1915

U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, Chief.

ANNUAL METEOROLOGICAL SUMMARY,

WITH COMPARATIVE DATA

OF

San Francisco, Cal.

SAN FRANCISCO, CAL.
WEATHER BUREAU OFFICE
JANUARY 7, 1916.

ANNUAL METEOROLOGICAL SUMMARY.

SAN FRANCISCO, CAL., YEAR 1915.

MONTH.	TEMPERATURE. (Degrees Fahrenheit.) Mean. Maximum.	Mean. Minimum.	Mean. Monthly.	Extremes. Maximum.	Extremes. Date.	Extremes. Minimum.	Extremes. Date.	Relative humidity (per cent).	PRECIPITATION. (In. and hundredths) Total.	Maximum in 24 hrs.	Date.	Snowfall.	Percentage of sunshine.	WIND. Average hourly velocity.	Prevailing direction.	Maximum (For 5 Minutes) Velocity.	Direction.	Date.	NUMBER OF DAYS WITH— Gales (40 miles per hour or over).	Clear.	Partly cloudy.	Cloudy.	Precipitation (0.01 inch or over).	Thunderstorms.	Fog, dense.	Snow (0.1 in or over)	Max. Temp. 32° or below.	Max. Temp. 90° or above.	Min. Temp. 32° or below.	Min. Temp. Zero or below
January	56.1	45.5	50.8	63	22	42	17	76	6.74	1.10	31	0	44	6.9	SE	33	SW	11	0	10	5	16	18	0	0	0	0	0	0	0
February	57.9	47.8	52.8	62	6	44	21	79	7.36	1.70	1-2	0	36	8.9	SE	51	SW	2	3	7	5	16	20	1	1	0	0	0	0	0
March	65.0	50.8	57.9	81	22	46	7	73	3.02	1.91	27-28	0	56	7.9	SW	34	SW	27	0	13	9	9	9	0	2	0	0	0	0	0
April	62.7	51.5	57.1	74	9	48	30	74	0.62	0.29	25-26	0	49	8.7	SW	34	NW	29	0	10	12	8	6	0	0	0	0	0	0	0
May	63.1	52.1	57.6	81	27	46	2	75	3.17	1.05	11-12	0	52	9.3	SW	29	SW	31	0	12	6	13	11	0	0	0	0	0	0	0
June	66.0	51.8	58.9	83	3	48	14	76	0.00	0.00	0	0	85	12.2	SW	35	SW	9	0	25	5	0	0	0	0	0	0	0	0	0
July	67.1	53.4	60.2	79	17	51	31	82	0.01	0.01	4	0	71	12.0	SW	36	SW	26	0	19	8	4	1	0	0	0	0	0	0	0
August	68.4	54.2	61.3	86	28	50	5	83	0.00	0.00	0	0	65	11.3	SW	36	SW	2	0	17	10	4	0	0	0	0	0	0	0	0
September	69.9	54.9	62.4	82	29	52	25	77	0.00	0.00	0	0	81	9.9	SW	34	SW	2	0	20	10	0	0	0	0	0	0	0	0	0
October	70.1	52.5	61.3	85	3	49	20	78	0.01	0.01	23	0	77	7.6	SW	33	SW	17	0	21	7	3	1	0	2	0	0	0	0	0
November	62.6	49.6	56.1	75	1	45	14	73	0.92	0.66	8-9	0	69	5.9	N	27	SW	8	0	14	12	4	7	0	1	0	0	0	0	0
December	57.5	46.9	52.1	66	2	36	30	73	6.42	3.40	2-3	0	47	7.5	SE	40	SW	3	1	12	7	12	9	0	2	0	0	0	0	0
Year	63.9	50.9	57.4	86	Aug 28	36	Dec. 30	76.6	28.27	3.40	Dec. 2-3	0	61	8.9	SW	51	SW	Feb. 2	4	180	96	89	82	1	8	0	0	0	0	0

GENERAL SUMMARY.

At San Francisco the year 1915 was above the normal both in temperature and in rainfall. As a whole the year was 1.3° above the average in temperature, while the rainfall was 5.65 inches, or 25 per cent., above the normal. Only one month, November, was abnormally cold, and the departure amounted to but 0.3°. During the half-year from June to November, inclusive, but 0.94 inch of rain fell, this being but 3 per cent. of the total annual precipitation of 28.27 inches. The excessive rainfall during May, 3.17 inches, was, with but one exception, the heaviest recorded during that month in a period of 66 years, which is the length of the record. The 24-hour rainfall of 3.40 inches on December 2-3 is the greatest on record for that month. The 5-minute rainfall of 0.23 inch which occurred on February 16 has never been exceeded at this station since the record of that nature began. No severe storms or destructive winds occurred during the year.

