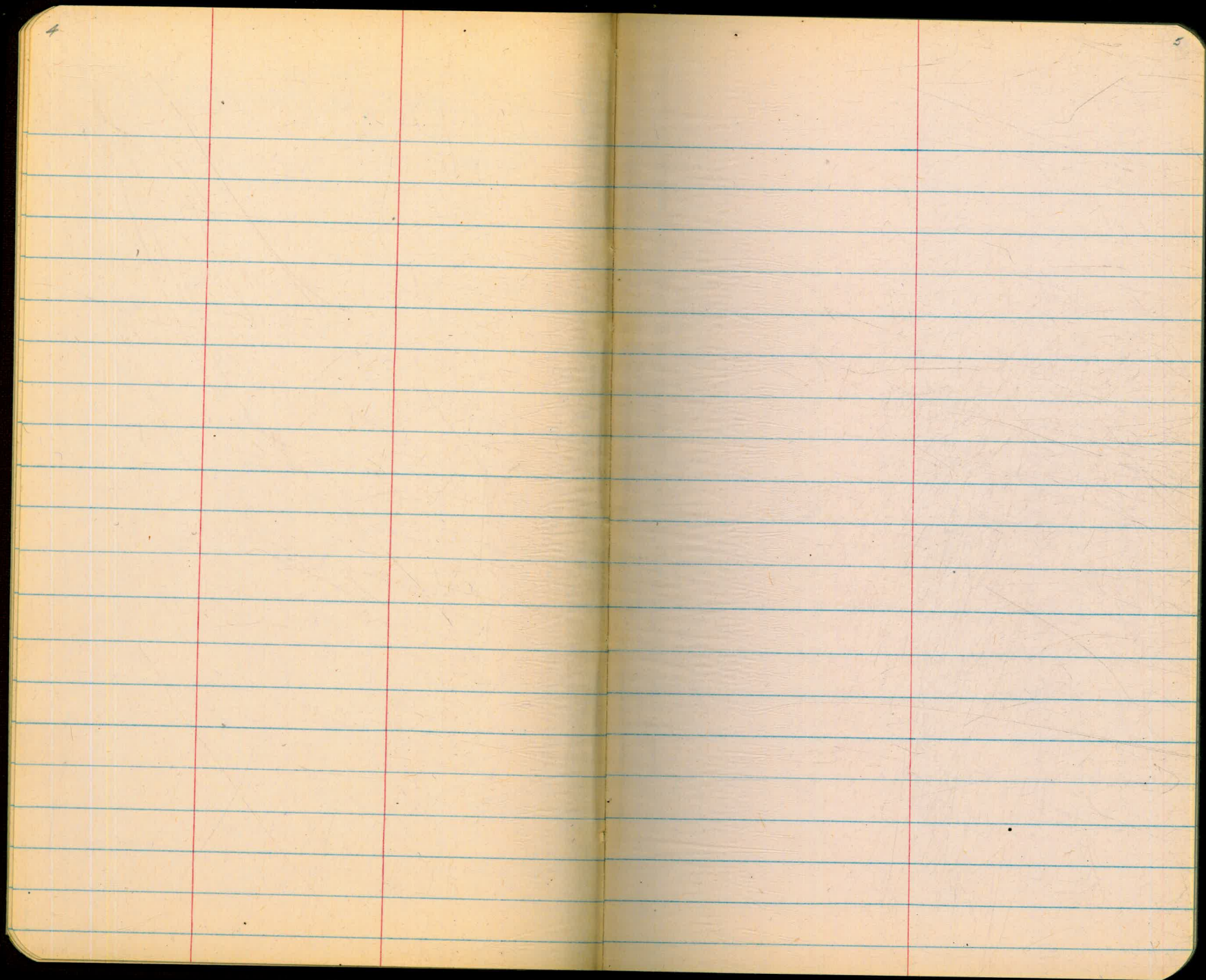
19  
FILTER PLANT TO BONITA WYE

CONTRACTOR -

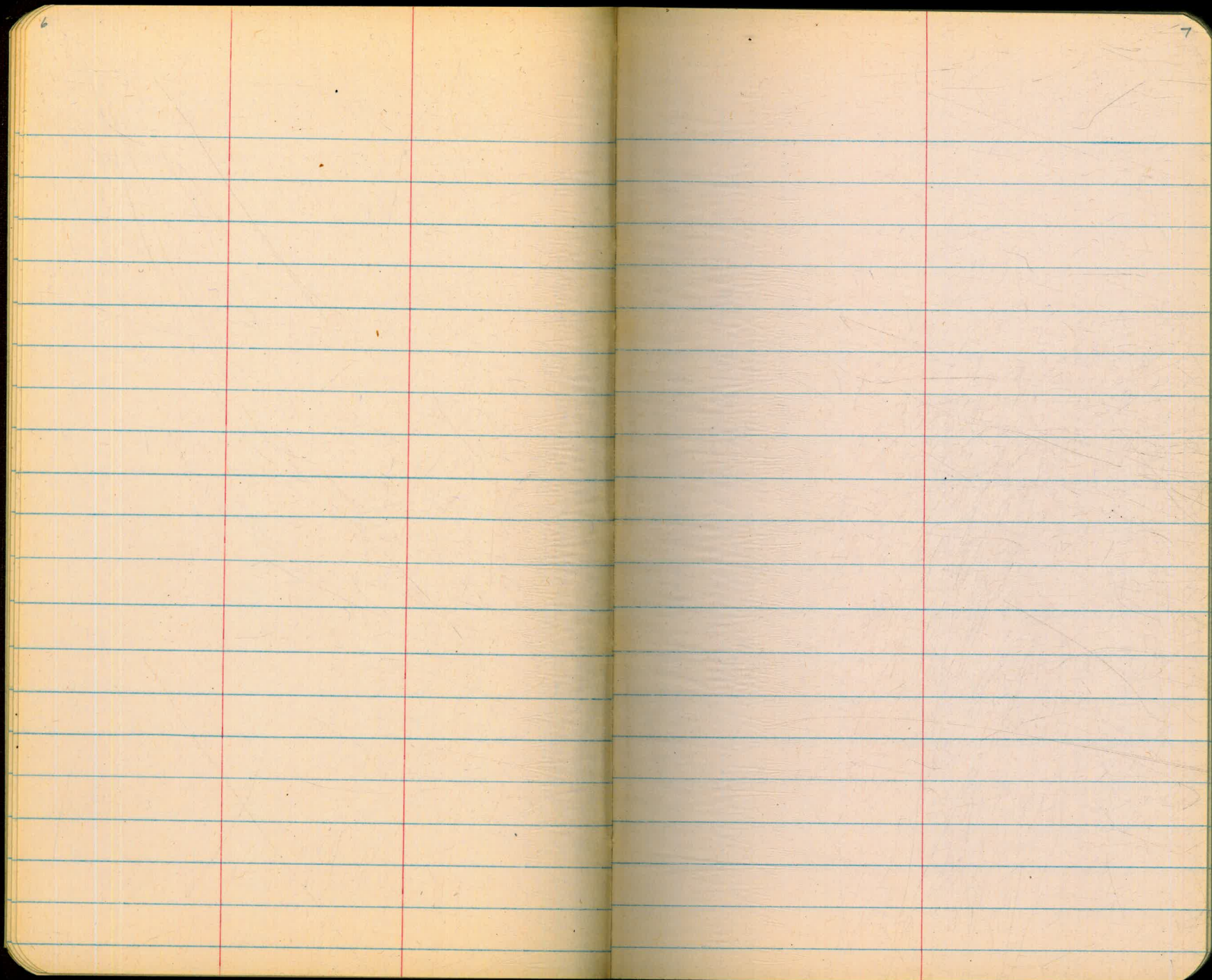
PROCESS -

INSPECTOR -

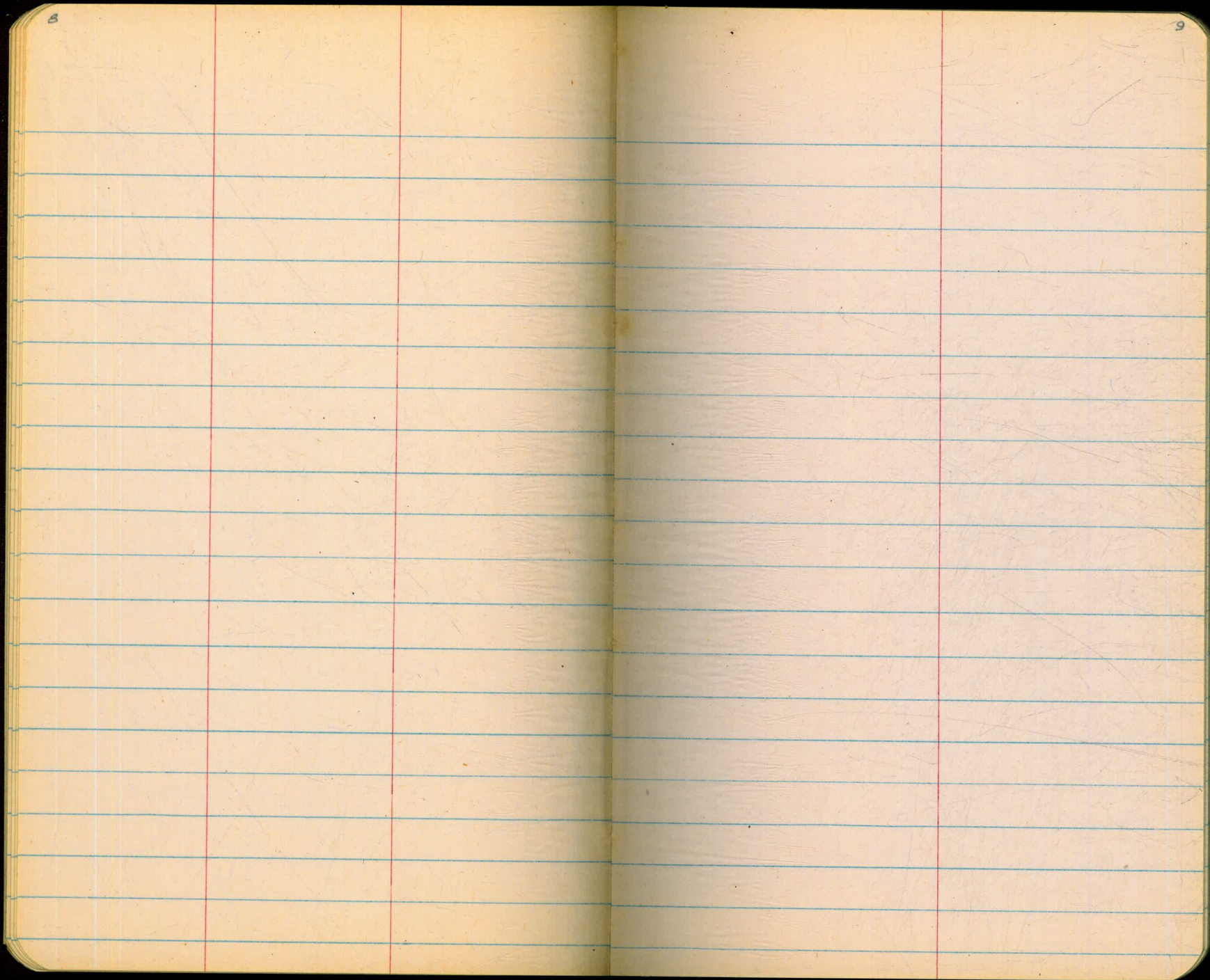




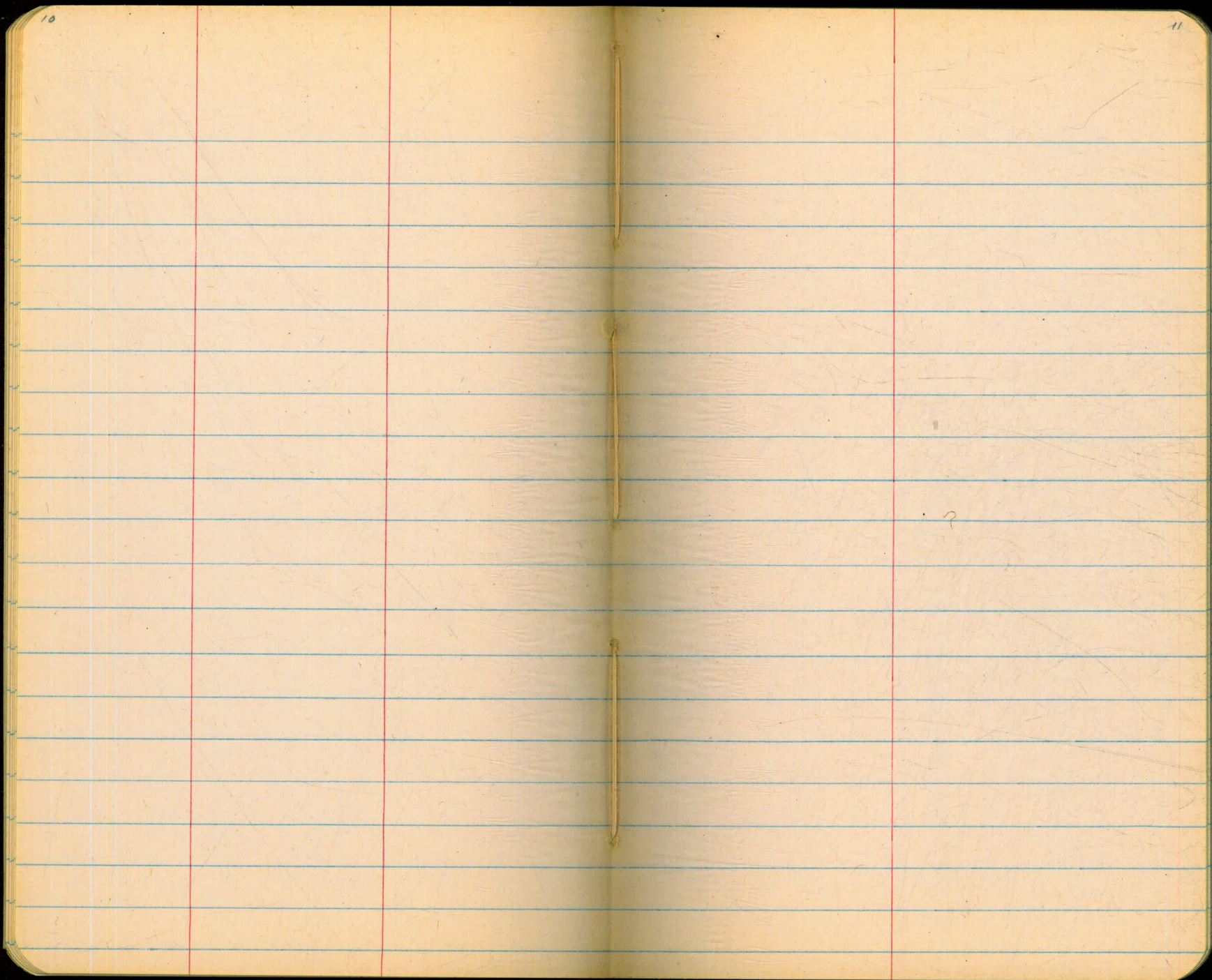




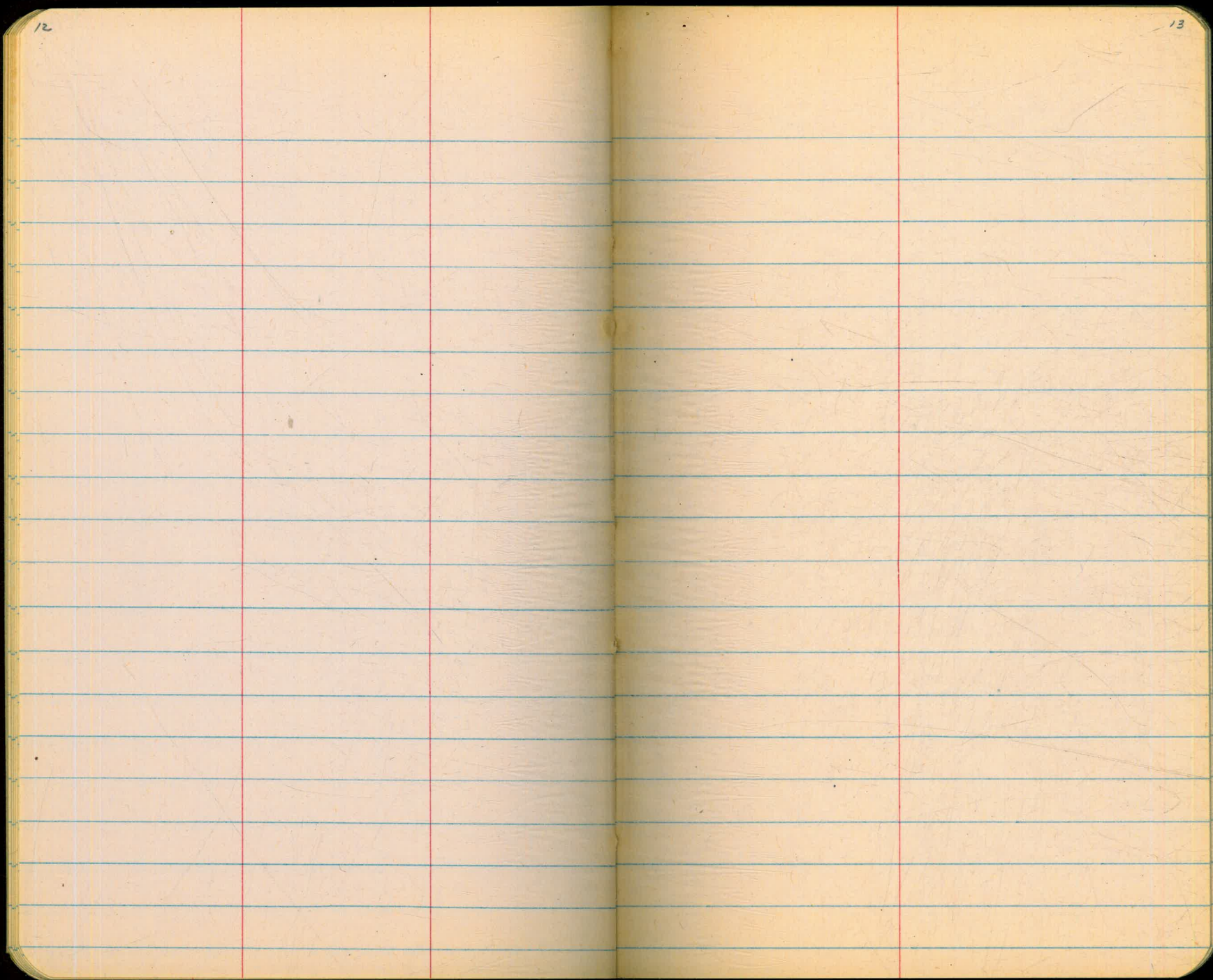








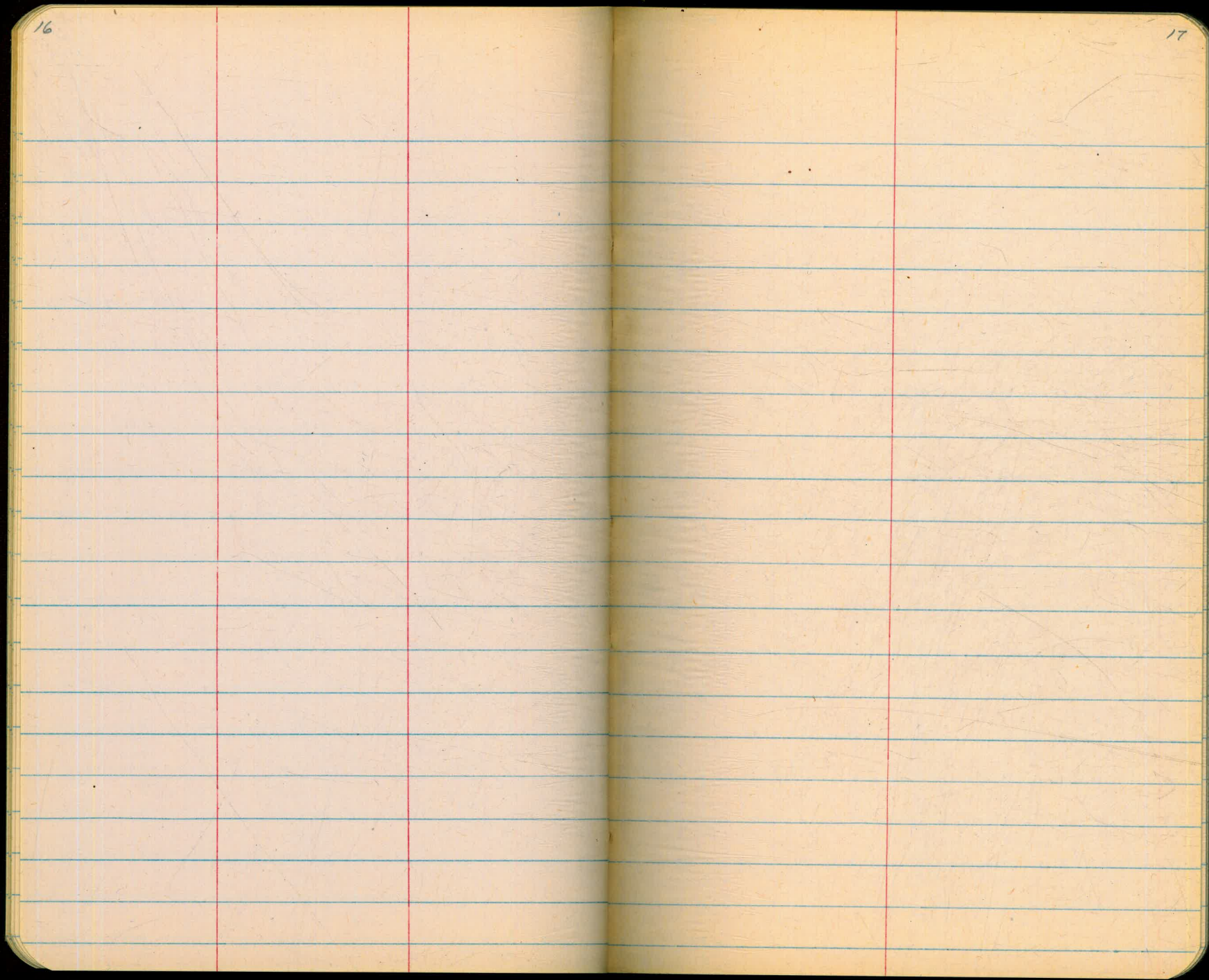








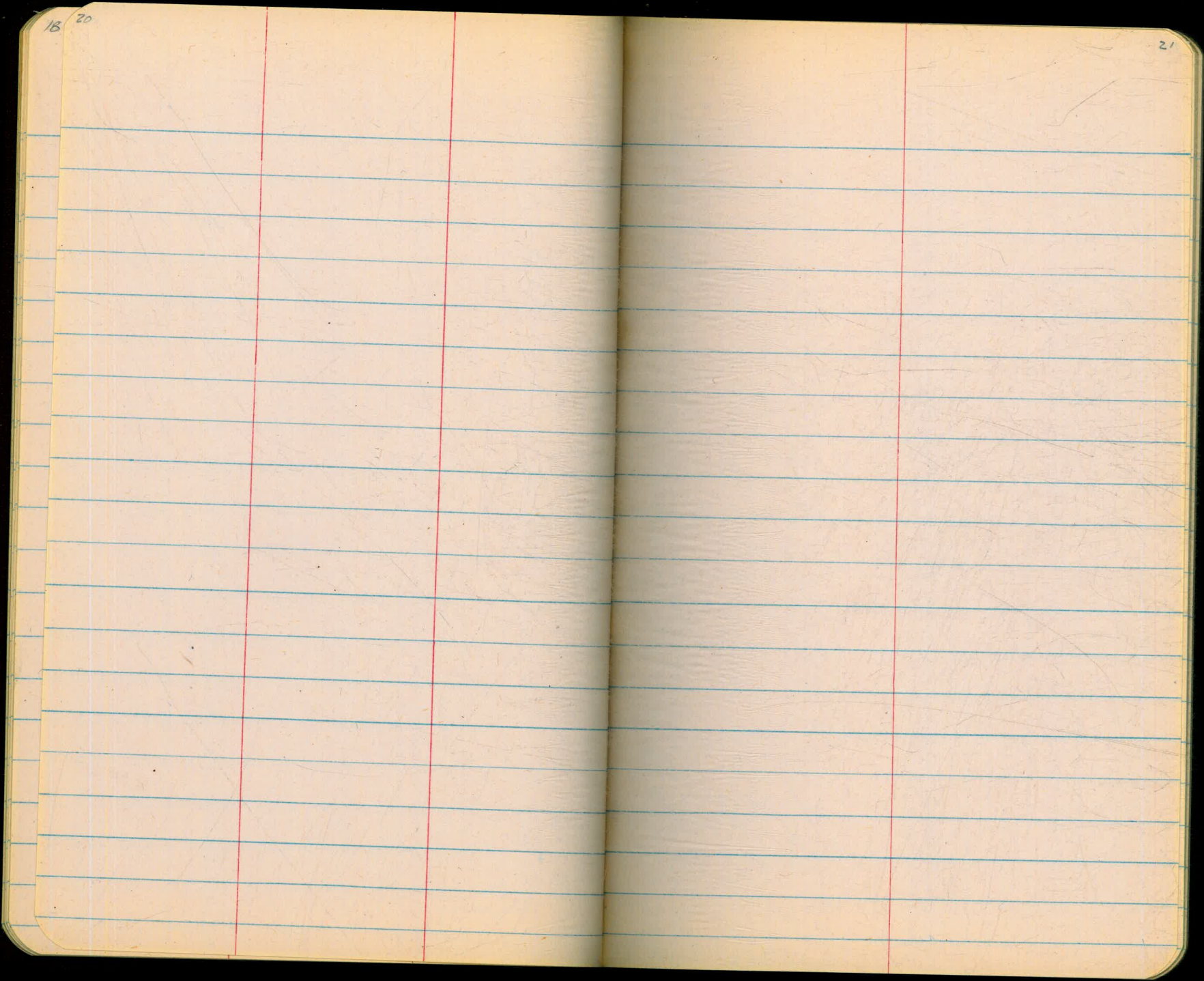




















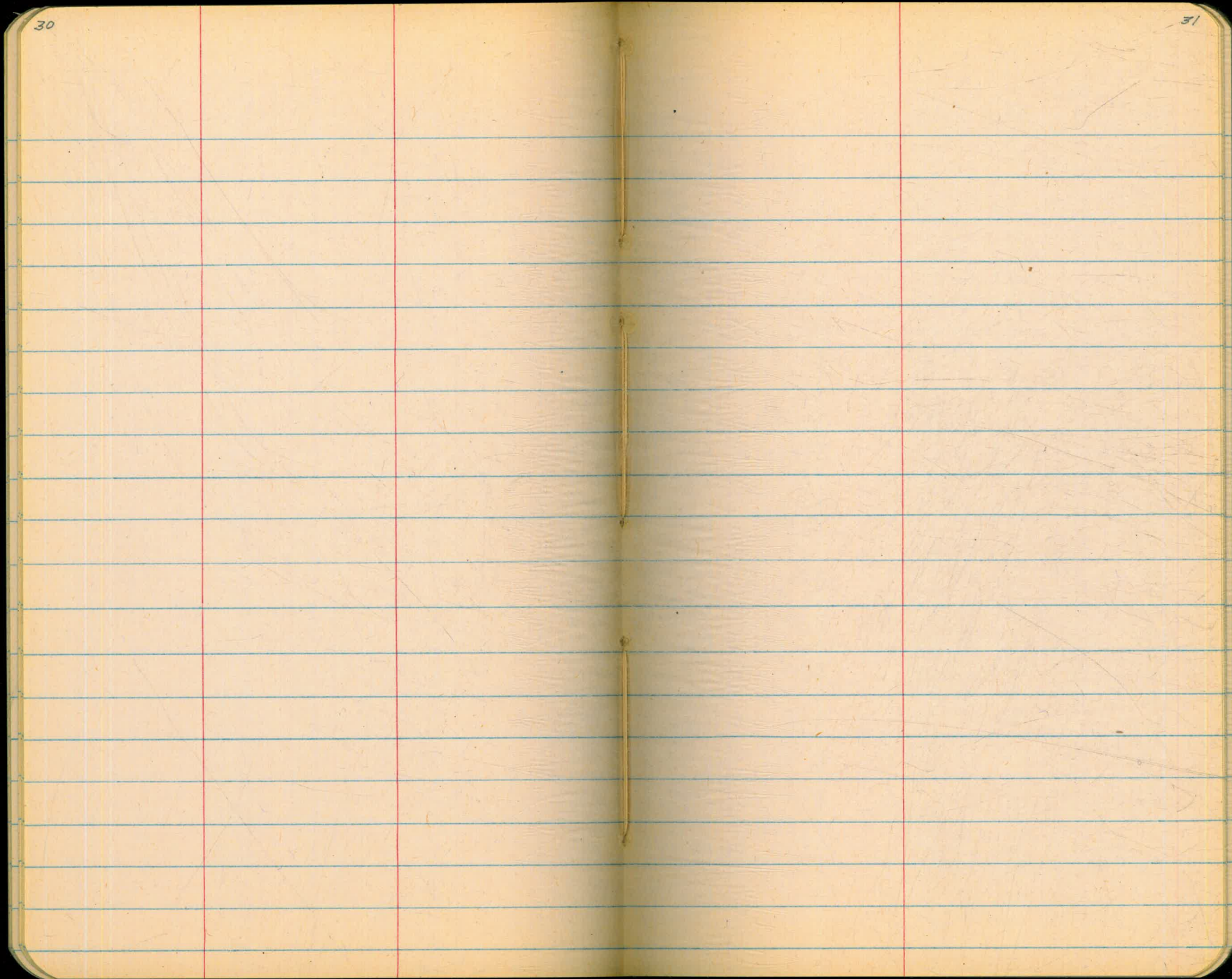


















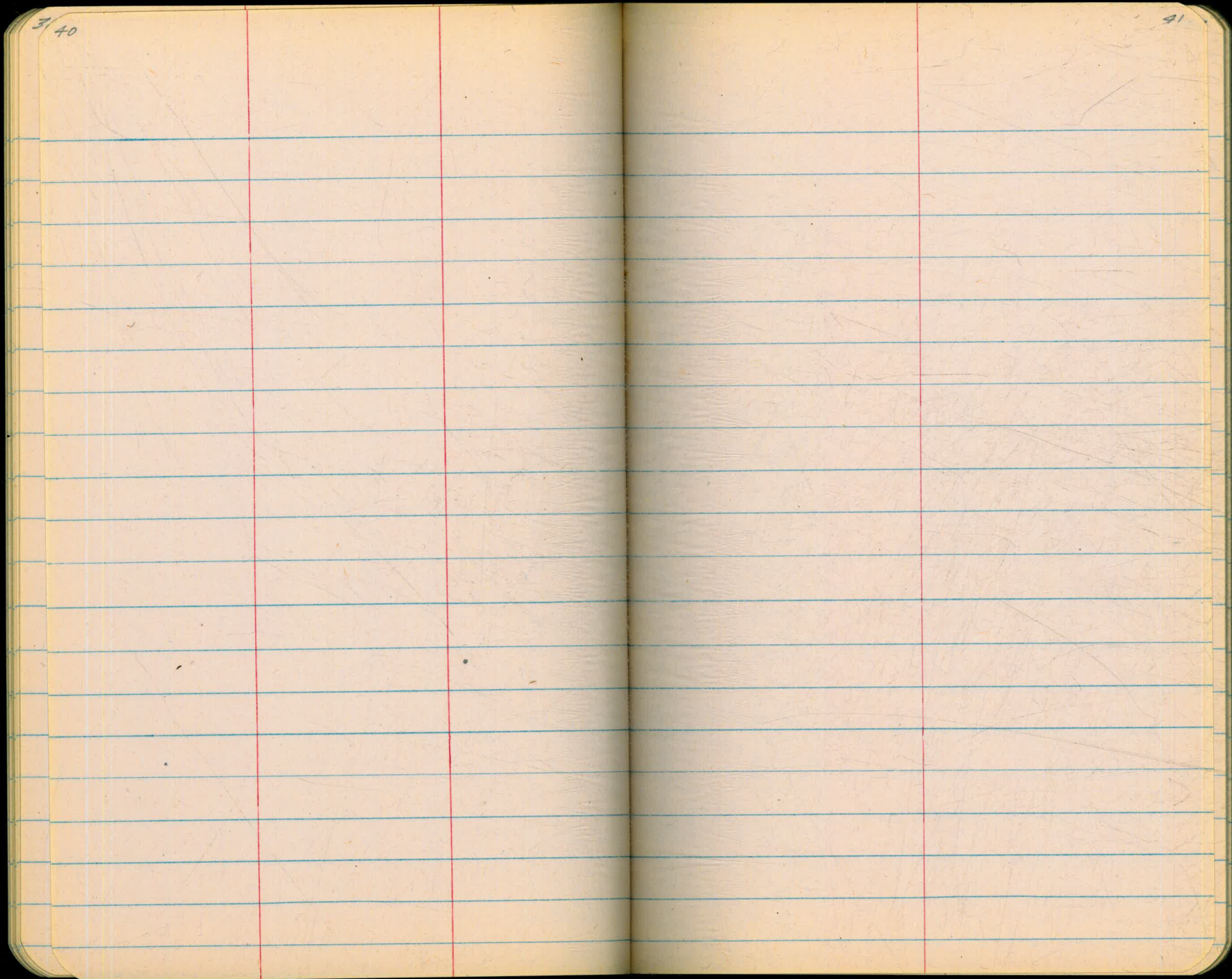








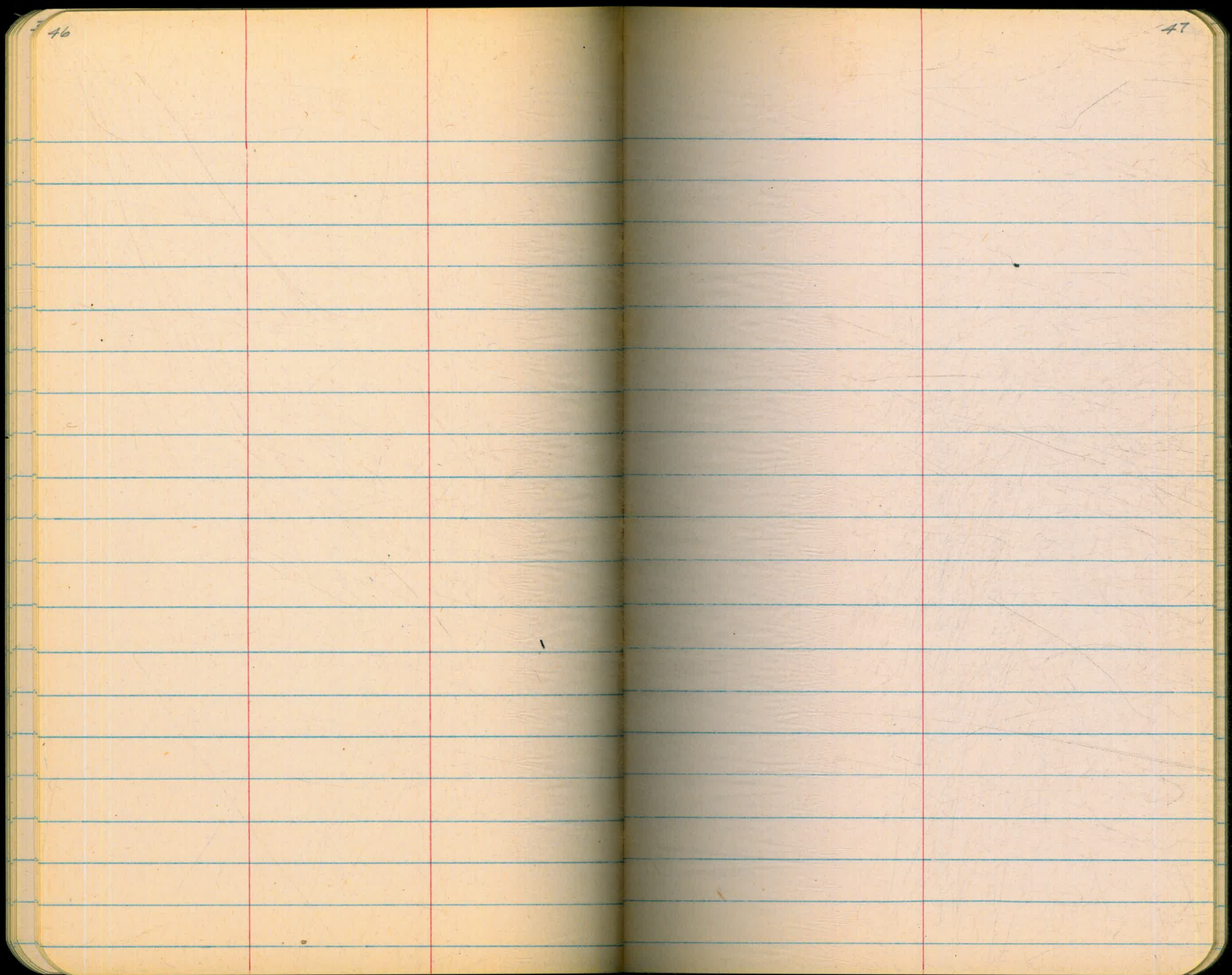




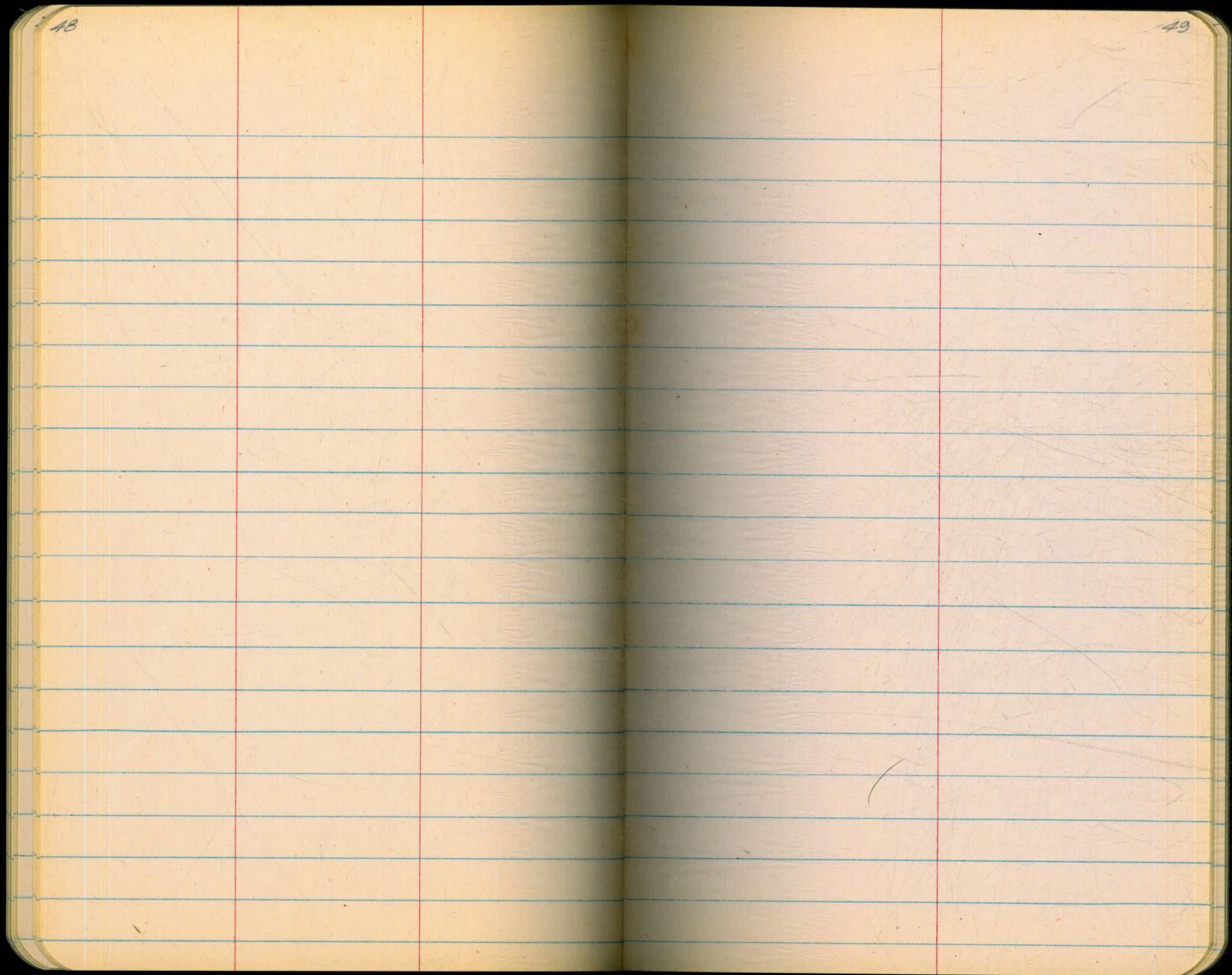






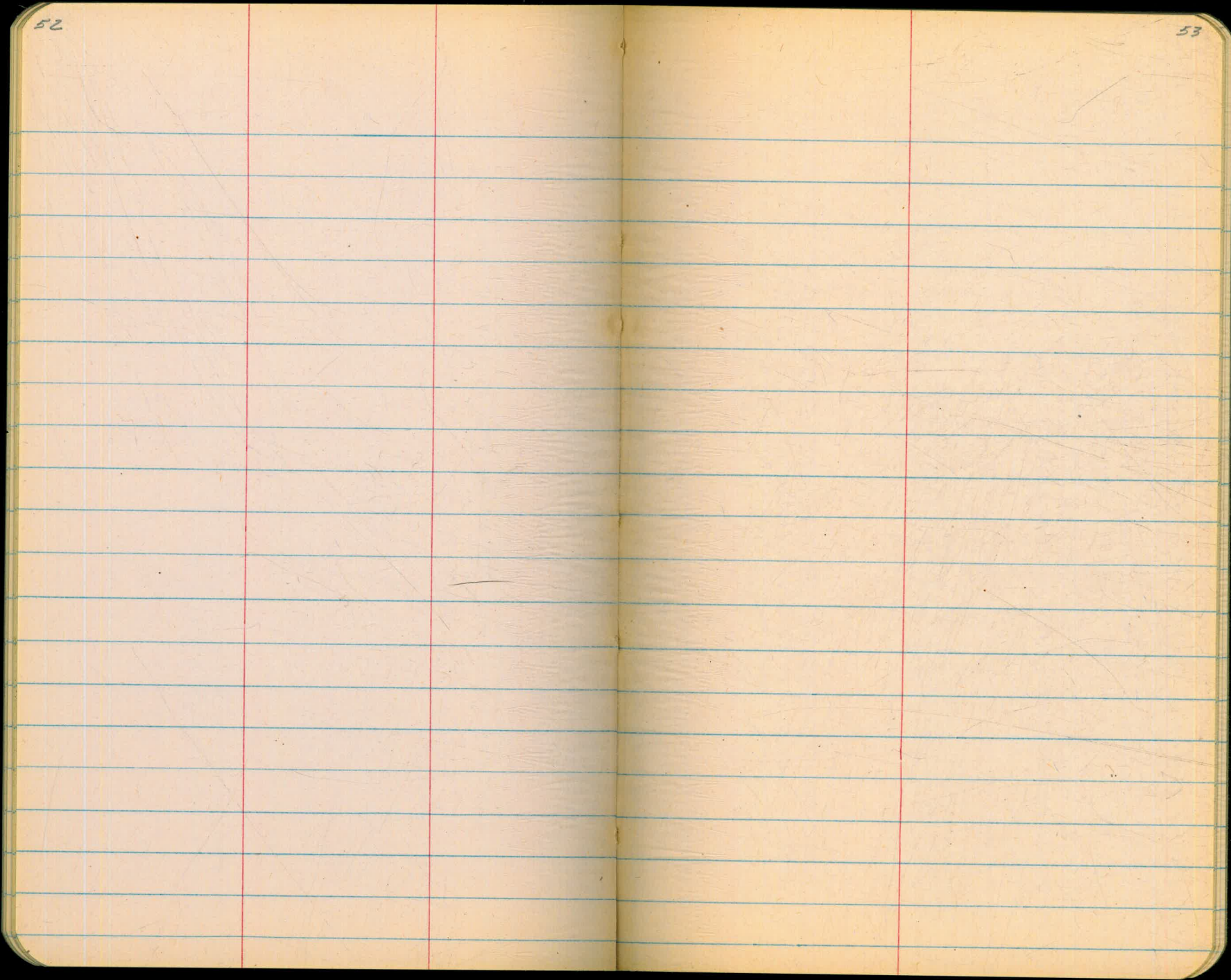


























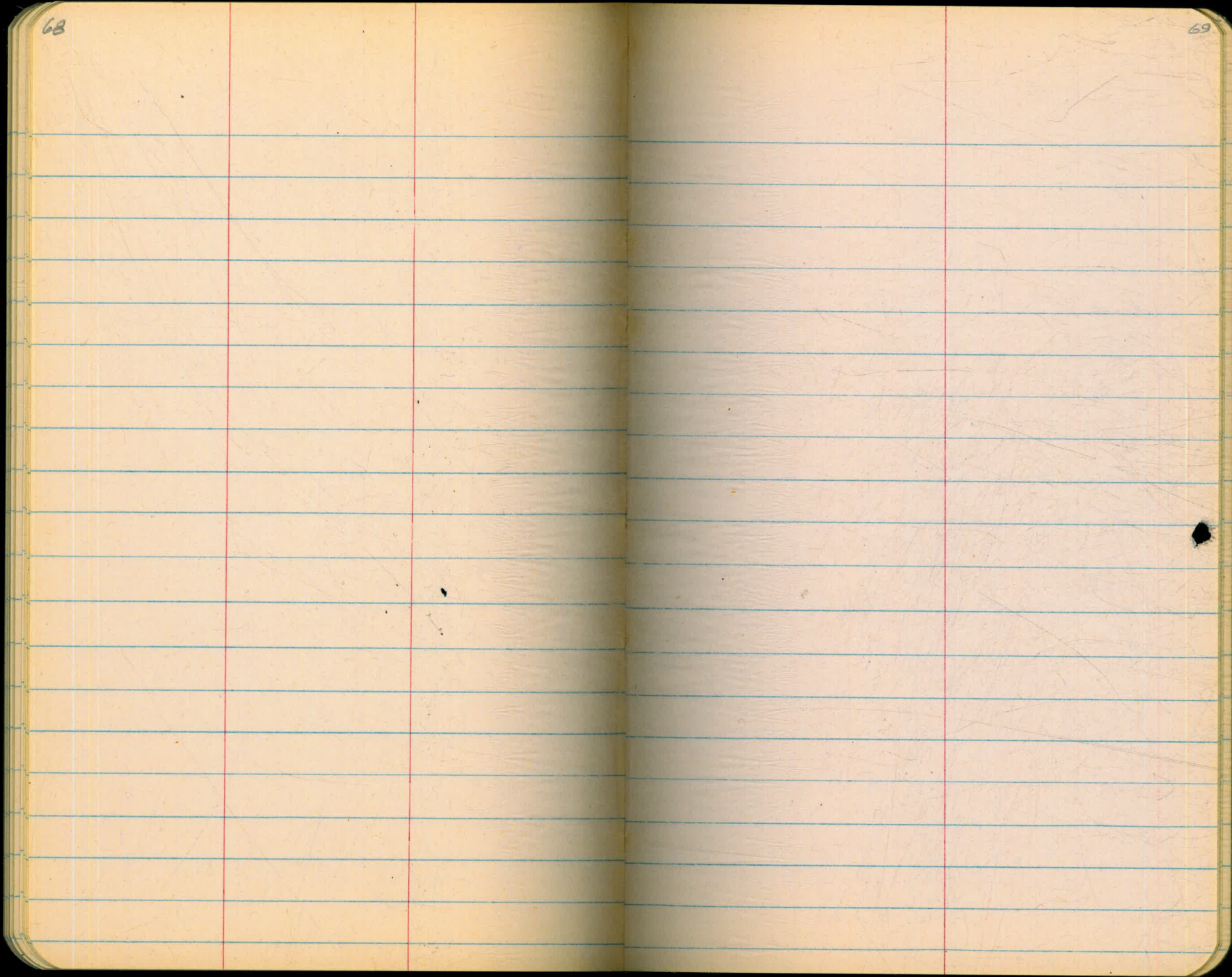


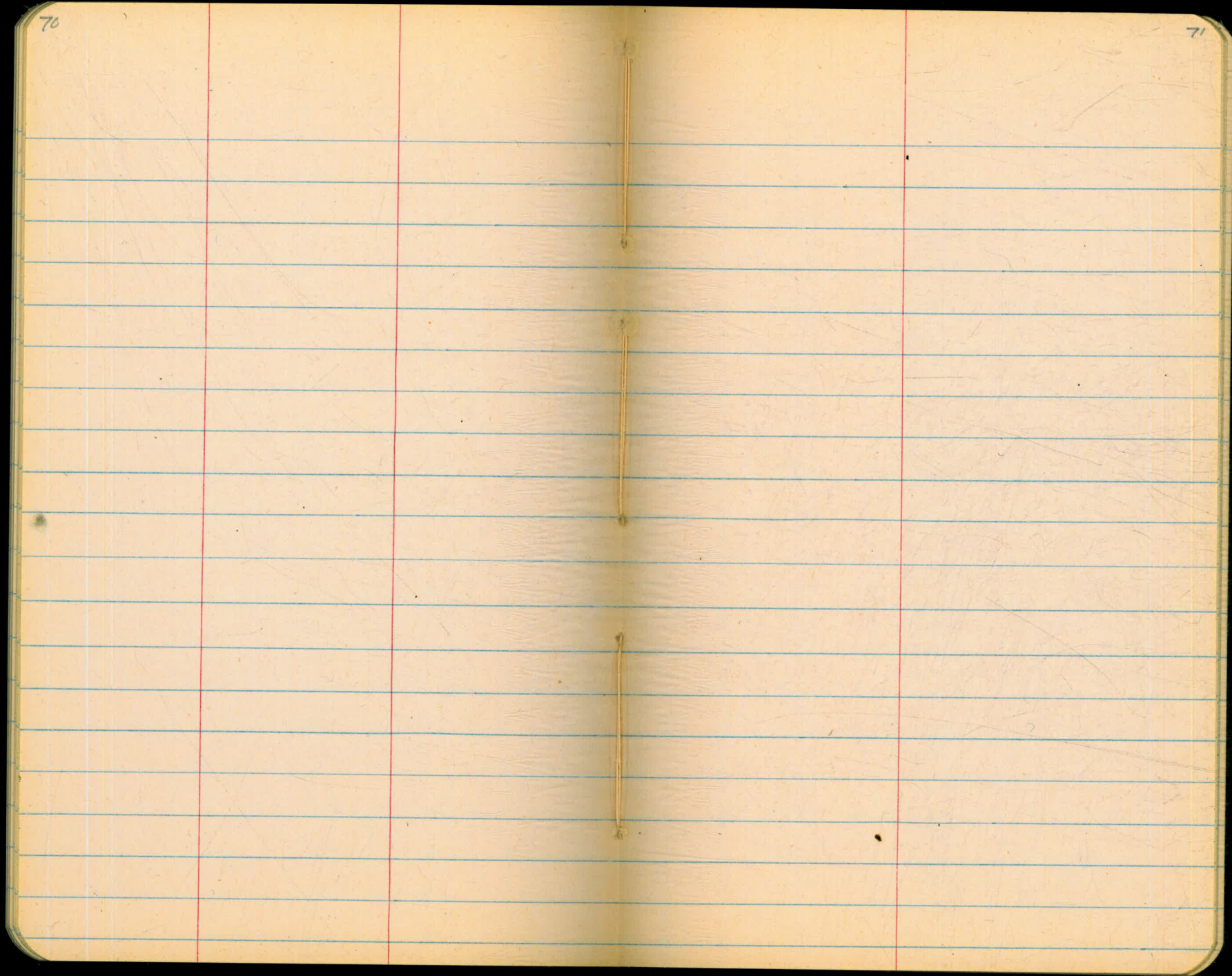
