CHAPTER XVIII.

WEATHER RECORD FROM 1856 TO 1900, INCLUSIVE.

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The late William L. Foster, from the year 1856 to the end of a busy and eminent professional career, kept a continuous record of the weather. Upon the organization of the Government Weather Bureau he became one of the first voluntary observers, beginning in 1884 and continuing until his death, August 13, 1897, when he was succeeded by the writer in that capacity. Observations were made by Judge Foster at his residence in the city proper. For several summers previous to 1897, and continuously since June 22, 1897, they have been made in the western part of the city, at an elevation seventy-one feet higher than the former station, and at a distance of three miles therefrom.

Previous to 1868 self-registering maximum and minimum thermometers, though an invention of longer standing, were not used in connection with this record. Until that year, therefore, the daily maximum temperature could not be recorded, nor the daily mean temperature, which is half the sum of the maximum and the minimum; and it should be added that the minimum temperatures recorded were only approximate, being those obtained by observation in the early morning. Since August, 1868, the maximum, the minimum, and the mean temperatures have been recorded daily.

The monthly mean temperatures contained in the following tables are not, as will be seen, the half sum of the maximum and minimum of the month; but they are, in each case, the average of all the daily mean temperatures of the month. The mean temperature of the year is also the average of all the daily mean temperatures of the year.

The record of precipitation covers the entire period since 1856. These amounts are ascertained by means of the standard weather gauge, a cylindrical pail of about eight inches in diameter, whose contents, if water, are poured into a vessel of a diameter enough smaller to multiply the depth of the liquid by ten, rendering it easy to obtain a measurement accurate even to hundredths of an inch.

Up to November, 1884, snow had not been melted for the purpose of this record; but it was estimated that an inch of snow would, upon the average, contain nine one-hundredths of an inch of water. Since that date all snow and ice have been carefully melted and measured.

The following facts and figures have been gathered from the original records above described:

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1856	April.				2.00			2.00
	May.				5.14			5.14
	June.				2.59			2.59
	July.				2.35			2.35
	August.				13.32			13.32
	September.				3.60			3.60
	October.		26		2.05			2.05
	November.		10		.44	7	.58	1.92
	December.		—19			11	.92	.92
Year.								
1857	January.		—37			33	2.97	2.97
	February.		—14			6	.54	.54
	March.		4		.87	7	.63	1.50
	April.		14		5.32	4	.36	5.68
	May.		37		5.97			5.97
	June.		52		3.20			3.20
	July.	92	46		4.81			4.81
	August.		52		3.00			3.00
	September.		30		2.40			2.40
	October.		24		5.12			5.12
	November.		14		2.20	1	.09	2.29
	December.		8		1.17	12	1.08	2.25
Year.	1857		—37		34.06	63	5.67	39.73
1858	January.		—5		3.21	8	.62	3.83
	February.		—18			16	1.44	1.44
	March.		—5		.46	10	.90	1.36
	April.		26		1.62	4	.30	1.92
	May.		39		3.32			3.32
	June.		50		3.96			3.96
	July.	94	56		4.57			4.57
	August.		42		4.22			4.22
	September.	90	32		5.97			5.97
	October.		22		3.79			3.79
	November.		13		1.19	6	.54	1.73
	December.		—5		.14	13	1.17	1.31
Year.	1858		—18		32.45	57	4.97	37.42
1859	January.		—35			36	3.24	3.24
	February.		—9			13	1.17	1.17
	March.		2			10	.90	.90
	April.		26		.68	5	.45	1.13
	May.		38					
	June.		41		6.74			6.74
	July.		53		3.36			3.36
	August.		44		4.39			4.39
	September.		37		5.56			5.56
	October.		19		2.78			2.78
	November.		18		2.90			2.90
	December.		—19		.10	32	2.88	2.98
Year.	1859		—35		26.51	96	8.64	35.15

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1860	January.		—8			35	3.10	3.10
	February.		—8		.53	16	1.44	1.97
	March.		21		.46	6	.72	1.18
	April.		20		1.50			1.50
	May.		32		2.20			2.20
	June.		54		3.23			3.23
	July.		47		3.10			3.10
	August.		51		4.71			4.71
	September.		30		3.78			3.78
	October.		26		3.13			3.13
	November.		15		5.05			5.05
	December.		—5		.30	32	2.88	3.18
Year.	1860		—8		27.99	89	8.14	36.13
1861	January.		—14		.15	35	3.10	3.25
	February.		—26			9	.81	.81
	March.		—4		1.79	24	2.16	3.95
	April.		12		4.40	10	.90	5.30
	May.		26		3.83			3.83
	June.		41		1.66			1.66
	July.		50		5.61			5.61
	August.		46		3.52			3.52
	September.		40		3.05			3.05
	October.		30		6.86			6.86
	November.		18		2.50	7	.63	3.13
	December.		—12		.11	18	1.62	1.73
Year.	1861		—26		33.48	103	9.22	42.70
1862	January.		—2			33	2.97	2.97
	February.		—10			23	2.07	2.07
	March.		5		1.79	10	.90	2.69
	April.		20		2.39	6	.54	2.93
	May.		33		2.72			2.72
	June.		38		7.95			7.95
	July.		44		4.74			4.74
	August.		37		3.57			3.57
	September.		36		3.12			3.12
	October.		25		5.40			5.40
	November.		14		7.24	4	.36	7.60
	December.		—7		.86	11	.99	1.85
Year.	1862		—10		39.78	87	7.83	47.61
1863	January.		2		2.50	14	1.26	3.76
	February.		—20		2.21	14	1.26	3.47
	March.		—11		1.75	43	3.87	5.62
	April.		19		3.22	3	.27	3.49
	May.		35		2.52			2.52
	June.		42		4.12			4.12
	July.		53		6.82			6.82
	August.		41		6.35			6.35
	September.		28		2.69			2.69
	October.		19		5.15			5.15
	November.		20		6.73			6.73
	December.		—5		2.15	16	1.44	3.59
Year.	1863		—20		46.21	90	8.10	54.31