—A. H. P.

MISCELLANEOUS DATA FOR 1915.

Barometric Pressure (sea level).

Mean, 30.00 inches; highest, 30.43 inches, December 20; lowest, 29.23 inches, January 29.

Temperature.

Greatest daily range, 31°: 84° to 53°, on August 27. Least daily range, 4°; 55° to 51°, March 30.

Greatest monthly range, 36° in October. Least monthly range 18° in February.

Highest mean of three consecutive days, 69°, August 27-29.

Lowest mean of three consecutive days, 42°, December 29-31.

Precipitation.

Longest period without precipitation, 110 days, July 5 to October 22, inclusive.

Longest period with precipitation, 12 days, January 24 to February 4, inclusive.

Hail: January 6 and February 20.

Other Miscellaneous Data.

Last frost in spring, February 21.

First frost in autumn, November 10.

Killing frost, 0.

Thunderstorm, February 16.

Summarized Climatic Data.

TEMPERATURE.

At San Francisco the monthly mean temperature of the air is:

	Fahr.
January	50.0°
February	52.2°
March	53.6°
April	55.2°
May	56.7°
June	58.4°
July	58.4°
August	59.0°
September	60.8°
October	60.2°
November	56.4°
December	51.3°
The annual mean temperature	56.1°

The mean diurnal range of temperature is (in degrees Fahrenheit) as follows:

January	9.8°
February	11.0°
March	11.6°
April	12.9°
May	12.2°
June	13.3°
July	12.2°
August	11.3°
September	13.1°
October	13.6°
November	11.4°
December	9.8°
Annual	11.8°

The greatest diurnal range was 24° in January; February, 25°; March, 31°; April, 33°; May, 35°; June, 43°; July, 31°, August, 38°; September, 41°; October, 35°; November, 26°; December, 22°.

The greatest diurnal range for the period 1871 to 1915 was 43°. This occurred on June 29, 1891, the extremes being 100° and 57°.

The absolute highest temperature at San Francisco since 1871 was 101°, which occurred on September 8, 1904, and September 16, 1913. The absolute lowest, 29°, occurred on January 18, 1888.

The mean variability of the temperature, as expressed by differences of consecutive daily means, based upon six years' records, 1906-1911, in degrees Fahrenheit is: January, 2.0; February,

1.8; March, 2.7; April, 3.2; May, 2.4; June, 2.4; July, 2.1; August, 2.0; September, 2.9; October, 3.5; November, 2.3; December, 2.0; annual, 2.5.

FROSTS.

Light frosts occasionally occur on winter mornings when the temperature near the ground is as low as or lower than 32°; but during the last 27 years there has been no date when the minimum temperature of the air, as officially recorded, fell as low as 32°. Records of street temperatures are obtained from a kiosk in Union Square Park and also from Montgomery Street near California Street. The range of the street temperature is somewhat greater than that of the shelter on the roof. The afternoon temperature is, as a rule, 2° or 3° higher and the early morning temperature 3° or 4° lower than the official figures.

PRECIPITATION.

The heaviest precipitation in 24 hours occurred between 11:08 p. m. Jan. 28 and 11:08 p.m. Jan. 29, 1881, amounting to 4.67 inches. The next greatest 24 hour rainfall was 3.98 inches on Nov. 22-23, 1874. The heaviest hourly rainfall occurred on Sept. 23, 1904, when 0.97 of an inch fell. In two hours 1.29 inches fell and in 16 hours and 15 minutes 3.58 inches fell.

Number of days having .01 of an inch of precipitation: January, 11; February, 10; March, 11; April, 6; May, 4; June, 1; July, 0; August, 0; September, 2; October, 4; November, 7; December, 11; for the year, 67. These are the mean values for the period 1850-1911.

The percentage of rainy days in each month or the probability of rainy days is: January, 35 per cent; February, 36; March, 35; April, 20; May, 13; June, 3; July, 0; August, 0; September, 7; October, 13; November, 23; December, 35. For the year, 18.

Snow rarely falls in San Francisco. In a period of 45 years, 1871-1915, snow has fallen 14 times. The greatest depth was 3.5 inches on Dec. 31, 1882. Snow seldom lasts more than a few hours. The longest duration was over night. The date of earliest snowfall was December 31, that of the latest snowfall, March 31.

Thunderstorms are rare. Within a period of 23 years 35 have been reported, of which 8

occurred in one year. The storms are of short duration and of feeble intensity. The month of maximum frequency is December. Damage from lightning is trivial.