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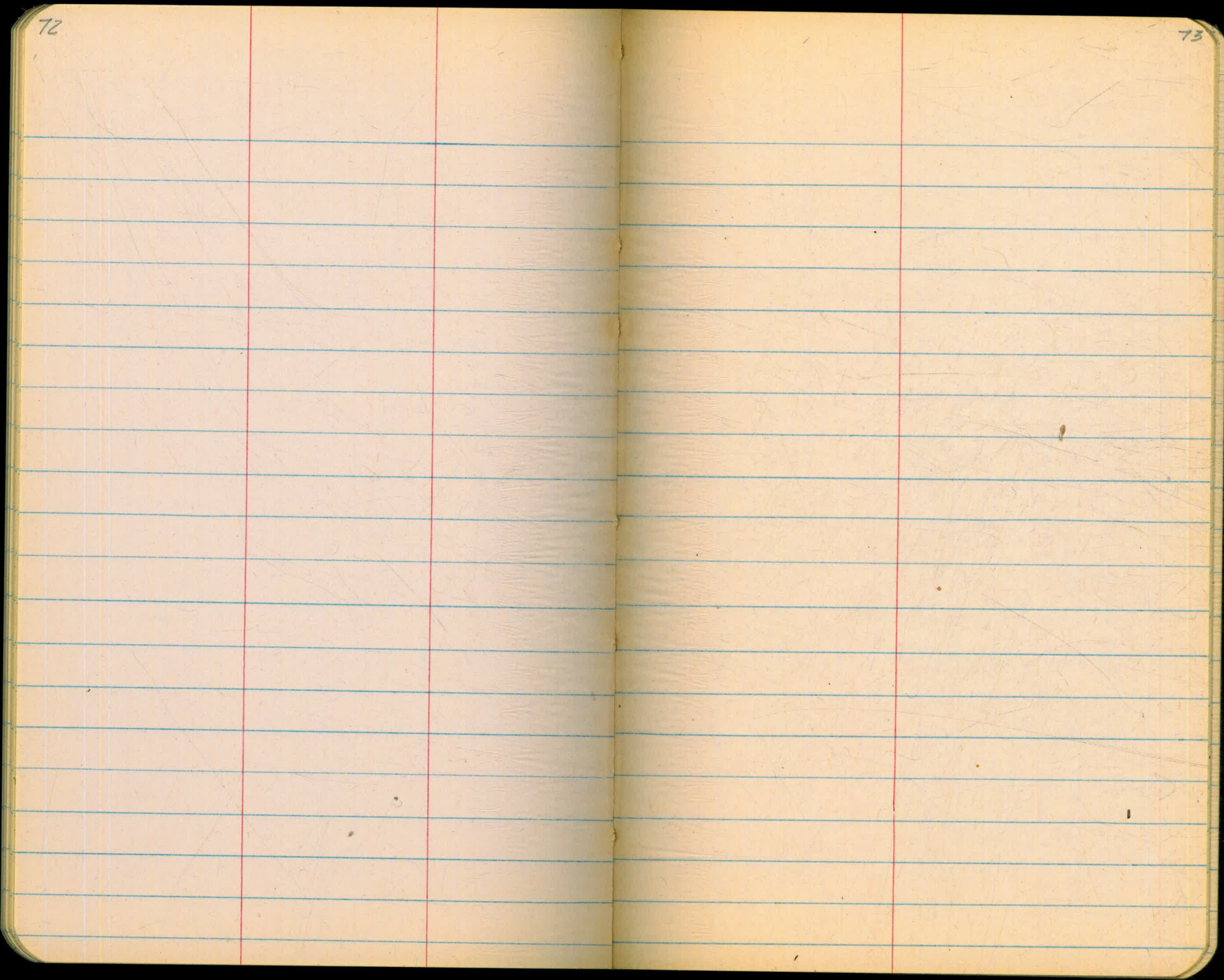






















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**BONITA WYE TO BAYVIEW**

CONTRACTOR - UNITED CONCRETE PIPE CORPORATION

PROCESS - PRE-LOAD

INSPECTOR - M.R. MARTELL

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ACCESS HOLES CUT IN  
PIPE BY CONTRACTOR

APPURTENANCES  
AND OPENINGS

BEGIN WORK STATION

END WORK STATION



ACCESS HOLES CUT IN  
PIPE BY CONTRACTOR

STATION	SIZE	CUT	WELDED	PROTECTIVE COATING By Cox-Gugg Roofers
430+60	16" X 16"	2-27-57	3-12-57	3-15-57
433+00	3 X 8	2-6-57	3-14-57	3-15-57
437+45	2X2	2-6-57	3-14-57	3-15-57
441+43	2X2	2-6-57	3-12-57	3-15-57
445+50	2X2	2-6-57	3-14-57	3-15-57
449+50	2X2	2-6-57	3-11-57	3-15-57
454+25	2X2	2-6-57	3-14-57	3-15-57