Temperature—*Degrees.*					Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1864	January.		—5		.60	6	.54	1.14
	February.		—16		.14	9	.83	.97
	March.		9		4.26	7	.63	4.89
	April.		31		2.39	16	1.44	3.83
	May.		36		2.37			2.37
	June.	98	39		.72			.72
	July.	101	48		1.31			1.31
	August.	103	52		5.71			5.71
	September.		38		3.33			3.33
	October.		26		4.30			4.30
	November.		10		5.17	7	.63	5.80
	December.		—13		2.03	26	2.34	4.37
Year.	1864	103	—16		32.33	71	6.41	38.74
1865	January.		—18		1.71	25	2.26	3.97
	February.		—4		.53	18	1.62	2.15
	March.		10		4.02			4.02
	April.		27		2.61			2.61
	May.		37		5.41			5.41
	June.		45		2.55			2.55
	July.		48		3.76			3.76
	August.	96	42		3.30			3.30
	September.	92	36		2.00			2.00
	October.		26		4.76	3	.27	5.03
	November.		21		1.55	1	.09	1.64
	December.		—3		1.45	14	1.26	2.71
Year.	1865		—18		33.65	61	5.50	39.15
1866	January.		—16			14	1.26	1.26
	February.		—5		2.84	5	.45	3.29
	March.		8		1.67	8	.72	2.39
	April.		30		1.35	1	.09	1.44
	May.		34		3.55			3.55
	June.		33		3.14			3.14
	July.	102	47		3.36			3.36
	August.		40		3.89			3.89
	September.		29		5.03			5.03
	October.		21		2.59			2.59
	November.		15		3.70	4	.36	4.06
	December.		—17		1.86	14	1.26	3.12
Year.	1866	102	—17		32.98	46	4.14	37.12
1867	January.		—20			22	2.08	2.08
	February.		—2		1.05	10	.90	1.95
	March.		3		1.20	21	1.89	3.09
	April.		17		3.43	1	.09	3.52
	May.		24		3.85			3.85
	June.		42		2.05			2.05
	July.		47		4.59			4.59
	August.		41		9.90			9.90
	September.		29		1.54			1.54
	October.		20		3.42			3.42
	November.		3		2.05	4	.36	2.41
	December.		—16		.82	11	.99	1.81
Year.	1867		—20		33.90	69	6.31	40.21

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1868	January.		—7		.22	26	2.34	2.56
	February.		—19		.05	11	.99	1.04
	March.		—8		.65	17	1.53	2.18
	April.		10		1.10	16	1.44	2.54
	May.		28		6.81			6.81
	June.		40		2.52			2.52
	July.		51		3.05			3.05
	August.		45		2.89			2.89
	September.	81	29	56.5	9.92			9.92
	October.	76	13	44.6	.36	3	.27	.63
	November.	61	12	32.6	5.14	4	.36	5.50
	December.	38	—10	20.2	.55	12	1.08	1.63
Year.	1868		—19		33.26	89	8.01	41.27
1869	January.	58	—15	25.2	.74	21	1.89	2.63
	February.	59	—6	30.4	.37	26	2.34	2.71
	March.	70	—20	25.7	2.79	19	1.71	4.50
	April.	78	20	45.3	1.45			1.45
	May.	93	25	56.0	3.18			3.18
	June.	88	40	63.2	1.54			1.54
	July.	91	45	69.5	1.14			1.14
	August.	89	41	66.5	2.01			2.01
	September.	89	36	63.2	3.46			3.46
	October.	85	20	48.6	11.65			11.65
	November.	73	14	37.7	2.10	1	.09	2.19
	December.	54	—10	28.2	2.60	17	1.53	4.13
Year.	1869	93	—20	46.6	33.03	86	7.56	40.59
1870	January.	57	2	29.4	4.30	17	1.53	5.83
	February.	58	—2	22.7	1.50	30	2.70	4.20
	March.	67	0	29.6	1.13	20	1.80	2.93
	April.	86	22	47.0	6.15	1	.09	6.24
	May.	89	32	55.8	1.74			1.74
	June.	99	46	69.6	2.20			2.20
	July.	100	46	72.3	1.40			1.40
	August.	97	38	72.3	1.23			1.23
	September.	90	32	61.9	1.94			1.94
	October.	80	18	51.8	2.17	1	.09	2.26
	November.	72	20	40.6	2.39			2.39
	December.	58	—5	28.6	1.37	8	.72	2.09
Year.	1870	100	—5	48.6	27.52	77	6.93	34.45
1871	January.	57	—16	19.3		9	.81	.81
	February.	58	—16	23.9	.93	16	1.43	2.36
	March.	68	16	39.5	3.18	5	.45	3.63
	April.	92	19	46.2	4.70			4.70
	May.	95	28	56.	3.04			3.04
	June.	95	37	63.4	2.47			2.47
	July.	88	41	67.1	4.20			4.20
	August.	88	41	68.1	5.02			5.02
	September.	86	25	56.	1.30			1.30
	October.	78	20	49.6	4.73			4.73
	November.	68	—2	33.0	2.75	11	.99	3.74
	December.	57	—15	21.3	1.90	16	1.44	3.34
Year.	1871	95	—16	45.4	34.22	57	5.12	39.34