Hailstorms are infrequent. In a period of 22 years 60 storms occurred; 46 of these were in December, January, February and March. There is no record of a hailstorm occurring in June, July, August or September.

WINDS.

Monthly mean wind velocities based on records from 1872 to 1911, are: January, 5,282 miles; February, 4,990; March, 6,563; April, 7,260; May, 8,416; June, 9,118; July, 9,494; August, 9,047; September, 7,156; October, 5,792; November, 4,649; December, 4,952; annual, 82,704 miles.

In January the wind is south from midnight until noon, veering to northeast at 1 p. m. and becoming northwest after 3 p. m. In February the same change can be noted except northeast winds begin earlier. During the summer and fall the winds are steadily west. In November a southerly component is noticeable, changing to northeast and northwest during the day. The north and northeast winds in general are followed by higher temperature in summer and lower temperature in winter. East, southeast and south winds are followed by increasing cloudiness, increasing moisture and sometimes rain. The southwest winds are marked by moderate temperature, much cloudiness or fog and occasional rain. West and northwest winds result in lower temperature, some fog, but in general little rain.

EXTREMES OF PRECIPITATION AND WIND.

Jan. 1, 1871 to Dec. 31, 1915.

MONTH.	Precipitation.			Wind.			
	24-hr. max.	Year.	Day.	Max. vel.	Direction	Year.	Day.
January	4.67	1881	28-29	57	se.	1901	3
February	3.60	1887	4-5	51	sw.	1915	2
March	3.31	1879	5-6	60	s.	1902	1
April	2.43	1896	23-24	47	nw.	1871	23
May	1.42	1906	27-28	45	w.	1897	11
June	1.23	1884	12-13	48	sw.	1873	.....
July	0.23	1886	16	41	w.	1898	15
August	0.08	1906	30	42	sw.	1893	2
September	3.58	1904	23-24	40	w.	1899	27
October	2.03	1889	17-18	44	ne.	1906	20
November	3.98	1874	22-23	64	ne.	1906	30
December	3.40	1915	2-3	60	se.	1892	23

COMPARATIVE DATA.

Monthly and Annual Mean Temperatures.