458+97	2X2	2-6-57	3-11-57	3-15-57
463+47	2X2	2-6-57	3-15-57	3-15-57
467+60	3X8	1-23-57	3-15-57	3-18-57
469+90 (EXIT HOLE) (Bottom Pipe)	16" X 16" DRAW HOLE	2-25-57	3-16-57	3-18-57
471+80	3" DIA.	1-24-57	1-29-57	2-15-57
473+37	3X8	1-22-57	2-9-57	2-15-57
476+97	2X2	1-22-57	2-9-57	2-15-57
480+35	2X2	1-22-57	2-9-57	2-15-57
482+60	3" DIA. DRAW HOLE	1-24-57	1-29-57	By WATER IMPOUNDING
482+65	2X2	1-22-57	2-9-57	2-15-57
485+36	2X2	1-23-57	2-15-57	2-21-57
487+56	2X2	1-23-57	2-15-57	2-21-57

STATION	SIZE	CUT	WELDED	PROTECTIVE COATING
491+79	2X2	1-24-57	2-19-57	2-21-57
495+20	2X2	1-24-57	2-16-57	2-21-57
498+80	2X2	1-24-57	2-19-57	2-21-57
502+77	2X2	1-24-57	2-16-57	2-21-57
506+80	2X2	1-24-57	2-16-57	2-21-57
511+21	2X2	1-24-57	2-19-57	2-21-57
515+70	2X2	1-24-57	2-16-57	2-21-57