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1872	January.	50	—6	24.1	.60	8	.72	1.32
	February.	68	—8	24.4		17	1.53	1.53
	March.	60	—16	23.5	.80	16	1.44	2.24
	April.	85	24	45.8	1.45			1.45
	May.	83	38	59.	2.49			2.49
	June.	98	42	68.7	4.61			4.61
	July.	96	50	75.6	7.72			7.72
	August.	97	49	73.4	7.00			7.00
	September.	96	40	64.2	4.32			4.32
	October.	78	24	50.4	4.63			4.63
	November.	66	10	38.2	3.30	18	1.62	4.92
	December.	47	—20	18.1	.25	33	2.97	3.22
Year.	1872	98	—20	47.2	37.17	92	8.28	45.45
1873	January.	47	—26	17.1	2.70	19	1.71	4.41
	February.	54	—12	24.4		22	1.98	1.98
	March.	61	—7	28.4	.72	21	1.89	2.61
	April.	74	23	40.3	1.77	2	.18	1.95
	May.	88	28	55.6	2.15			2.15
	June.	90	42	65.	.89			.89
	July.	93	50	71.1	4.08			4.08
	August.	89	45	67.1	1.85			1.85
	September.	84	35	59.9	4.06			4.06
	October.	78	27	52.3	6.05			6.05
	November.	57	—9	28.8	.65	25	2.25	2.90
	December.	58	—8	26.4	.78	26	2.34	3.12
Year.	1873	93	—26	44.8	25.70	115	10.35	36.05
1874	January.	66	—14	24.8	1.82	14	1.16	2.98
	February.	55	—28	20.3	1.55	18	1.62	3.17
	March.	64	—3	33.2	.33	4	.36	.69
	April.	68	7	37.3	1.30	35	3.15	4.45
	May.	90	30	56.	4.19			4.19
	June.	93	44	65.4	4.74			4.74
	July.	92	50	70.3	6.54			7.54
	August.	88	41	67.	1.95			1.95
	September.	88	39	62.9	2.40			2.40
	October.	83	24	51.8	1.37			1.37
	November.	66	9	37.4	1.70	7	.63	2.33
	December.	55	—14	25.2	.20	7	.63	.83
Year.	1874	93	—28	46.1	28.09	85	7.55	35.64
1875	January.	42	—26	12.2		34	3.06	3.06
	February.	63	—34	14.4	1.03	15	1.35	2.38
	March.	63	—16	27.	1.15	34	3.06	4.21
	April.	71	14	40.6	2.63	6	.54	3.17
	May.	89	33	57.3	2.77			2.77
	June.	90	38	65.6	3.97			3.97
	July.	90	45	69.5	2.43			2.43
	August.	89	50	71.	5.31			5.31
	September.	90	29	59.1	2.92			2.92
	October.	75	22	49.8	6.17			6.17
	November.	64	—17	31.6	1.95	13	1.17	3.12
	December.	60	—24	26.7	.28	8	.72	1.00
Year.	1875	90	— 34	43.9	30.61	110	9.90	40.51