YEAR.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	AN'L.
1871	....	....	51.3	53.3	54.3	56.9	56.6	57.9	60.4	61.8	55.1	52.9	.....
1872	52.2	54.2	54.3	53.4	56.0	59.8	57.9	59.8	59.3	58.8	56.0	52.1	56.2
1873	54.8	50.9	54.5	54.6	55.4	57.1	58.1	59.5	58.3	59.7	57.7	50.7	55.9
1874	49.3	51.2	50.9	54.9	57.6	59.1	57.8	59.0	61.4	59.8	56.1	50.3	55.6
1875	49.0	52.0	51.8	55.4	57.2	59.4	58.8	58.8	59.2	62.0	57.4	51.4	56.0
1876	48.8	52.8	53.2	55.4	56.8	61.4	59.1	59.6	61.5	59.9	58.0	53.0	56.6
1877	54.3	55.8	57.2	54.4	56.2	62.0	60.8	59.8	62.5	59.2	57.2	52.7	57.7
1878	52.8	53.3	55.9	56.0	58.0	58.8	58.6	59.1	60.2	61.6	57.1	51.6	56.9
1879	48.8	54.6	57.2	56.5	56.4	60.2	58.7	60.5	61.0	61.0	55.0	50.0	56.7
1880	48.0	48.8	49.4	53.3	57.7	57.2	58.8	59.1	58.9	59.8	54.2	53.2	54.9
1881	54.0	55.3	54.4	57.9	58.0	58.6	59.7	58.8	59.7	56.6	55.1	51.0	56.6
1882	49.4	48.8	53.4	53.0	57.0	57.9	59.5	58.6	59.8	58.8	53.2	52.8	55.2
1883	47.0	48.8	54.0	53.2	58.0	61.4	59.8	59.2	63.1	57.9	54.1	50.8	55.6
1884	50.6	50.8	54.5	56.0	59.4	60.2	61.4	60.0	59.6	58.2	57.4	52.8	56.7
1885	51.1	55.3	57.7	58.2	58.1	57.8	61.6	59.6	61.8	60.7	57.8	54.0	57.8
1886	51.2	56.8	53.6	55.4	59.1	59.4	60.3	60.6	62.4	58.6	56.8	53.6	57.3
1887	52.6	47.8	55.8	55.8	57.0	59.4	56.6	57.8	62.0	64.2	56.4	52.2	56.5
1888	46.7	53.9	53.4	57.8	56.9	62.4	61.4	60.8	62.6	61.6	57.0	53.2	57.3
1889	50.4	54.0	57.2	58.8	58.8	60.2	58.8	60.4	64.6	61.8	58.6	51.3	57.9
1890	46.2	49.1	53.8	54.8	59.8	59.2	59.8	61.4	60.4	62.4	59.0	49.8	56.3
1891	52.2	51.2	55.0	53.4	55.7	60.2	59.4	61.8	61.8	59.7	58.6	49.6	56.6
1892	51.7	52.4	54.2	53.1	58.0	56.8	58.1	59.4	60.2	59.6	56.9	51.1	56.0
1893	47.4	50.3	51.2	52.4	55.8	56.5	56.6	56.6	59.3	57.6	55.6	52.4	54.3
1894	47.7	48.4	50.6	55.2	55.4	55.9	56.4	59.2	63.4	59.6	59.4	49.7	55.1
1895	48.6	53.8	52.2	54.8	57.6	58.7	58.4	58.4	60.7	58.8	56.2	48.6	55.6
1896	52.2	55.3	54.3	51.6	56.3	57.2	59.4	59.5	59.6	58.8	53.4	52.8	55.9
1897	48.6	50.7	48.9	57.4	57.4	58.9	58.2	57.4	60.8	58.4	53.1	50.7	55.0
1898	46.7	52.6	51.2	54.4	52.6	59.0	56.2	57.0	59.0	61.2	55.4	49.7	54.6
1899	53.0	51.6	52.2	54.6	52.6	56.9	55.9	58.3	58.2	59.3	56.8	49.6	54.9
1900	50.7	53.6	55.2	54.0	57.0	57.6	58.2	59.7	63.3	58.8	56.3	50.2	56.2
1901	49.8	52.2	55.8	51.8	53.9	56.7	55.6	56.4	58.5	61.8	57.2	52.9	55.2
1902	46.7	52.9	51.6	54.4	55.5	56.9	59.2	60.6	61.9	59.3	54.8	50.6	55.4
1903	47.9	48.9	52.2	54.0	55.2	58.5	57.2	57.6	61.0	62.0	56.6	52.4	55.3
1904	50.6	50.8	51.8	56.8	59.0	59.2	57.1	57.1	64.0	62.0	58.0	50.6	56.4
1905	51.3	54.0	57.0	56.4	55.5	56.0	59.5	58.4	60.4	60.4	56.2	50.7	56.3
1906	51.6	55.2	54.0	56.4	56.2	59.4	57.6	57.9	60.0	61.7	55.4	49.6	56.2
1907	47.1	54.9	51.0	56.8	56.4	57.1	58.0	59.3	60.6	60.6	57.8	52.4	56.0
1908	50.8	50.9	54.8	56.4	55.4	55.4	57.3	57.4	60.5	58.8	55.4	47.0	55.0
1909	51.5	51.3	51.8	56.6	54.5	56.1	57.8	57.4	61.6	59.4	54.8	49.2	55.2
1910	46.4	50.4	54.9	57.1	58.7	55.9	56.4	56.5	57.6	61.2	54.8	53.0	55.2
1911	51.0	49.3	49.2	53.6	55.6	55.0	56.4	56.5	60.0	60.9	57.3	51.7	55.2
1912	51.8	54.6	52.2	52.8	57.2	60.4	57.9	59.9	56.4	60.0	56.6	51.6	56.6
1913	47.4	52.4	52.6	55.4	56.6	58.2	60.6	62.1	61.6	61.5	55.2	50.6	56.4
1914	51.5	54.0	58.4	58.2	56.2	56.6	57.0	58.2	60.8	62.0	59.0	48.7	56.7
1915	50.8	52.8	57.9	57.1	57.6	58.9	60.2	61.3	62.4	61.3	56.1	52.1	57.4
MEANS.	50.0	52.2	53.6	55.2	56.7	58.4	58.4	59.0	60.8	60.2	56.4	51.3	56.1

TEMPERATURE EXTREMES.

Mar. 1, 1871 to Dec. 31, 1915.