519+48	2X2	1-24-57	2-16-57	2-21-57
522+06	3X8	1-24-57	3-11-57	3-12-57
(EXIT HOLE)	with 6" Copolants + 6" Flash			
524+08	2X2	2-2-57	3-11-57	3-12-57
527+05	2X2	2-2-57	3-7-57	3-12-57
531+13	2X2	2-2-57	3-11-57	3-12-57
535+90	2X2	2-2-57	3-7-57	3-12-57
539+50	2X2	2-2-57	3-7-57	3-12-57
543+50	2X2	2-2-57	3-11-57	3-12-57
548+60	2X2	2-9-57	2-27-57	3-4-57
552+30	2X2	2-9-57	3-7-57	3-12-57
556+66	2X2	2-4-57	2-27-57	3-4-57
(HOLE)				
560+24	2X2	2-4-57	3-7-57	3-12-57
563+83	2X2	2-4-57	2-27-57	3-4-57
567+93	2X2	2-4-57	2-26-57	3-4-57
572+07	2X2	2-9-57	2-27-57	3-4-57



STATION	SIZE	CUT	WELDED	PROTECTIVE COATING
576+04	2X2	2-4-57	2-26-57	3-12-57
576+75	1" O/A. 1" PIPE BROWN PALE	2-19-57	2-19-57	3-12-57
578+86	2X2	2-9-57	2-26-57	3-4-57
583+36	3X8	2-9-57	2-25-57	3-4-57
585+14	2X2	2-4-57	2-26-57	3-4-57