		TEMPERATURE—*Degrees.*			PRECIPITATION—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1876	January.	72	—10	26.8	1.47	8	.72	2.19
	February.	56	—19	23.9	2.67	32	2.88	5.55
	March.	73	0	33.8	5.43	27	2.43	7.86
	April.	72	21	43.6	1.20	12	1.08	2.28
	May.	87	28	56.9	3.22			3.22
	June.	88	41	70.5	4.89			4.89
	July.	96	46	74.9	4.73			4.73
	August.	97	45	71.3	.42			.42
	September.	93	42	59.3	3.82			3.82
	October.	69	22	46.7	.95			.95
	November.	80	18	41.9	2.56			2.56
	December.	52	—20	18.9		43	3.87	3.87
Year.	1876	97	—20	47.4	31.36	122	10.98	42.34
1877	January.	56	—29	15.8		22	1.98	1.98
	February.	65	1	32.3	.40			.40
	March.	64	5	33.6	4.58	7	.63	5.21
	April.	74	26	48.	3.26			3.26
	May.	86	27	56.2	2.98			2.98
	June.	88	47	67.4	2.63			2.63
	July.	90	53	71.4	4.77			4.77
	August.	87	51	72.	4.37			4.37
	September.	87	37	64.6	.85			.85
	October.	84	23	50.9	7.62			7.62
	November.	69	11	42.6	5.93	3	.27	6.20
	December.	58	3	33.4	.64	2	.18	.82
Year.	1877	90	—29	49.1	38.03	34	3.06	41.09
1878	January.	54	—35	24.4	2.40	19	1.71	4.11
	February.	64	—15	28.6	2.02	24	2.16	4.18
	March.	72	6	38.2	2.10	2	.18	2.28
	April.	79	32	50.8	6.70			6.70
	May.	90	32	56.6	1.86			1.86
	June.	94	38	63.8	5.10			5.10
	July.	100	49	73.8	1.84			1.84
	August.	89	46	68.6	4.06			4.06
	September.	89	32	62.9	.71			.71
	October.	84	27	55.7	4.09			4.09
	November.	61	14	38.7	5.76			5.76
	December.	58	5	30.3	5.15	14	1.26	6.41
Year.	1878	100	—35	49.5	41.79	59	5.31	47.10
1879	January.	49	—10	15.1		27	2.43	2.43
	February.	48	—3	20.2	1.45	16	1.44	2.89
	March.	56	0	30.5	.25	28	2.52	2.77
	April.	70	14	41.	1.90	12	1.08	2.98
	May.	93	30	61.5	4.51			4.51
	June.	94	40	64.4	4.76			4.76
	July.	93	50	70.5	4.29			4.29
	August.	91	45	67.4	4.39			4.39
	September.	88	30	59.8	3.28			3.28
	October.	92	21	57.5	.79			.79
	November.	72	1	38.2	1.95	23	2.07	4.02
	December.	60	—4	29.5	1.97	20	1.80	3.77
Year.	1879	94	—10	46.5	29.54	126	11.34	40.88

	TEMPERATURE—*Degrees.*				PRECIPITATION—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1880	January.	62	—7	31.3	3.15	12	1.08	4.23
	February.	68	—10	32.7	1.38	12	1.08	2.46
	March.	67	7	32.5	.20	12	1.08	1.28
	April.	80	22	48.3	2.62	1	.09	2.71
	May.	95	30	64.8	1.63			1.63
	June.	94	44	67.	1.33			1.33
	July.	97	48	71.	3.55			3.55
	August.	92	42	68.1	1.47			1.47
	September.	93	34	63.6	3.12			3.12
	October.	76	26	50.8	3.98			3.98
	November.	70	4	36.	2.01			2.01
	December.	56	—8	25.3	.64	18	1.62	2.26
Year.	1880	97	—10	49.3	25.08	55	4.95	30.03
1881	January.	46	—19	17.5	.61	29	2.61	3.22
	February.	55	—11	24.5	2.35	13	1.17	3.52
	March.	63	21	37.5	1.93	19	1.71	3.64
	April.	83	14	44.	.55	4	.36	.91
	May.	90	28	60.9	3.28			3.28
	June.	84	36	61.1	3.34			3.34
	July.	94	50	69.9	4.38			4.38
	August.	95	50	69.3	1.25			1.25
	September.	96	43	66.9	3.52			3.52
	October.	85	25	51.4	2.96			2.96
	November.	69	7	40.2	2.74	5	.45	3.19
	December.	63	5	34.6	5.39	5	.45	5.84
Year.	1881	96	—19	48.3	32.30	75	6.75	39.05
1882	January.	48	—22	19.7	.67	32	2.88	3.55
	February.	59	—3	26.4	.48	38	3.42	3.90
	March.	60	9	34.5	2.13	6	.54	2.67
	April.	67	13	42.	.69	4	.36	1.05
	May.	79	29	50.7	4.07			4.07
	June.	90	43	65.1	3.98			3.98
	July.	92	51	71.3	1.73			1.73
	August.	98	45	71.3	.35			.35
	September.	90	39	63.7	7.22			7.22
	October.	82	26	53.8	1.41			1.41
	November.	71	12	38.6	.19	10	.90	1.09
	December.	57	—6	26.	.53	13	1.17	1.70
Year.	1882	98	—22	47.	23.45	103	9.27	32.72
1883	January.	50	—14	17.9	.40	15	1.35	1.75
	February.	58	—11	22.4	.18	23	2.07	2.25
	March.	60	—16	25.2	.40	11	.99	1.39
	April.	77	14	44.2	1.82	6	.54	2.36
	May.	88	26	56.6	3.04			3.04
	June.	87	42	69.	2.04			2.04
	July.	93	44	69.3	5.80			5.80
	August.	89	39	65.6	1.37			1.37
	September.	82	34	58.6	1.96			1.96
	October.	83	21	47.5	3.67			3.67
	November.	72	12	41.1	1.87			1.87
	December.	55	—16	25.4	.75	18	1.62	2.37
Year.	1883	93	—16	45.3	23.30	73	5.57	29.87