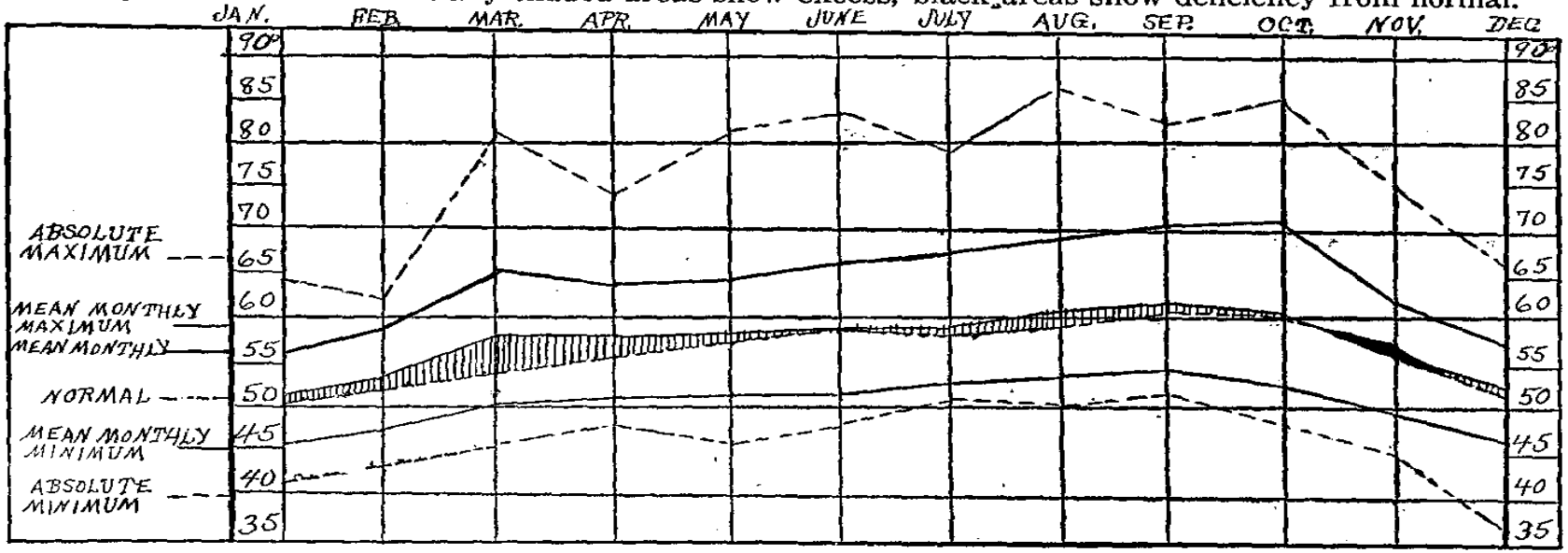
MONTH.	Maximum.	Year.	Day.	Minimum.	Year.	Day.
January	78	1899	26	29	1888	15
February	80	1899	18	33	1887	5
March	86	1914	18	33	1896	3
April	88	1888	14	40	1891	7
May	97	1887	28	42	1906	16
June	100	1891	20	46	1908	4
July	98	1905	7	47	1893	31
August	92	1891	22	46	1903	8
September	101	'04 '13	8, 16	48	1906	30
October	94	1899	8	45	1881	14
November	83	1895	16	33	1896	27
December	72	1893	8	34	1879	24

SAN FRANCISCO RAINFALL, MONTHLY, SEASONAL AND ANNUAL, 1849—1915.