# APPURTENANCES AND OPENINGS

STATION	DESCRIPTION	LOCATED	IN USE	CHECKED CLEAR AFTER LINING OF PIPE
430+51	30" G.V.	✓	✓	—
430+57	36X30" REDUCER	✓	✓	—
430+60	4" A.U.	✓	✓	✓
430+88	EXPANSION JOINT	✓	✓	—
436+75	4" A.U.	✓	✓	—
443+75	2" G.V. 4" RISE WITH MANIFOLD AND 8-24" COUPLING AND ONE 1" METE	✓	✓	✓
443+83	2-4" A.U. (W/ 1" METE OFF 2" RISE) NOTE: STEEL PLATE WELDED ON 2" RISE AND 2" METE COUPLING.	✓	✓	✓
453+08	STEEL PLATE WELDED ON 2" RISE BY WATER DISTRIBUTION WATER METE TRANSDUCER FOR S.O. RISE ON 2" RISE.	✓	✓	—
453+15	4" S.O.	✓	✓	✓
454+10	1" COUPLING W/ SIDE PIPE WITH WATER METE	✓	✓	—
436+97	STEEL PLATE WELDED ON W/ SIDE 3" RISE FOR WATER METE TRANSDUCER FOR 4" A.U. RISE ON STA. 457+00.	✓	✓	—
464+49	4" A.U.	✓	✓	—
469+85	4" A.U.	✓	✓	—
482+60	4" S.O.	✓	✓	—
485+11	10" SIDE OUTLET EAST EMERGENCY TAKE OFF FROM CAL. WAT. & TEL. CO. W/ METE	✓	✓	✓
485+16	10" SIDE OUTLET EAST EMERGENCY TAKE OFF FROM CAL. WAT. & TEL. CO. (NO METE)	✓	✓	✓
491+53	2-4" A.U.	✓	✓	—
494+27	1" Coupling w/meter	NO	NO	—
494+87	1" Coupling w/meter	NO	NO	—



## APPURTENANCES &amp; OPENINGS CONT.

STATION	DESCRIPTION	LOCATED	IN USE	CHECKED CLEAR AFTER LAMING OF PIPE
495+05 (EAST)	1/2" COUPLING w/ 1" METAL 3/4" COPPER SERV. J91	✓	✓	✓
495+09 (EAST)	1" COUPLING w/ 2 METALS 3/4" COPPER SERV. J91	✓	✓	✓
495+07	1" COUPLING w/ METER	NO	NO	—
495+ <sup>25</sup> (EAST)	3/4" COPPER SERV. J91 1" COUPLING w/ METER	✓	✓	✓
496+08 (EAST)	3/4" COPPER SERV. 1" COUPLING w/ METER STEEL PLATE J91 3/4" COPPER SERVICE	✓	✓	✓
496+41 (WEST)	1" COUPLING w/ METER	✓	✓	✓
496+25 (EAST)	STEEL PLATE J91 3/4" COPPER SERVICE	✓	✓	✓
497+43 (WEST)	1" COUPLING w/ METER STEEL PLATE J91 3/4" COPPER SERVICE	✓	✓	✓
497+ <sup>89</sup> 46 (EAST)	1" COUPLING w/ METER	✓	✓	✓
498+23	2-4" A.U.	✓	✓	✓
499+30 (EAST)	STEEL PLATE J91 3/4" COPPER SERV. w/ METER	✓	✓	✓
500+36 (EAST)	3/4" COPPER SERV. w/ METER 1" COUPLING J91	✓	✓	✓
501+ <sup>17</sup> 45 (EAST)	1" COUPLING J91 3/4" COPPER SERV. w/ METER	✓	✓	✓
501+ <sup>88</sup> 27 (EAST)	1" COUPLING J91 3/4" COPPER SERV. w/ METER	✓	✓	✓
502+ <sup>87</sup> 85 (EAST)	STEEL PLATE J91 3/4" COPPER SERV. w/ METER	✓	✓	✓
502+01 (EAST)	STEEL PLATE J91 3/4" COPPER SERV. w/ METER	✓	✓	✓
502+10	1" COUPLING w/ 2 METALS	NO	NO	—
502+62 (EAST)	STEEL PLATE J91 3/4" COPPER SERV. w/ METER	✓	✓	✓
502+75 (EAST)	STEEL PLATE J91 3/4" COPPER SERV. w/ METER	✓	✓	✓
506+07	4" B.O.	✓	✓	✓
506+12	1" COUPLING w/ METER	NO	NO	—
506+15 (SOUTH)	3/4" COPPER SERVICE w/ METER (TRANSFERRED FROM B.O. RISER)	✓	✓	✓

STATION	DESCRIPTION	LOCATED	IN USE	CHECKED CLEAR AFTER LAMING
507+28 (So.)	1" COUPLING J91 3/4" COPPER SERV. w/ METER	✓	NO (STIFF)	✓
507+38 (So.)	1" COUPLING w/ METER	NO	NO	—
508+ <sup>189</sup> 46 (So.)	1" COUPLING J91 3/4" COPPER STIFF STEEL PLATE J91	✓	NO (STIFF)	✓
508+28 (So.)	3/4" COPPER SERV. w/ METER	✓	✓	✓
512+12	4" A.U.	✓	✓	✓
516+70	4" B.O.	✓	✓	✓
522+25	2-4" A.U.'s	✓	✓	✓
526+15	4" B.O.	✓	✓	✓
535+75	2-4" A.U.'s (2" SERVICE & METER)	✓	✓	✓
540+85	4" B.O.	✓	✓	✓
545+00	4" A.U. (2" SERVICE & METER)	✓	✓	✓
549+55	4" B.O.	✓	✓	✓
556+75	2-4" A.U.'s	✓	✓	✓
560+30	4" B.O.	✓	✓	✓
565+75	2-4" A.U.'s	✓	✓	✓
570+00	4" A.U.	✓	✓	✓
571+15	4" B.O.	✓	✓	✓
574+58	4" A.U.	✓	✓	✓
576+75	4" B.O.	✓	✓	✓



## APPURTENANCES &amp; OPENINGS CONT.

STATION	DESCRIPTION	LOCATED	IN USE	CHECKED CLEAR AFTER LINING
579+10	4" A.U.	✓	✓	✓
583+50	4" B.D.	✓	✓	✓
585+ <del>15</del> <sup>17</sup>	16" OUTLET BOTTOM PIPE (TO WEST)	✓	✓	✓
585+20	36" X 30" REDUCER	✓	✓	—
585+22	2" COUPLING (BOTTOM)	✓	✓	WELDED BY CONTRACTOR TO DRAW WATER FROM 1" PIPE FROM LEAKING 30" G.U. (PLUGGED)
585+25	30" G.U.	✓	✓	—

## STATIONS OF BEGIN &amp; END WORK

4 30" G.U. STATION 430+51

BEGIN WORK 1' WEST OF VALVE STATION 430+52.