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1884	January.	60	—12	21.3	2.82	14	1.26	4.08
	February.	56	4	28.2	2.98	28	2.52	5.50
	March.	61	—14	30.5	2.51	20	1.80	4.31
	April.	73	25	44.5	2.73	8	.72	3.45
	May.	84	30	54.8	3.07			3.07
	June.	90	38	66.6	.93			.93
	July.	91	47	67.	2.14			2.14
	August.	91	44	68.4	3.62			3.62
	September.	88	35	62.3	.76			.76
	October.	80	26	49.1	1.79	3	.20	1.99
	November.	63	13	37.2	2.18	7	.59	2.77
	December.	59	—17	28.	2.51	18	1.46	3.97
Year.	1884	91	—17	46.5	28.04	98	8.55	36.59
1885	January.	61	—17	21.1	2.25	21	2.20	4.45
	February.	44	—11	15.7	2.00	13	1.50	3.50
	March.	56	—11	23.3	.15	11	.73	.88
	April.	88	19	47.7	2.44	1	.10	2.54
	May.	85	27	55.4	2.18			2.18
	June.	88	39	64.5	4.85			4.85
	July.	91	50	69.3	2.15			2.15
	August.	84	39	64.4	5.32			5.32
	September.	82	36	56.6	.96			.96
	October.	73	27	49.4	3.63			3.63
	November.	63	4	39.5	2.97	6	.68	3.65
	December.	58	3	28.2	2.42	15	1.18	3.60
Year.	1885	91	—17	44.7	31.32	67	6.39	37.71
1886	January.	57	—20	23.5	2.94	21	1.98	4.92
	February.	65	—13	23.1	3.84	4	.43	4.27
	March.	60	—8	31.9	2.10	12	1.17	3.27
	April.	86	23	50.4	1.58	T	.08	1.66
	May.	80	32	56.	2.22			2.22
	June.	79	43	62.1	2.48			2.48
	July.	92	46	67.7	2.56			2.56
	August.	89	42	66.2	3.49			3.49
	September.	84	35	59.2	4.25			4.25
	October.	78	21	49.8	2.66			2.66
	November.	72	17	39.1	3.24	5	.57	3.81
	December.	49	—1	23.7	1.62	22	1.68	3.30
Year.	1886	92	—20	46.2	32.98	64	5.91	38.89
1887	January.	49	—19	19.1	1.18	27	2.17	3.35
	February.	50	—8	24.1	2.25	29	2.61	4.86
	March.	57	—4	28.1	1.54	20	1.50	3.04
	April.	77	14	41.4	2.36	8	.58	2.94
	May.	92	37	60.3	2.33			2.33
	June.	89	41	64.1	4.56			4.56
	July.	93	56	73.7	7.84			7.84
	August.	83	45	64.5	7.68			7.68
	September.	79	32	56.4	.82			.82
	October.	70	22	48.8	1.71			1.71
	November.	72	16	37.9	3.70			3.70
	December.	57	—2	29.7	2.56	16	1.06	3.62
Year.	1887	93	—19	45.8	38.53	100	7.92	46.45

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1888	January.	40	—16	14.8	1.34	38	3.59	4.93
	February.	56	—12	23.5	2.17	17	1.52	3.69
	March.	56	2	28.8	2.02	32	2.90	4.92
	April.	86	15	41.5	2.07	8	.77	2.84
	May.	81	29	54.5	4.48			4.48
	June.	94	42	66.	2.57			2.57
	July.	85	49	66.7	.96			.96
	August.	89	45	66.8	3.67			3.67
	September.	76	28	57.2	10.97			10.97
	October.	64	26	43.8	5.60	T	.03	5.63
	November.	74	3	38.8	3.78	5	.37	4.15
	December.	54	—4	29.9	2.83	5	.69	3.52
Year.	1888	94	—16	44.4	42.46	105	9.87	52.33
1889	January.	56	—3	29.2	2.11	13	1.71	3.82
	February.	50	—14	21.2	.94	12	.84	1.78
	March.	61	8	35.3	2.21	4	.30	2.51
	April.	79	23	48.6	1.79	3	.30	2.09
	May.	92	33	59.6	2.46			2.46
	June.	85	44	66.6	4.21			4.21
	July.	85	51	67.8	5.63			5.63
	August.	82	46	64.7	1.57			1.57
	September.	82	37	61.1	3.86			3.86
	October.	71	17	45.1	4.21			4.21
	November.	66	16	40.3	4.83	2	.15	4.98
	December.	58	0	31.4	3.20	9	.68	3.88
Year.	1889	92	—14	47.7	37.02	43	3.98	41.00
1890	January.	61	—7	25.	1.47	13	1.41	2.88
	February.	55	—7	28.1	2.92	12	1.28	4.20
	March.	61	—7	30.1	2.46	29	3.23	5.69
	April.	75	19	43.8	1.88			1.88
	May.	80	33	57.2	5.05			5.05
	June.	87	42	62.4	2.56			2.56
	July.	91	45	68.8	3.98			3.98
	August.	88	46	66.2	3.56			3.56
	September.	80	31	60.5	4.65			4.65
	October.	75	29	47.5	7.76			7.76
	November.	64	8	35.6	1.42	T	.07	1.49
	December.	39	—11	17.1		27	3.83	3.83
Year.	1890	91	—11	45.3	37.71	81	9.82	47.53
1891	January.	46	—6	24.3	3.93	22	1.78	5.71
	February.	52	—9	25.9	1.70	20	1.84	3.54
	March.	52	—4	30.1	3.27	12	.92	4.19
	April.	80	18	46.2	1.17	10	1.24	2.41
	May.	88	32	55.2	2.34			2.34
	June.	96	38	63.5	3.32			3.32
	July.	90	46	66.5	3.34			3.34
	August.	87	45	67.6	2.95			2.95
	September.	85	39	63.5	2.09			2.09
	October.	83	22	47.3	2.63			2.63
	November.	63	4	37.3	1.63	1	.10	1.73
	December.	56	5	34.7	3.91	2	.20	4.11
Year.	1891	96	—9	46.9	32.28	67	6.08	38.36