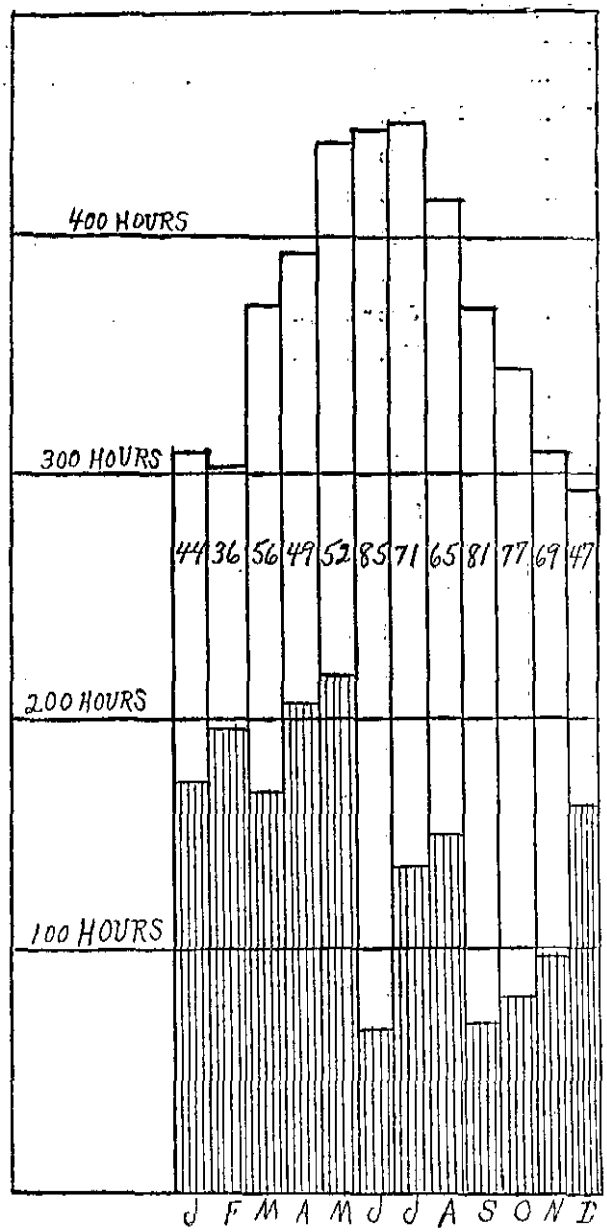
Season.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	Seasonal	Year	Annual
1849—50	0	0	0	3.14	8.66	6.20	8.34	1.77	4.53	0.46	0	0	33.10	1850	17.40
1850—51	0	0	0.33	0	0.92	1.05	0.72	0.54	1.94	1.23	0.67	0.02	**7.42**	1851	15.60
1851—52	0	0.02	1.03	0.21	2.12	7.10	**0.58**	0.14	6.68	0.26	0.32	0	18.46	1852	27.29
1852—53	0	0	0	0.80	5.31	13.20	3.92	1.42	4.86	5.37	0.38	0	35.26	1853	21.17
1853—54	0	0.04	0.46	0.12	2.28	2.32	3.88	8.04	3.51	3.12	0.02	0.08	23.87	1854	22.45
1854—55	0	0.01	0.15	2.43	0.34	0.87	3.67	4.77	4.64	4.99	1.88	0	23.75	1855	26.38
1855—56	0	0	0	0	0.67	5.76	9.40	0.50	1.60	2.94	0.76	0.03	21.66	1856	22.31
1856—57	0.02	0	0.07	0.45	2.79	3.75	2.45	8.59	1.62	**0**	0.05	0.12	19.91	1857	20.96
1857—58	0	0.05	0	0.93	3.01	4.14	4.36	1.83	5.55	1.55	0.34	0.05	21.81	1858	23.46
1858—59	0.05	0.16	0	2.74	0.69	6.14	1.28	6.32	3.02	0.27	1.55	0	22.22	1859	21.39
1859—60	0	0.02	0.03	0.05	7.28	1.57	1.64	1.60	3.99	3.14	2.86	0.09	22.27	1860	21.18
1860—61	0.21	0	0	0.91	0.58	6.16	2.47	3.72	4.08	0.51	1.00	0.08	19.72	1861	25.52
1861—62	0	0	0.02	0	4.10	9.54	**24.36**	7.53	2.20	0.73	0.74	0.05	**49.27**	1862	38.63
1862—63	0	0	0	0.52	0.15	2.35	3.63	3.19	2.06	1.61	0.23	0	13.74	1863	15.10
1863—64	0	0	0.03	0	2.55	1.80	1.83	**0**	1.52	1.57	0.78	0	10.08	1864	21.64
1864—65	0	**0.21**	0.01	0.13	6.68	8.91	5.14	1.34	0.74	0.94	0.63	0	24.73	1865	14.06
1865—66	0	0	0.24	0.26	4.19	0.58	10.88	2.12	3.04	0.12	1.46	0.04	22.93	1866	36.28
1866—67	0	0	0.11	0	3.35	**15.16**	5.16	5.20	1.58	2.36	0	0	32.92	1867	28.64
1867—68	0	0	0.04	0.20	3.41	10.69	9.50	6.13	6.30	2.31	0.03	0.23	38.84	1868	30.17
1868—69	0	0	0	0.15	1.18	4.34	6.35	3.90	3.14	2.19	0.08	0.02	21.35	1869	22.59
1869—70	0	0	0.12	1.29	1.19	4.31	3.89	4.78	2.00	1.53	0.20	0	19.31	1870	16.24
1870—71	0	0	0.03	0	0.43	3.38	3.07	3.76	1.31	1.89	0.23	0.01	14.11	1871	27.53
1871—72	0	0.02	0	0.07	2.81	14.36	4.03	6.90	1.59	0.81	0.18	0.04	30.78	1872	22.42
1872—73	0.01	0	0.04	0.11	2.79	5.95	1.58	3.94	0.79	0.43	0	0.02	15.66	1873	18.56
1873—74	0.01	0.08	0	0.83	1.16	9.72	5.66	2.21	3.36	0.90	0.66	0.14	24.73	1874	22.52
1874—75	0	0	0.02	2.69	6.55	0.33	8.01	0.32	1.30	0.10	0.22	1.02	20.56	1875	22.63
1875—76	0	0	0	0.24	7.27	4.15	7.55	4.92	5.49	1.29	0.24	0.04	31.19	1876	23.54
1876—77	0.01	0.01	0.38	3.36	0.25	**0**	4.32	1.18	1.08	0.26	0.18	0.01	11.04	1877	11.93
1877—78	0.02	0	0	0.65	1.57	2.66	11.97	**12.52**	4.56	1.06	0.16	0.01	35.18	1878	33.26
1878—79	0.01	T.	0.55	1.27	0.57	0.58	3.52	4.90	**8.75**	1.89	2.35	0.05	24.44	1879	30.76
1879—80	0.01	0.02	T.	0.78	4.03	4.46	2.23	1.87	2.08	**10.06**	1.12	0	26.66	1880	30.07