4 50" G.U. STATION 585+24

END WORK 1' SOUTH OF VALVE STATION 585+23

STATION 585+23

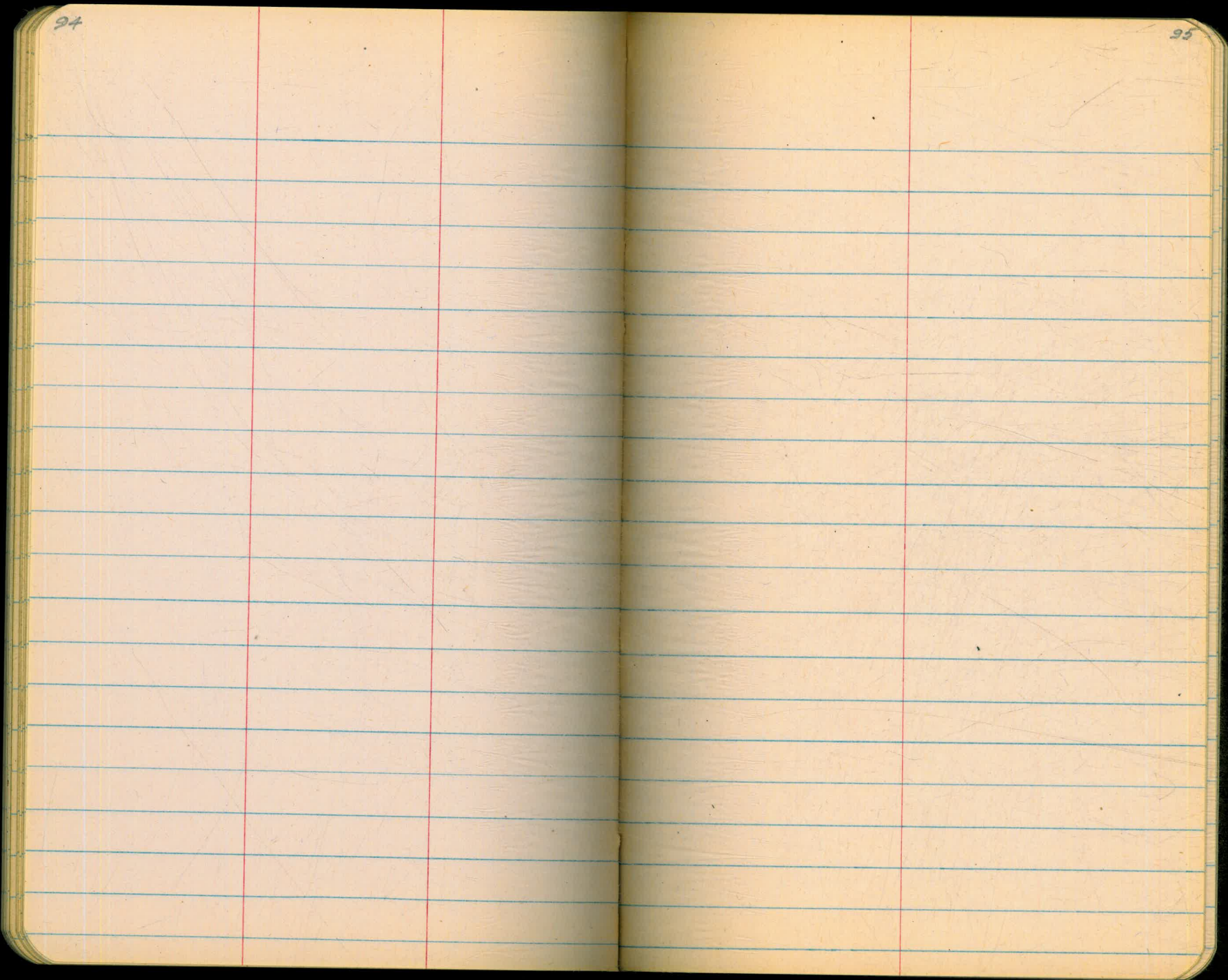
STATION 430+52

TOTAL LINEAL FEET — — — 15,471















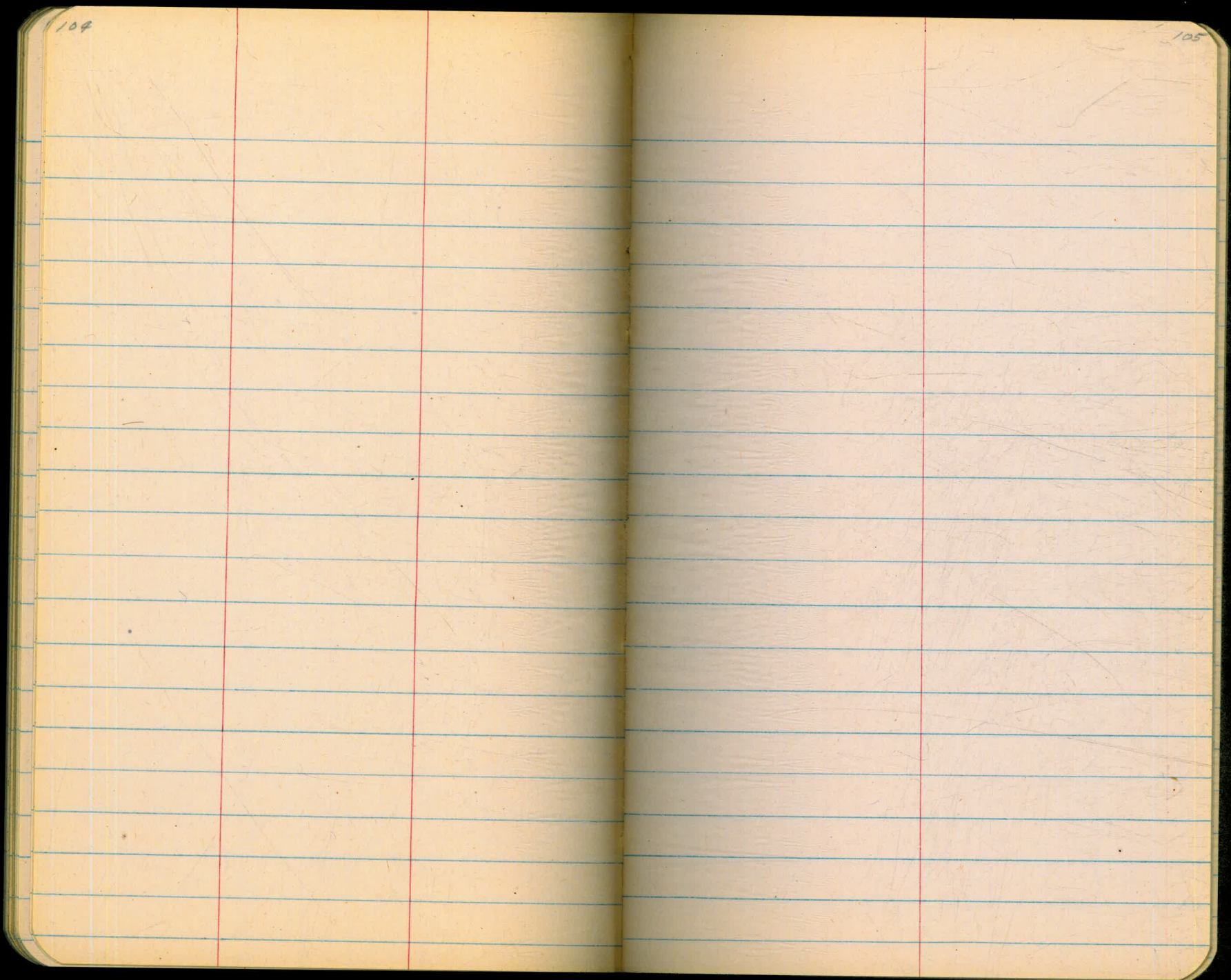


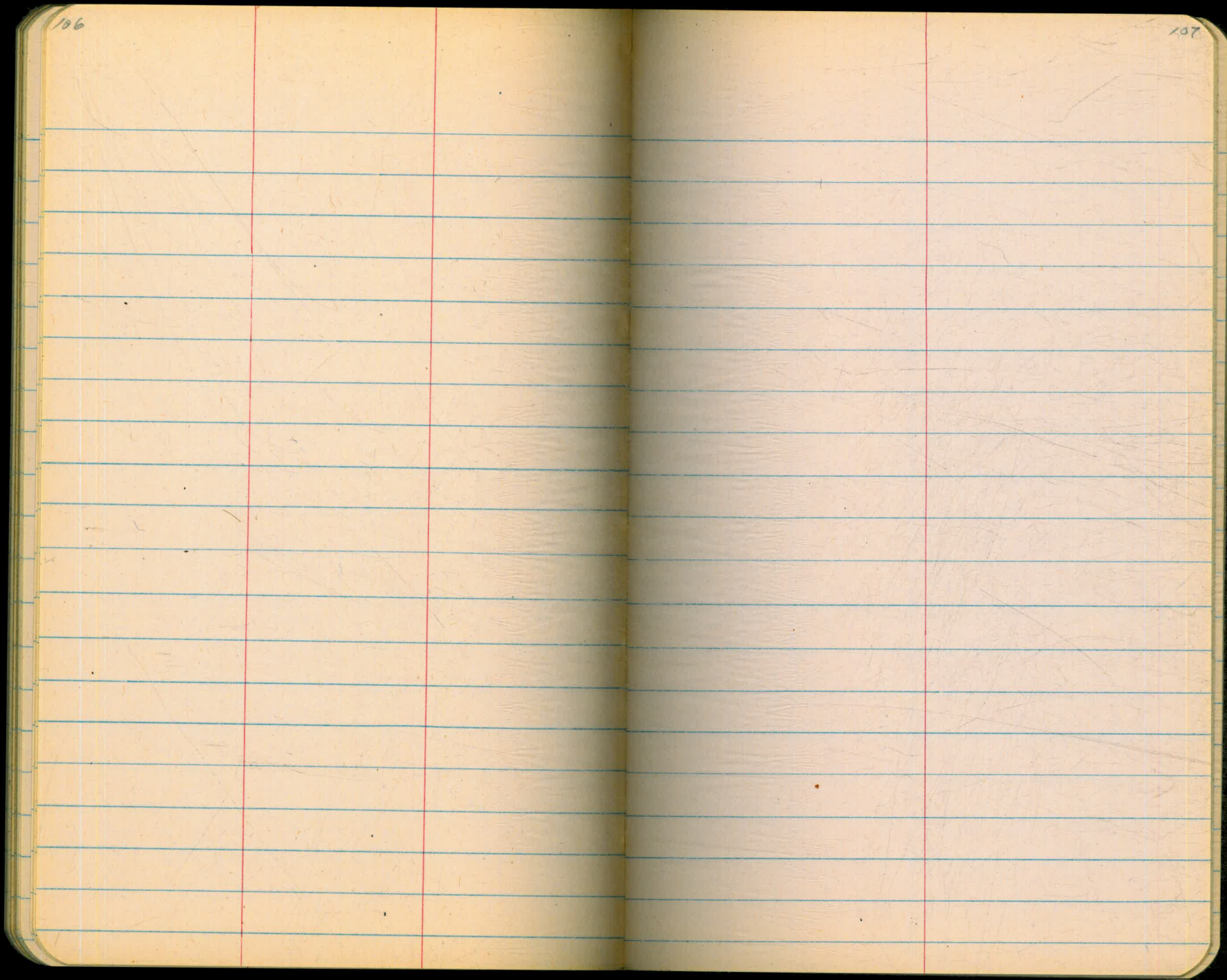
9/100

101

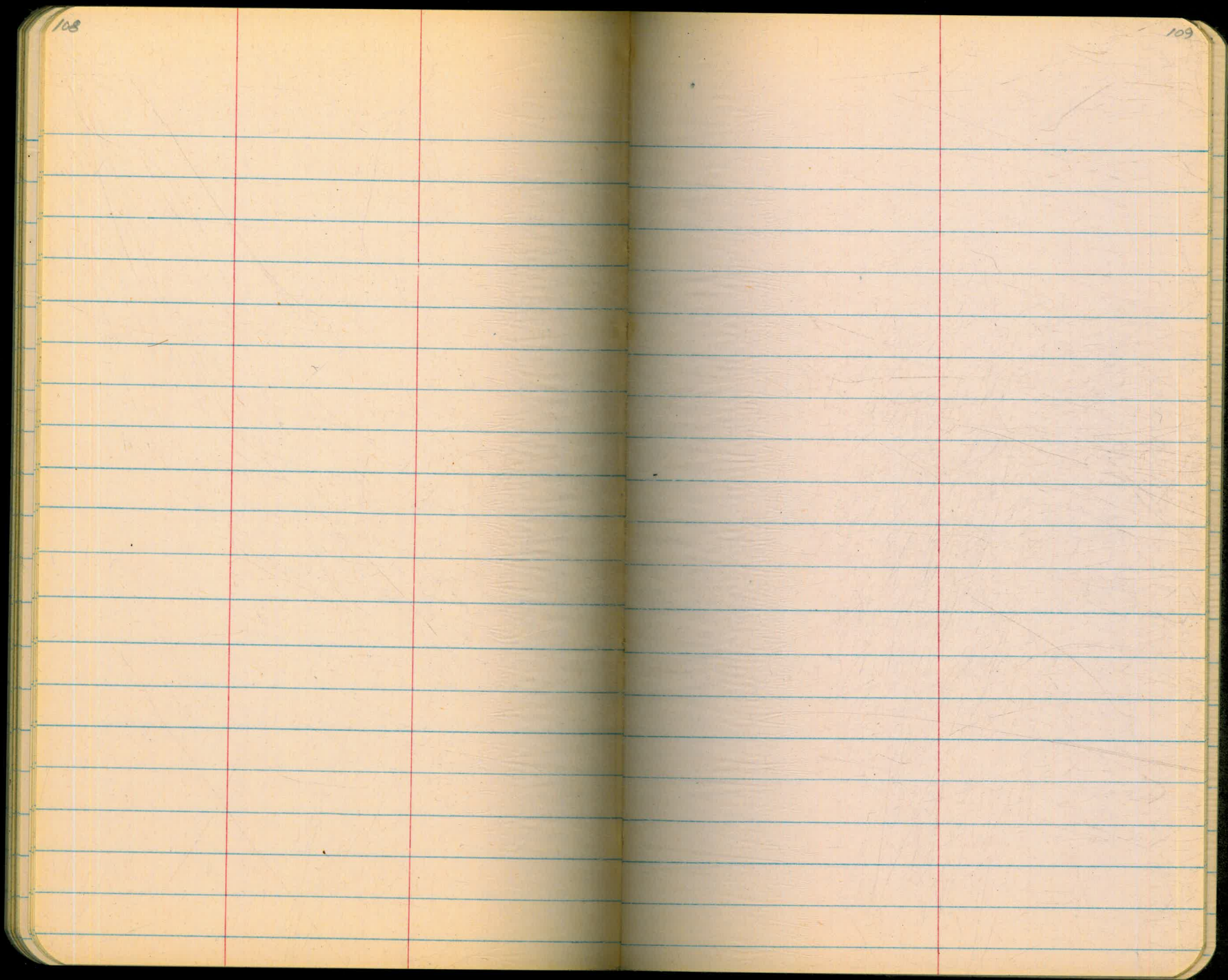


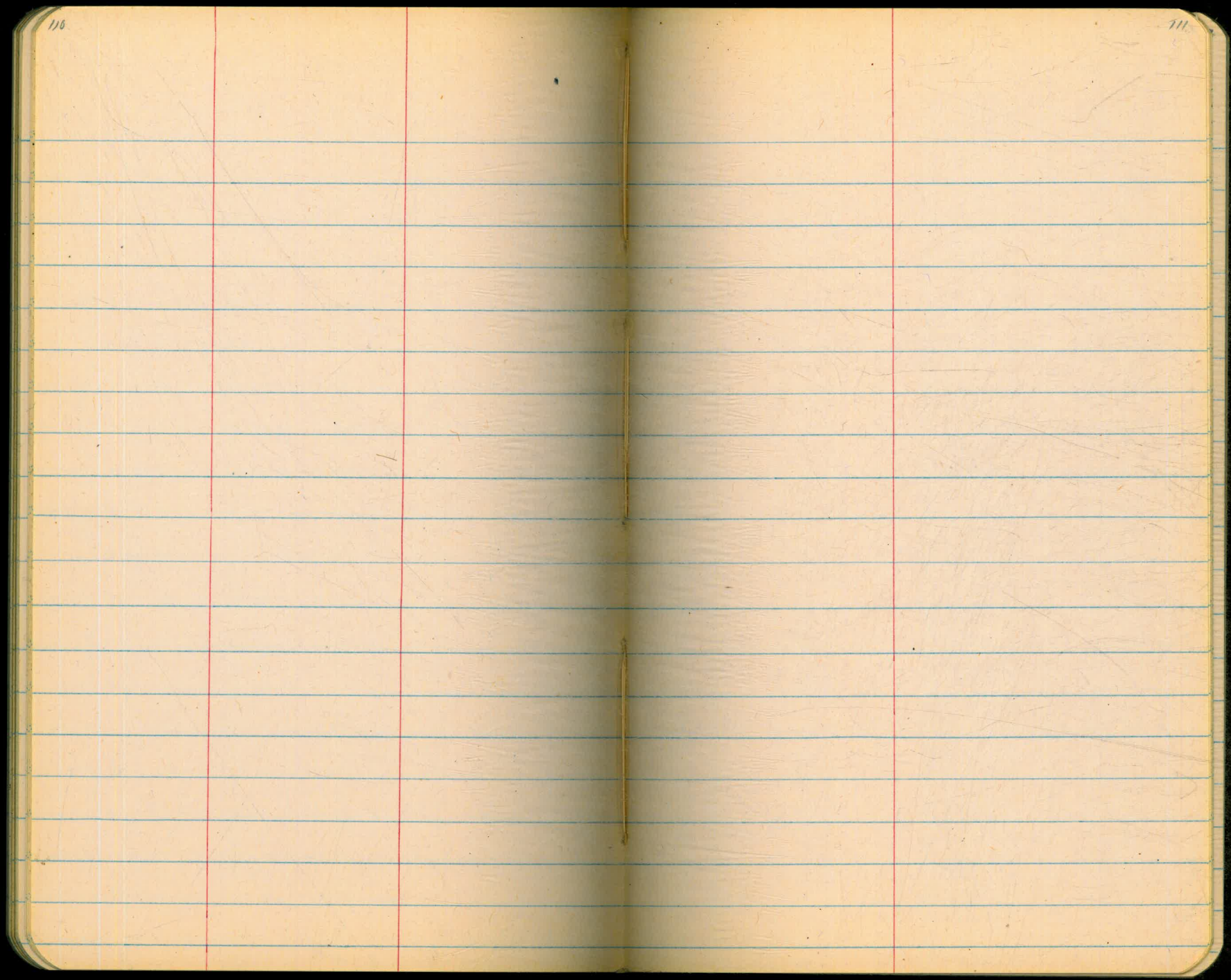






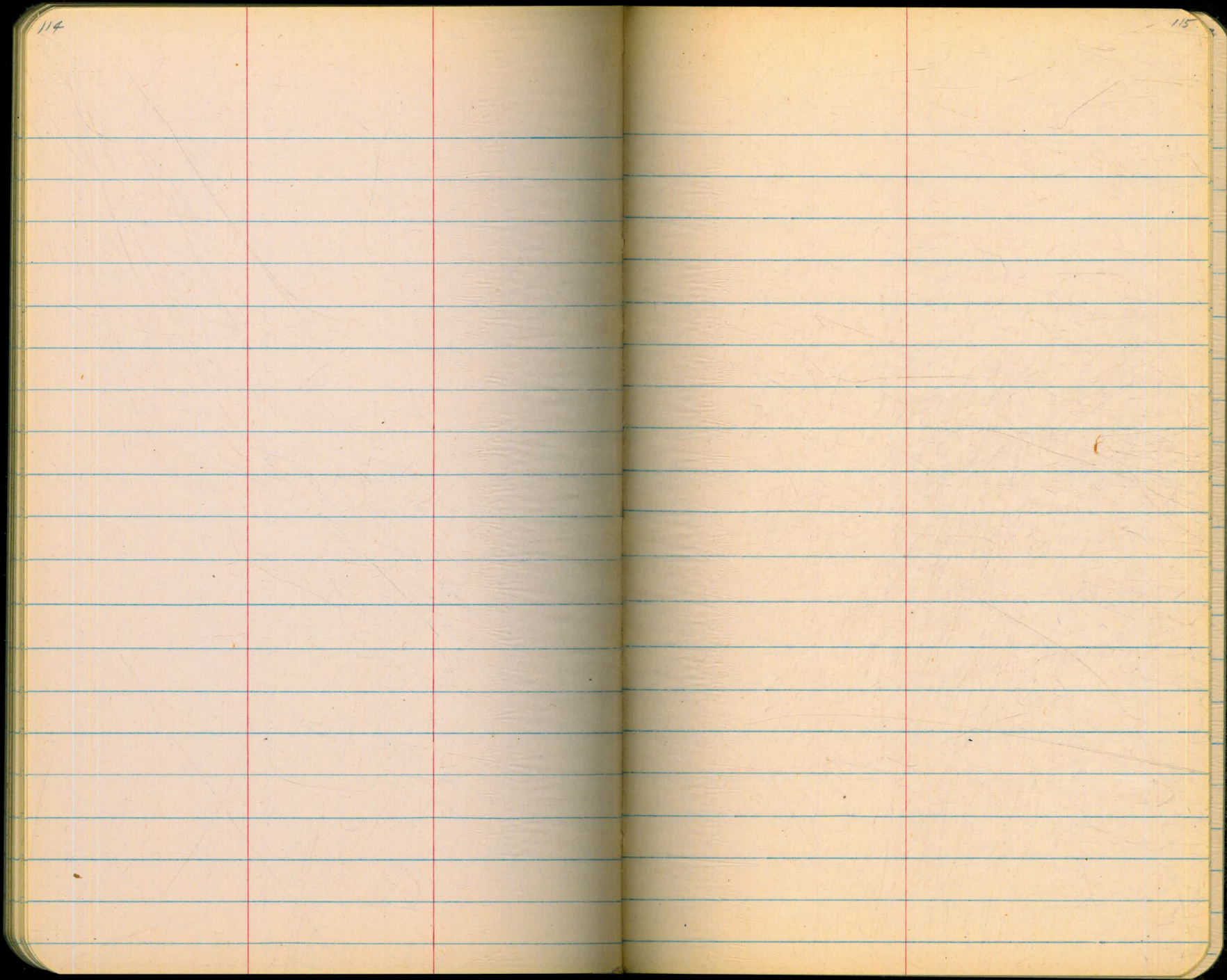