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1892	January.	48	—8	22.6	2.72	15	1.26	3.98
	February.	50	—5	24.7		15	1.70	1.70
	March.	53	7	29.7	.91	13	1.09	2.00
	April.	71	22	45.8	.76			.76
	May.	78	27	53.8	6.24	T		6.24
	June.	93	40	68.2	3.00			3.00
	July.	91	46	69.5	2.50			2.50
	August.	90	52	67.5	9.00			9.00
	September.	76	34	58.8	1.98			1.98
	October.	73	28	48.	1.29			1.29
	November.	62	15	35.5	3.25	9	1.08	4.33
	December.	41	—7	21.	.60	3	.44	1.04
Year.	1892	93	—8	45.5	32.25	55	5.57	37.82
1893	January.	45	—15	12.1	1.68	12	.91	2.59
	February.	50	—12	19.5	.70	59	4.78	5.48
	March.	48	0	27.5	2.17	2	.41	2.58
	April.	62	14	37.8	1.97	5	.50	2.47
	May.	90	32	53.4	4.15			4.15
	June.	88	45	64.2	2.18			2.18
	July.	86	45	66.1	3.13			3.13
	August.	86	45	65.	4.11			4.11
	September.	75	33	53.5	1.38			1.38
	October.	71	19	49.	4.77			4.77
	November.	59	8	33.4	2.14	5	.39	2.53
	December.	45	—12	19.3	2.07	19	1.96	4.03
Year.	1893	90	—15	41.9	30.45	102	8.95	39.40
1894	January.	45	—8	20.	1 21	16	1.46	2.67
	February.	49	—19	19.9	.03	22	2.22	2.25
	March.	70	11	36.	.53	2	.63	1.16
	April.	73	13	44.9	1.01	5	.63	1.64
	May.	84	33	55.2	4.79			4.79
	June.	91	40	66.1	1.84			1.89
	July.	96	45	70.4	2.89			2.89
	August.	90	35	64.5	.65			.65
	September.	87	32	60.7	2.26			2.26
	October.	71	28	50.7	2 79			2.79
	November.	61	9	33.3	.77	9	1.01	1.78
	December.	53	—10	25.6	.70	20	2.17	2.87
Year.	1894	96	—19	45.8	19.52	74	8.12	27.64
1895	January.	42	—9	20.3	.58	18	2.67	3.25
	February.	45	—15	17.8		10	.56	.56
	March.	50	—1	29.6	1.13	13	1.14	2.27
	April.	79	22	44.6	4.23	3	.29	4.52
	May.	91	31	61.9	2.12			2.12
	June.	95	45	68.5	1.98			1.98
	July.	92	41	66.7	3.52			3.52
	August.	89	38	66.1	3.85			3.85
	September.	91	27	60.5	2 34			2.34
	October.	68	18	44.5	4.09			4.09
	November.	72	13	39.	5.12	4	.47	5.59
	December.	58	—13	28.8	3.27	9	.74	4.01
Year.	1895	95	—15	45.8	32.23	57	5.87	38.10

Temperature—*Degrees.*					Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1896	January.	43	—17	18.8	.04	10	1.19	1.23
	February.	47	—21	22.6	3.77	24	2.03	5.80
	March.	56	—5	28.1	3.43	31	3.12	6.55
	April.	83	21	46.5	.72	3	.30	1.02
	May.	91	32	59.2	3.34			3.34
	June.	89	34	61.2	2.35			2.35
	July.	94	45	70.1	3.10			3.10
	August.	93	38	67.6	3.75			3.75
	September.	87	33	58.3	4.92			4.92
	October.	72	24	46.	4.00			4.00
	November.	71	14	41.2	2.77	2	.20	2.97
	December.	49	—6	23.8	.81	1	.15	.96
Year.	1896	94	—21	45.3	33.00	71	6.99	39.99
1897	January.	52	—7	24.1	.99	27	2.73	3.72
	February.	47	—11	25.4	.85	16	1.64	2.49
	March.	53	—10	31.5	1.82	16	2.05	3.87
	April.	85	17	47.3	2.38			2.38
	May.	78	34	57.7	3.93			3.93
	June.	89	34	60.3	8.35			8.35
	July.	98	42	70.5	8.56			8.56
	August.	85	37	64.4	3.58			3.58
	September.	90	28	57.3	1.22			1.22
	October.	83	18	47.3	.58			.58
	November.	62	—1	34.6	4.74	10.5	1.85	6.59
	December.	59	—9	26.4	4.19	9.3	.55	4.74
Year.	1897	98	—11	45.7	41.19	78.8	8.82	50.01
1898	January.	50	—24	19.7	1.79	33.7	3.15	4.94
	February.	52	—32	24.9	.83	22.0	3.43	4.26
	March.	62	8	37.3	.57	2.9	.27	.84
	April.	70	12	41.6	3.95	5.5	.29	4.24
	May.	83	27	55.4	2.92			2.92
	June.	89	35	65.6	3.10			3.10
	July.	96	38	70.9	1.31			1.31
	August.	92	39	69.4	4.74			4.74
	September.	89	31	61.3	5.89			5.89
	October.	83	22	50.3	5.56			5.56
	November.	58	13	37.0	4.13	18.3	1.83	5.96
	December.	48	—19	23.3	1.32	11.8	.94	2.26
Year.	1898	96	—32	46.5	36.11	94.2	9.91	46.02
1899	January.	52	—17	20.6	.99	8.8	1.56	2.55
	February.	51	—18	20.7	.40	24.0	2.00	2.40
	March.	56	0	28.0	1.85	38.1	4.03	5.88
	April.	86	14	42.9	.94	2.2	.25	1.19
	May.	88	28	55.5	.32			.32
	June.	94	37	66.4	1.04			1.04
	July.	97	39	69.5	4.35			4.35
	August.	91	38	66.9	1.93			1.93
	September.	81	28	57.2	4.38			4.38
	October.	77	22	49.4	.83			.83
	November.	61	11	34.5	1.64	5.3	.71	2.35
	December.	60	—2	28.6	1.29	.6	.06	1.35
Year.	1899	97	—18	45.2	19.96	79.0	8.61	28.57