1880—81	0	0	0	0.05	0.33	12.33	8.69	4.65	0.90	2.00	0.22	0.69	29.86	1881	23.73
1881—82	0	0	0.25	0.54	1.91	3.85	1.68	2.96	3.45	1.22	0.21	0.04	16.14	1882	18.67
1882—83	0	0	0.26	2.66	4.18	2.01	1.92	1.01	3.01	1.51	**3.52**	0.01	20.12	1883	15.43
1883—84	0	0	0.42	1.48	1.60	0.92	3.94	6.65	8.24	6.33	0.23	**2.57**	32.38	1884	**38.82**
1884—85	T.	0.04	0.33	2.55	0.26	7.68	2.53	0.30	1.01	3.17	0.04	0.19	18.10	1885	24.90
1885—86	0.06	T.	0.11	0.72	**11.78**	4.99	7.42	0.24	2.07	5.28	0.37	0.01	33.05	1886	20.02
1886—87	**0.23**	T.	0.01	1.48	0.84	2.07	1.90	9.24	0.84	2.30	0.06	0.07	19.04	1887	19.04
1887—88	T.	0.01	0.29	T.	0.99	3.34	6.81	0.94	3.60	0.11	0.38	0.27	16.74	1888	23.03
1888—89	0.01	0.01	0.98	0.13	3.99	5.80	1.28	0.72	7.78	0.96	2.17	0.03	23.86	1889	36.94
1889—90	0.01	T.	T.	**7.28**	2.90	13.81	9.61	5.16	4.73	1.18	1.07	0.10	45.85	1890	25.43
1890—91	0.02	0	0.31	0	**0**	3.25	0.98	7.26	1.96	2.44	1.25	0.11	17.58	1891	21.11
1891—92	0.10	0.02	0.77	0.04	0.56	5.62	2.42	2.90	2.85	1.39	1.86	T.	18.53	1892	22.08
1892—93	0	0	0.02	1.65	3.91	5.08	3.05	2.75	4.08	1.03	0.15	0.03	21.75	1893	17.91
1893—94	0.02	0	0.21	0.16	4.18	2.25	5.99	2.69	0.60	0.50	1.31	0.56	18.47	1894	24.32
1894—95	T.	0	1.05	1.73	0.88	9.01	6.99	2.31	1.89	1.24	0.60	0	25.70	1895	17.13
1895—96	0.01	0	0.77	0.11	1.78	1.43	8.14	0.28	2.85	5.16	0.72	0	21.25	1896	28.25
1896—97	0.04	0.09	0.52	1.55	4.56	4.34	2.26	4.41	4.56	0.27	0.61	0.22	23.43	1897	16.40
1897—98	T.	T.	0.10	1.70	1.05	1.22	1.12	2.13	**0.24**	0.19	1.44	0.19	9.38	1898	**9.31**
1898—99	0	T.	1.06	0.86	0.46	1.62	3.67	0.10	7.61	0.62	0.86	0.01	16.87	1899	23.23
1899—1900	0	T.	0	3.92	3.79	2.65	4.11	0.64	1.91	1.08	0.32	0.05	18.47	1900	15.33
1900—01	T.	T.	0.46	1.48	3.91	1.37	5.79	5.08	0.80	1.64	0.69	T.	21.17	1901	19.75
1901—02	T.	T.	0.78	0.64	3.48	0.90	1.23	7.27	2.65	0.98	1.05	T.	18.98	1902	19.18
1902—03	T.	T.	T.	1.70	1.98	2.32	3.73	1.76	6.23	0.56	T.	T.	18.28	1903	18.33
1903—04	0	T.	T.	0.17	4.25	1.63	1.05	5.89	6.01	1.29	0.30	T.	20.59	1904	24.72
1904—05	0.02	0.06	**5.07**	2.87	1.07	1.59	4.04	2.70	3.15	1.33	2.05	0	23.45	1905	16.24
1905—06	0	T.	T.	T.	0.92	2.05	3.90	4.30	5.02	0.92	2.75	0.56	20.42	1906	26.34
1906—07	0.08	0.11	0.18	0.03	1.59	6.90	4.41	3.02	8.42	0.11	0.04	1.28	26.17	1907	22.47
1907—08	T.	0.02	0.11	1.36	0.04	3.66	4.88	5.39	0.90	0.22	0.76	0.01	17.35	1908	16.42
1908—09	0.02	0.01	0.13	0.61	1.34	2.15	10.51	7.53	3.27	T.	T.	T.	25.57	1909	31.36
1909—10	0	0	0.80	1.23	2.43	5.59	3.24	2.09	3.78	0.31	2.03	0.02	19.52	1910	12.38
1910—11	T.	0	0.05	0.65	0.48	1.73	13.79	3.02	4.57	0.89	0.28	0.03	25.49	1911	26.00
1911—12	T.	0	T.	0.28	0.60	2.54	2.47	0.41	4.10	1.38	1.47	0.81	14.06	1912	15.62
1912—13	T.	0	1.25	0.49	1.94	1.30	3.84	0.43	1.47	0.60	0.63	0.02	11.97	1913	19.05
1913—14	0.07	0.01	0	0.35	6.22	5.41	9.76	5.04	1.09	0.99	0.37	0.29	29.60	1914	24.04
1914—15	0.02	0	T.	0.29	0.70	5.49	6.74	7.36	3.02	0.62	3.17	0	27.41	1915	28.27
1915—16	0.01	0	0	0.01	0.92	6.42	.....	.....	.....	.....	.....	.....	.....	.....	.....
Averages	0.02	0.02	0.30	0.96	2.55	5.31	4.99	3.55	3.30	1.60	0.79	0.16	22.78	.....	22.62