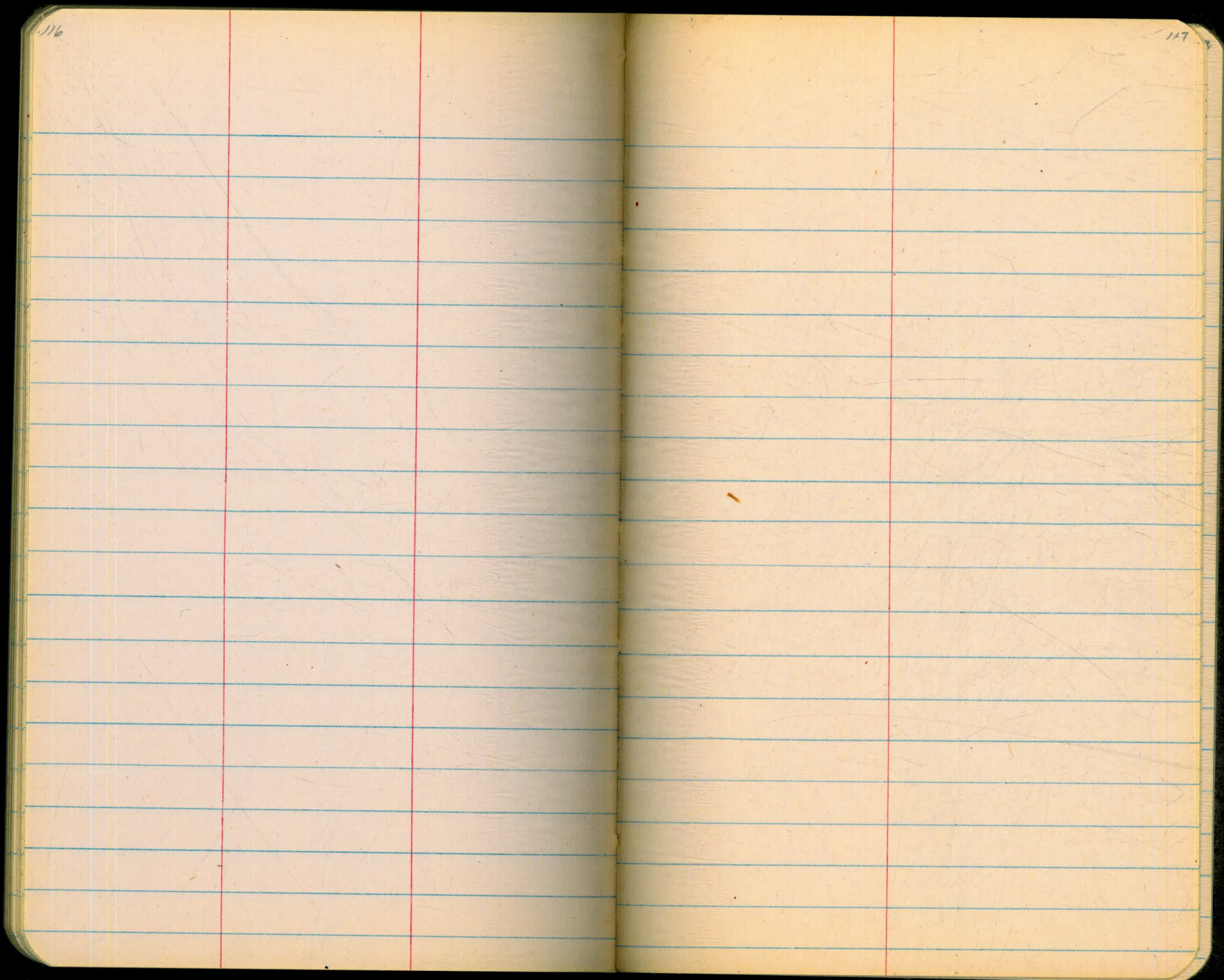


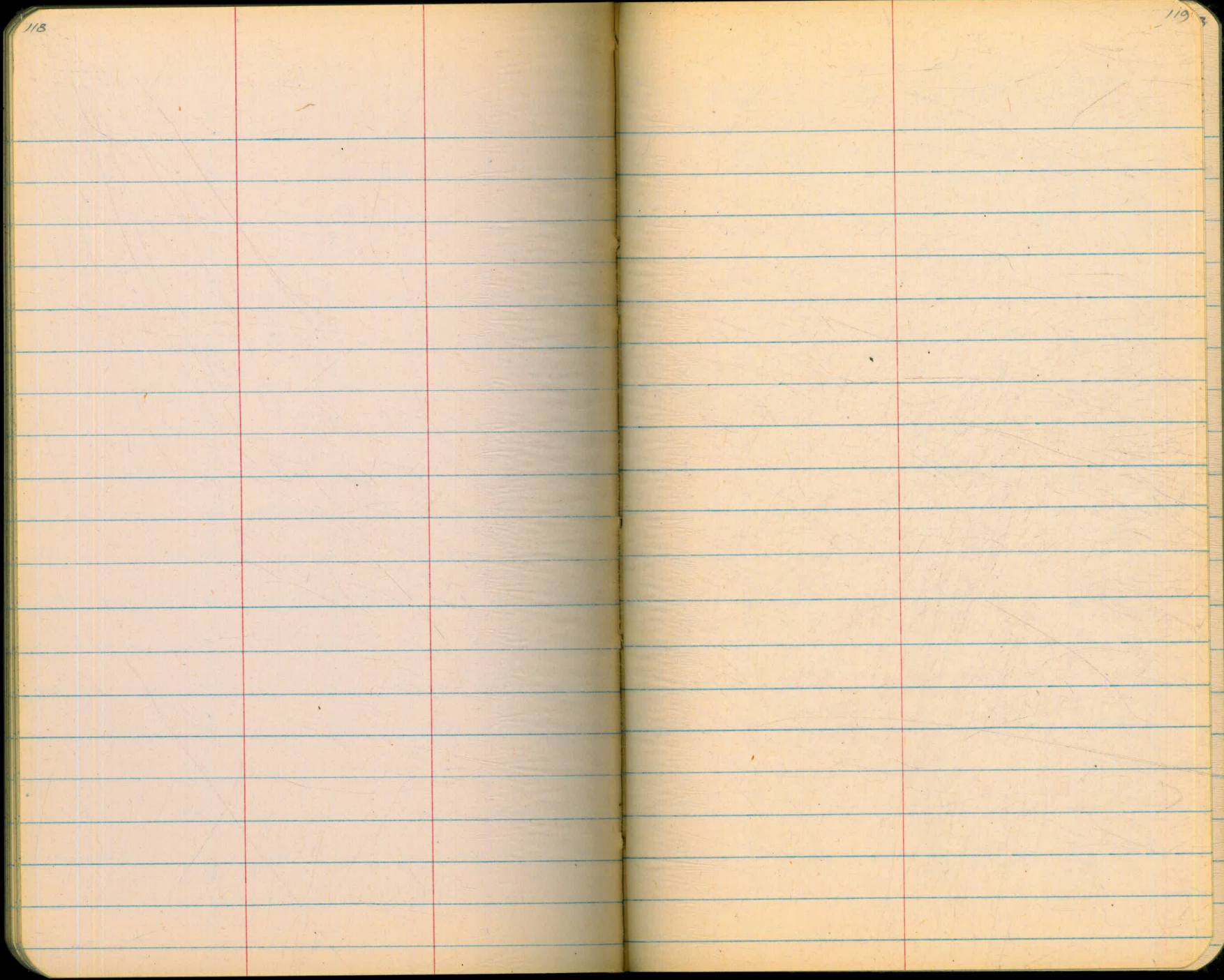














# BAYVIEW TO CHOLLAS

CONTRACTOR - UNITED CONCRETE PIPE CORPORATION

PROCESS - PRE-LOAD (GUNITED)

INSPECTORS: DON LEONARD

C. TRAYER

M.R. MARTELL









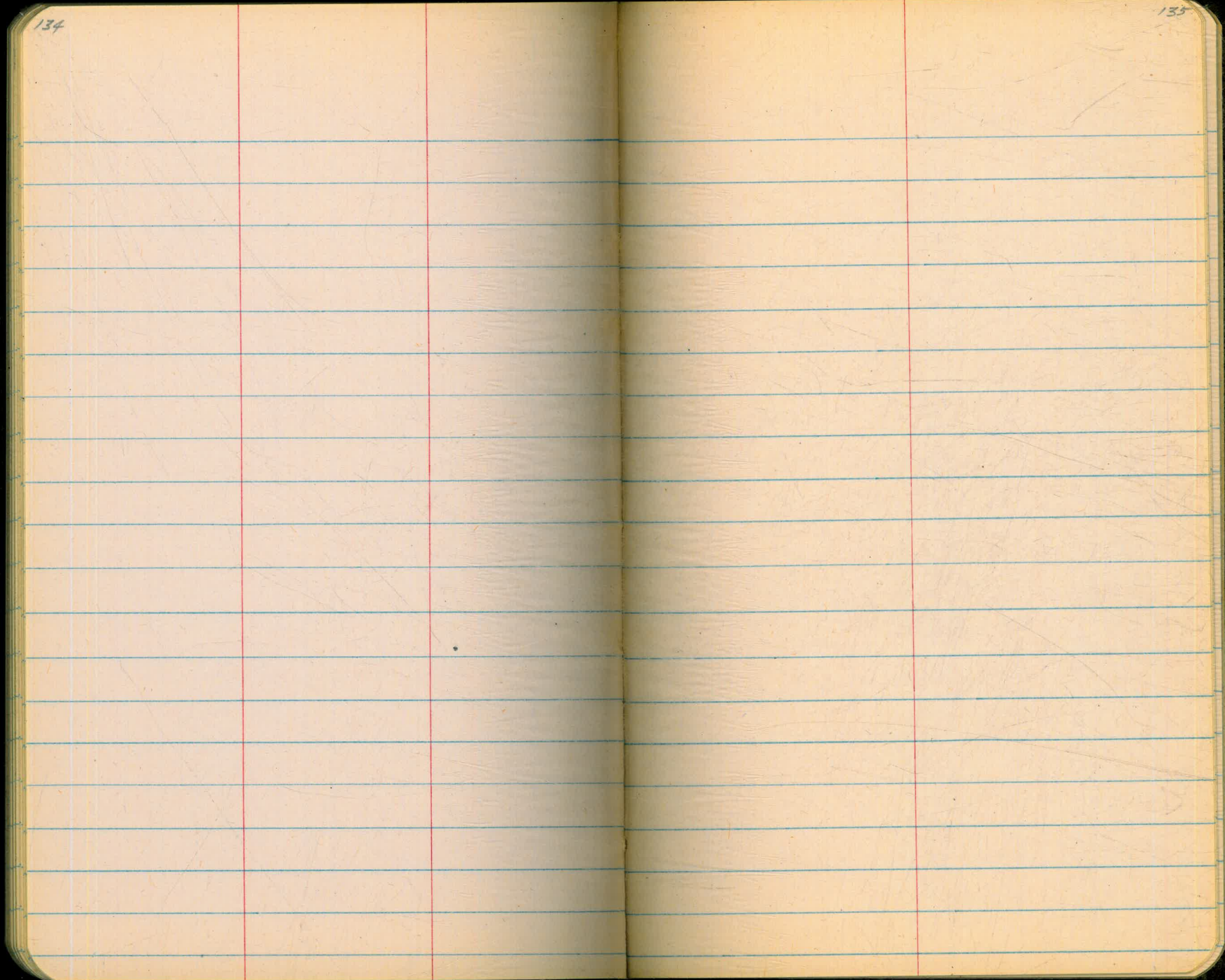






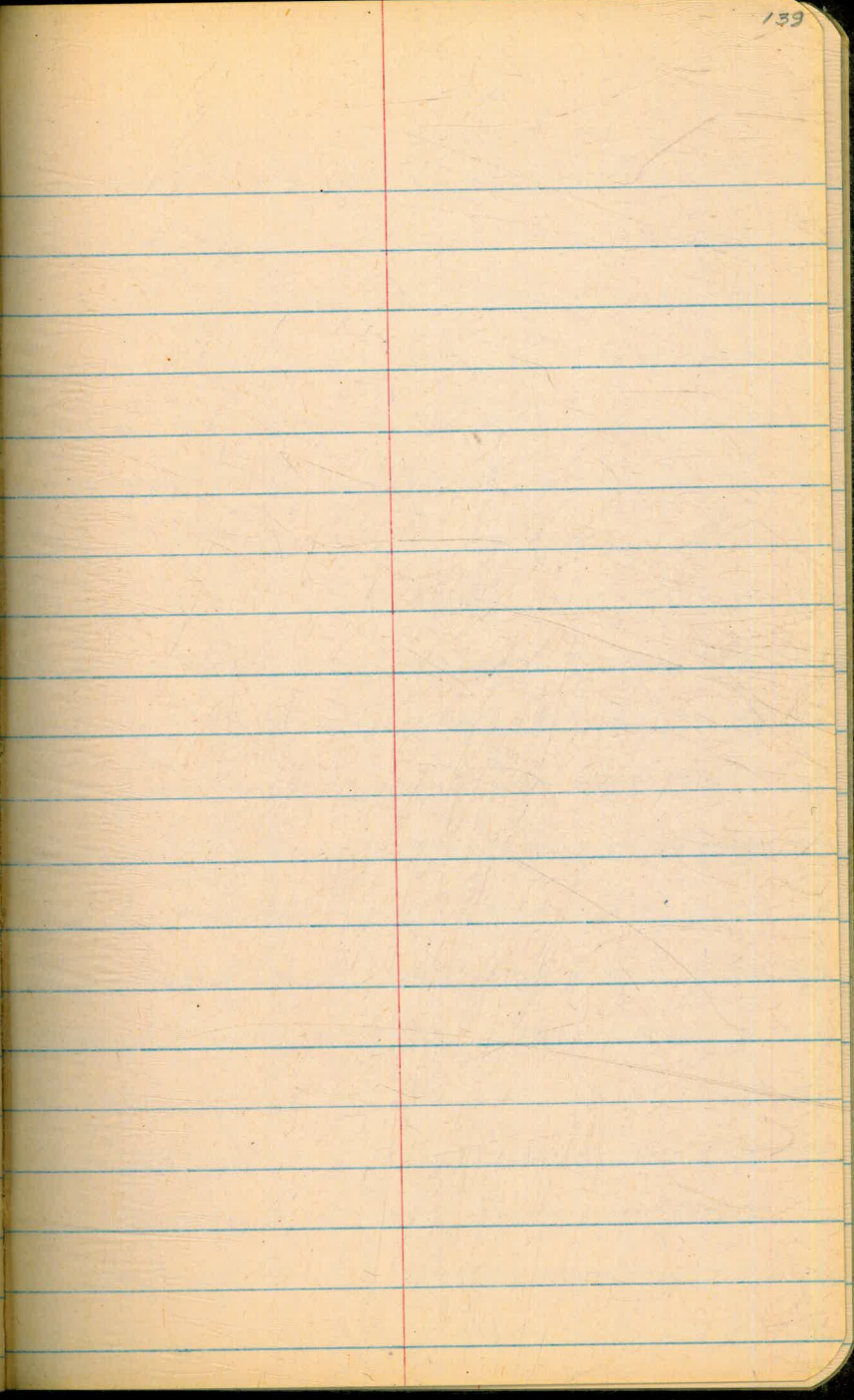
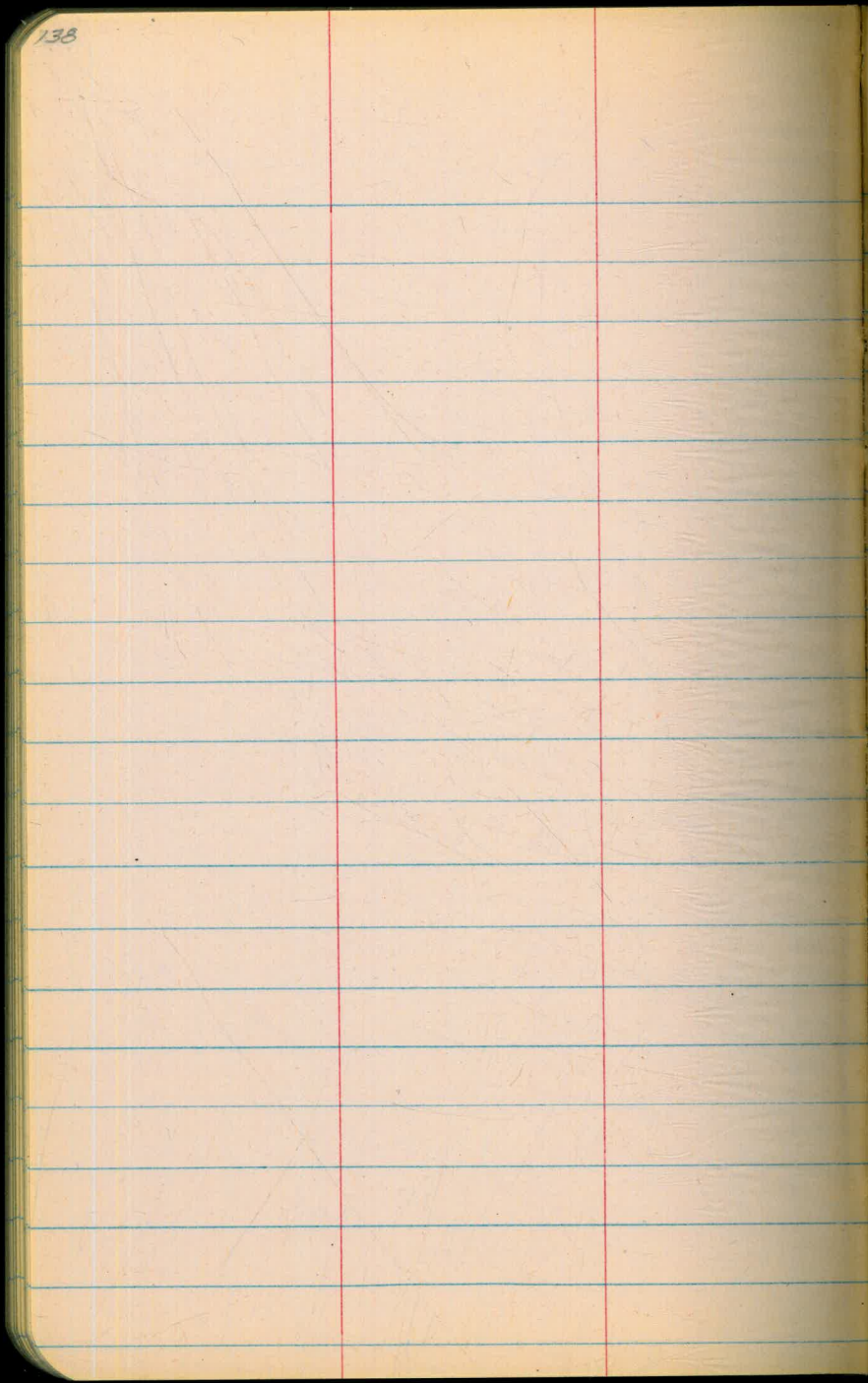