		Temperature—*Degrees.*			Precipitation—*Inches.*			
		Maximum.	Minimum.	Mean.	Rainfall.	Snowfall.	Melted snow.	Total.
1900	January.	52	—16	20.9	2.28	27.6	2.60	4.88
	February.	51	—16	21.5	3.96	13.2	1.09	5.05
	March.	53	—5	26.9	3.03	14.9	2.27	5.30
	April.	80	20	43.7	.90			.90
	May.	92	22	52.6	2.36			2.36
	June.	94	34	66.3	1.79			1.79
	July.	96	43	70.6	1.74			1.74
	August.	94	41	68.3	2.76			2.76
	September.	91	31	61.2	2.68			2.68
	October.	81	18	53.3	2.19			2.19
	November.	67	8	39.1	4.61	5.6	.61	5.22
	December.	52	—9	23.6	1.09	2.8	.20	1.29
Year.	1900	96	—16	45.8	29.39	64.1	6.77	36.16

The first snow storms, amounting to an inch or more, were as follows:

Year.	Month.	Inches.	Year.	Month.	Inches.
1856	November 15	2	1879	November 3	12
1857	November 16	1	1880	December 1	8
1858	November 13	1	1881	November 15	3
1859	November 12	3	1882	November 17	2
1860	December 4	7	1883	December 2	1.5
1861	November 23	1	1884	October 31	3
1862	November 7	2	1885	November 23	1
1863	December 11	6	1886	November 13	5
1864	November 13	4	1887	December 15	1
1865	October 27	3	1888	November 25	5
1866	November 23	4	1889	November 27	2
1867	November 16	2	1890	December 3	4
1868	October 17	3	1891	November 26	1
1869	November 23	1	1892	November 5	2
1870	October 31	1	1893	November 20	3
1871	November 10	8	1894	November 6	1
1872	November 22	7	1895	November 2	4
1873	November 12	5	1896	November 21	2
1874	November 20	4	1897	November 12	4
1875	November 14	7	1898	November 10	1.5
1876	December 9	10	1899	November 11	2.2
1877	November 29	3	1900	November 25	1.5
1878	December 4	1			

Notes in Regard to Sleighing.

1861–'62. Sleighing December 1–3; and from December 23.

1862–'63. December 6–14; January 14, one day; January 29—February 24; and March 1–25.

1863–'64. December 17—February 25; March 1, 2; April 11–13,—seventy-six days.

1864–'65. December 10—March 16,—ninety-seven days.

1865–'66. December 10 and 11. Ended February 22.

1866–'67. December 16–24; December 27—

1867–'68. Twelve inches of snow April 7. April 11, excellent sleighing.

1868–'69. Began December 5.

1869–'70. December 8–28. Further dates not given.

1870–'71. Sleighing for three weeks.

1871–'72. About thirteen weeks.

1872–'73. Began November 29.

1873–'74. Began November 13.

1875–'76. Began February 4.

1878–'79. Began December 22.

1879–'80. Began December 14.

1881–'82. Began January 2.

1883–'84. Began December 19.

1884–'85. About a week in December; December 31, ground bare.

1885–'86. About a week in December; December 31, ground bare.

1886–'87. December 7—April 3,—one hundred and eighteen days.

1887–'88. December 18—March 24,—ninety-eight days.

1888–'89. January 21—March 4,—forty-three days.

1889–'90. December 14–16; January 12—February 5; February 19–26; March 3–10,—forty-four days.

1890–'91. December 3—March 14,—one hundred and two days.

1891–'92. January 7—February 23,—forty-eight days.

1892–'93. January 10—March 17,—sixty-seven days.