Temperature Chart.—Partially shaded areas show excess, black areas show deficiency from normal.



SUNSHINE CHART.



The tops of the columns indicate the total possible number of hours of sunshine in each month.

The shaded areas show the number of daylight hours of obscured sunlight in each month.

The unshaded areas show the number of hours of actual sunshine in each month. The figures within the unshaded areas are the monthly percentages of the possible number of hours during which there was sunshine.

TEMPERATURES.

Year.	Absolute Maximum.	Date.	Absolute Minimum.	Date.
1871....	84	October	...	.....
1872....	92	June	41	December
1873....	79	October	40	February
1874....	89	September	39	January
1875....	82	September	39	Jan. and Dec.
1876.. .	93	June	36	January
1877....	92	June and Sept.	42	Jan. and Dec.
1878....	78	May, Sept., Oct.	39	January
1879....	89	August	34	December 24
1880....	84	May	37	January
1881....	83	July	40	March
1882....	83	September	34	December
1883....	95	June	35	February
1884....	83	July	35	February
1885....	87	September	43	January
1886....	94	September	41	Jan. Feb. Mar.
1887....	97	May	33	February
1888....	93	July	29	January 15
1889....	89	September	39	February
1890....	86	October	36	Jan. and Feb.
1891....	100	June 29	37	December 25
1892....	92	August	38	December 10
1893....	90	June 3	36	January
1894....	94	September	36	January
1895....	89	May and Sept.	38	January
1896....	91	May	33	March
1897....	92	September 16	38	February 20
1898....	89	June 4	36	January 25
1899....	94	October 8	34	February 4
1900....	92	September 22	40	December 31
1901....	91	October 12	37	January 1
1902....	83	September 29	38	January 14
1903....	96	June 6	37	January 15 †
1904....	101	September 8	38	December 20
1905....	98	July 7	39	December 31
1906....	85	October 27	40	November 29 †
1907....	90	October 4	36	January 13
1908....	89	September 29	35	December 20
1909....	94	June 23	38	January 12 †
1910. .	90	May 30	36	January 3
1911....	87	October 16	38	February 27
1912.. .	94	September 18	40	January 3
1913....	101	September 16	33	January 6
1914....	92	September 10	41	December 15
1915....	86	August 28	36	December 30

† Also on other dates.