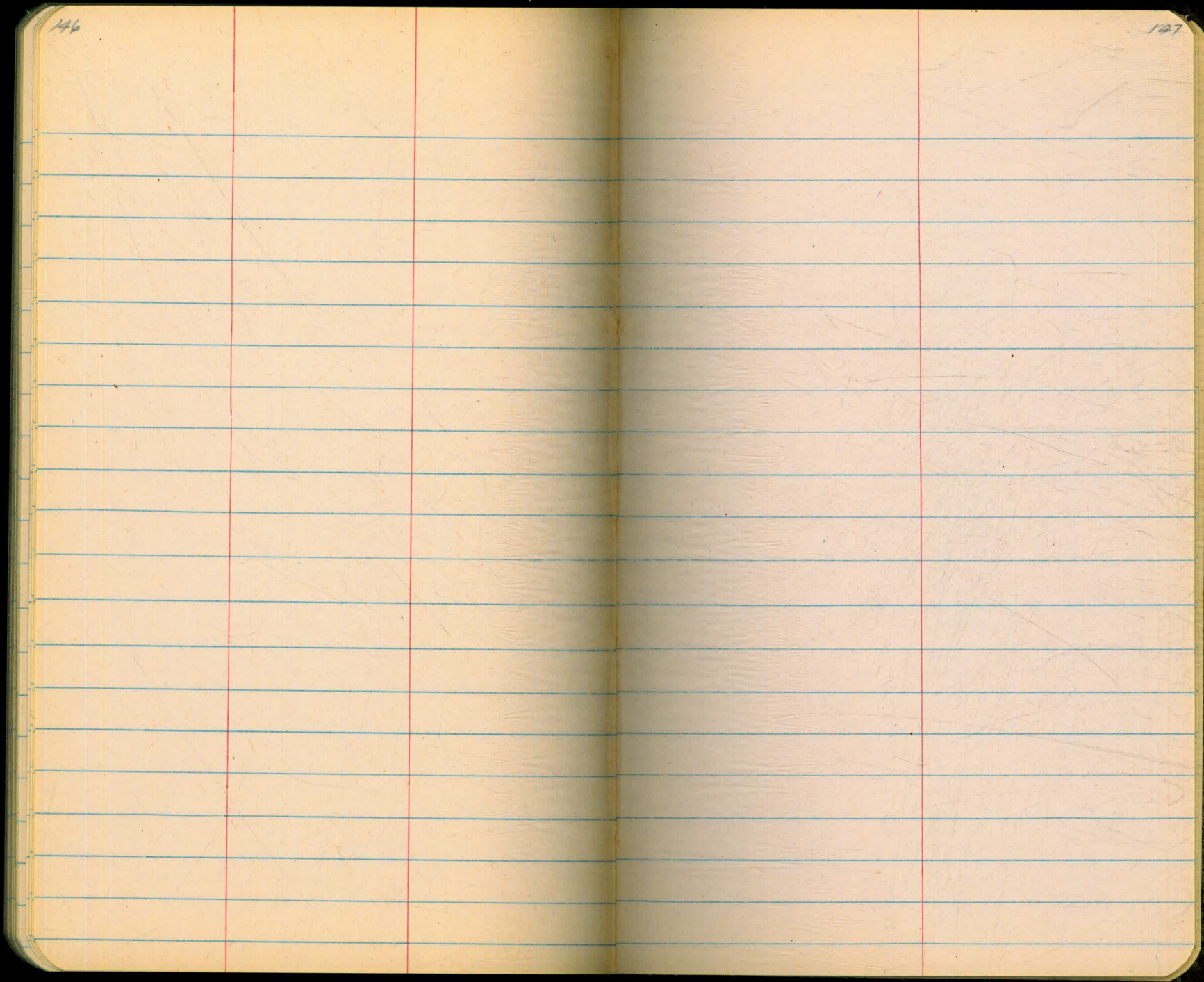
140

141







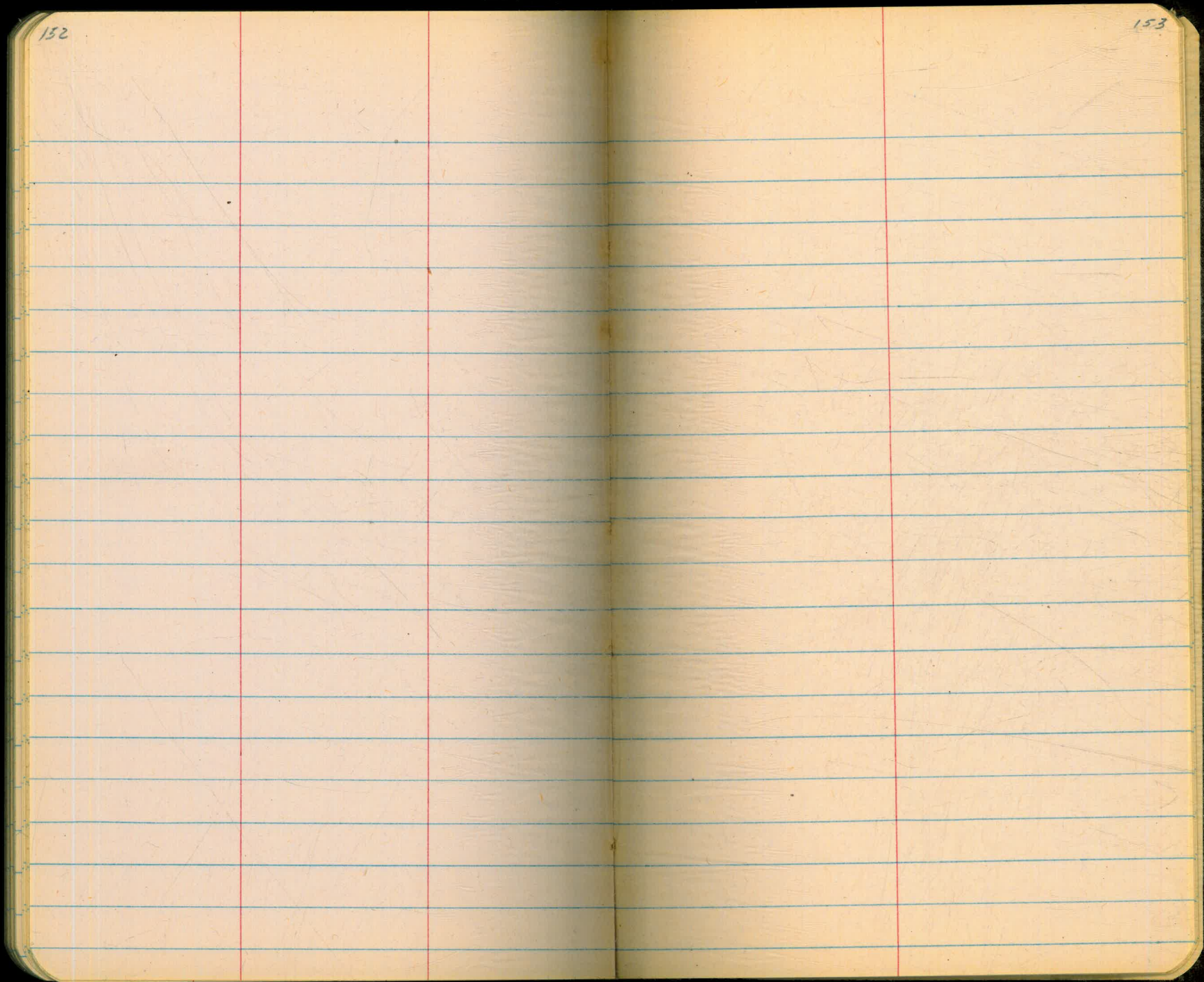


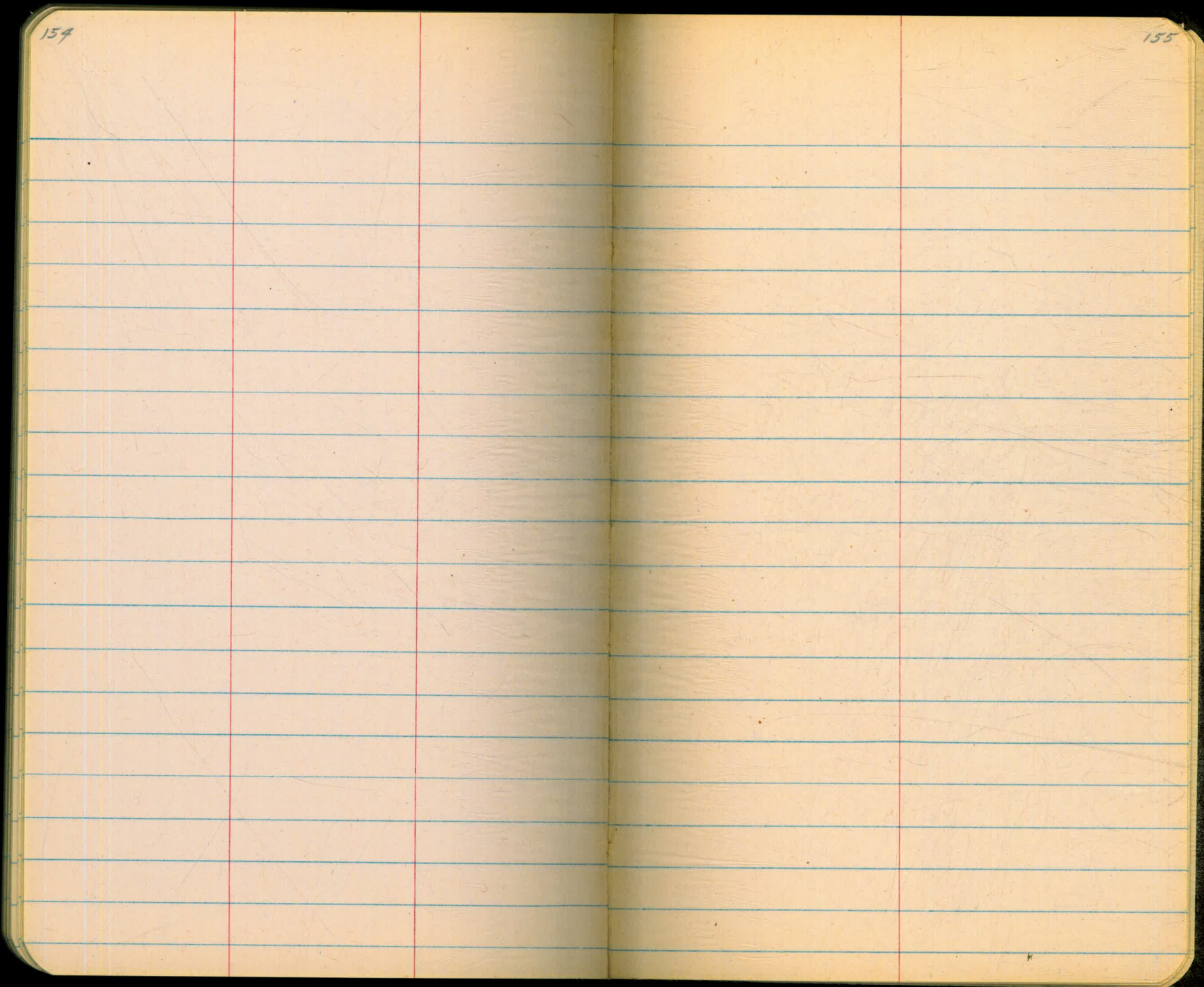


















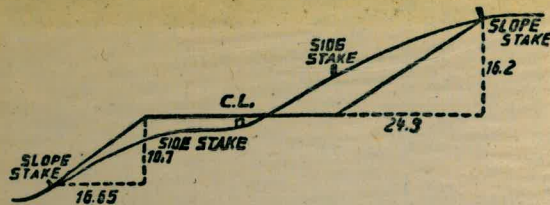


158

160.



Please Return to  
 City of San Diego Water Dept  
 Room 903 Civic Center



**DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.**  
 SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.25	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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