1893–'94. Began December 3.

1894–'95. November 14, 15; December 2–13; December 27—March 17,—ninety-five days.

1895–'96. December 5–19; January 24—February 27; March 3—March 23,—seventy-one days.

1896–'97. January 21—March 18,—fifty-seven days.

1897–'98. January 1—March 5,—sixty-four days.

1898–'99. November 27—April 4,—one hundred and twenty-nine days.

1899–1900. January 1—March 23,—eighty-two days.

Miscellaneous Phenomena.

1857. January 23 and 24. The mercury dropped to 32 and 37 degrees below zero, respectively.

May 17. Snow fell mixed with rain. The hills about Concord were white with snow.

1858. May 17. Precisely same weather as last year on this day.

1859. January 11. The minimum temperature 35 below zero.

1862. February 24. Rain, hail, snow, thunder, lightning, and high wind.

1863. November 14–18. Rainfall of 4.46 inches, causing a freshet on the Merrimack.

1864. April 10–13. Snowfall of 16 inches. For more than three weeks previous to April 14 the wind was uninterruptedly east. In surrounding towns snow fell to the depth of 1 1-2 to 2 1-2 feet. Good sleighing in Concord from the 11th to the 13th.

June and July. Excessive drought.

1865. September. Extreme drought; worse than last year.

October. The drought is unprecedented.

1867. August 2, 3. Rainfall of 3.24 inches.

1868. February. Probably the coldest month of which any record exists in the state.

March 6. The mercury fell below zero for the thirty-fifth time this winter.

September 4. Rainfall of 3.65 inches.

1869. October 3, 4. Rainfall of 7.40 inches, of which 4 inches fell between 12:30 and 2:30 p. m. on the 4th. (This was the storm that caused the great slide on Tripyramid mountain in Waterville, the scar of which is still visible from neighboring hills.)

1870. April 17–19. Rainfall of 2.30 inches. Great freshet on the Merrimack.

October 20. Four smart shocks of earthquake at 11:30 a. m.

1871. April 8. A very hot day; at 11:30 a. m. the mercury reached 92.

1872. March 5. A very cold day; maximum—2, minimum—16, mean—9.

March 31. Excellent sleighing. Snow, except on the principal streets, from 2 to 4 feet deep.

1872. August 10–17. A succession of thunder showers, probably the severest ever remembered in New England.

November 18. A very heavy shock of earthquake at 2:05 p. m.

1874. April 25 and 26, 12 inches of snow fell.

1875. February 13. Minimum temperature 34 below zero.

1876. January 1. A remarkably warm day; maximum 72, minimum 58, mean 65,—almost exactly the temperature of July 4, 1875, which was: maximum 74, minimum 57, mean 65.5.

1878. January 8. Minimum temperature, 35 below zero.

December 12. Great freshet.

1881. June 7. Hard frosts generally through the state.

September 6. Dark day.

1882. September 21–24. A rainfall of 4.10 inches, the heaviest since October, 1869.

December 19. The heaviest earthquake shock ever remembered occurred about 5:20 p. m.

1884. November 23. Two heavy shocks of earthquake, the first about 12:30, and the second about fifteen minutes later.

1885. June 29. A thunder storm in which 2.75 inches of rain fell, of which more than 2.5 inches fell in two and one half hours.

August 4. A rainfall of 2.45 inches, of which 2 inches fell in about two hours.

1887. June 30. Earthquake at 5:09 p. m.

July 23, 24. Rainfall of 5.11 inches, of which over 4 inches fell between 9 p. m., 23d, and 8 a. m., 24th.

1888. March 12, 13. Snowfall of about 28 inches accompanied by an eastern gale.

1889. July 30. Hurricane at 12 m., which did much damage at the South end, and uprooted many trees, notably the great elm in front of the residence of Mr. J. C. A. Hill.

1890. March 28. A shock of earthquake. Heavy rumbling lasted about thirty seconds.

1891. May 1. A smart shock of earthquake at 7:07 p. m., lasting about three seconds.

1892. May 1. Earthquake at 7:30 a. m.

1895. April 15. Great freshet. The rainfall was as follows:

April 13. .17 of an inch.

April 14. 2.14 inches.

1896. March 1. Great freshet. The following is the record of rain:

February 29. 1.64 inches.

March 1. 1.06 inches.

1897. May 27. Slight earthquake shock about 10 : 15 p. m.

June 9. Rainfall of 2.20 inches, and on June 10, 2.59 inches. Between 9 a. m., 9th, and 9 a. m., 10th, 4.42 inches fell,—the greatest rainfall since October 3 and 4, 1869, when 5.70 inches fell in twenty-four hours.

September 25. Slight earthquake about 1 p. m.

1898. February 1. A great blizzard. Snowfall of about 15 inches.

February 3. Minimum temperature 32 below zero.

July 25. Earthquake at 6 : 10 p. m.

September 19. Smoke from great fires in the West covered the whole region. The odor was very marked.

September 23. About 2 inches of rain fell between 8 and 10 p. m.

November 27. Snowfall of 15 inches with northeast gale, in which the steamer *Portland* was lost.

1899. August 25. A severe shock of earthquake, passing from southeast to northwest at 4 : 47 a. m.