METEOROLOGICAL, OBSERVATIONS.

Meteorological Observations made at San Francisco, from November, 1850, to June, 1875. BY HENRY GIBBONS, M.D.

In the following tables the reader will find, in a condensed form, the results of twenty-four years' diligent observation of the climate of San Francisco, with more particular reference to rain.

Rain has fallen in every month of the year. In July it has rained only in one year; August has furnished rain in four years; June in seven years; September in twelve years; October in sixteen years. No account is made of a mere sprinkle, nor of the deposit of summer mist. The greatest quantity of mist which ever falls in twenty-four hours is about three hundredths of an inch. But this quantity is very rare. Near the ocean the mist is much more copious.

The driest season was 1850-51, which gave only seven inches. Next to that was 1863-64, with eight and one half inches. The winter of 1867-68 gave the most rain—forty inches. The average is between twenty-one and twenty-two inches.

The earliest setting in of the rainy season was October S; the latest, January 12. An early beginning and an abundant supply are apt to go together, but there is no rule in this respect—the latest beginnings have been followed by an average supply.

The average date of the beginning of the rainy season is November 28; of the termination, April 10. March is as certain to bring rain in liberal amount as any other month. In one year out of every three there is no rain of importance after March. The last showers of the season come, with remarkable uniformity, about the third week of May.

The middle of January is the average dividing point of the rainy season. The mean quantity before January 1 is about equal to the mean quantity after January 31.

December gives the greatest average quantity; January is not far behind; February, March, and November come next, and are nearly alike; then April, May, and October, in the order named.

The greatest amount of rain in any one month was in January, 1862, when there fell the enormous quantity of eighteen inches.

It is worthy of note that in the driest seasons there has been an abundant supply for agricultural purposes, had it been distributed evenly. Three inches in December, with one inch in each of the four following months, would answer all purposes.

The rain table of San Francisco may be made the basis for estimating the fall in other parts of the State. The mountains of the north have from two to three times as much, and the southern section of the State about half as much, or even less in some localities. The valley of the Sacramento has nearly the same quantity as San Francisco; that of the San Joaquin one fourth or one third less, the quantity diminishing southward.

By reference to the tables showing the extremes of heat and cold, it appears that the coldest weather was in January, 1854, when the mercury fell to 25°. At that time the mud in the streets was frozen solid, and the shallow ponds were covered with ice strong enough for boys to skate on. But such weather is extremely rare, though since that time the ground has been frozen several times so as not to thaw fully in the shade for a day or two. The coldest noonday embraced in the record was 37°. Often the entire winter passes by without bringing the thermometer so low as the freezing point. In 1853 it fell at no time below 40°.

The extreme of heat was on the tenth and eleventh of September, 1852, when the thermometer reached 97° and 98° on the two days, respectively. This, however, was entirely exceptional, and might not occur again in half a century; the air was dry as a sirocco, and caused the woodwork of houses to crackle and the plaster to break on the wooden walls.

With the exception just noted, the hottest day on record was 93° on the sixth day of July, 1867. In October, 1864, and in September, 1865, it reached 91°, and in July, 1855, it reached 90°. Thus it appears there were only six days in twenty-four years when the thermometer rose as high as 90°.

The table of mean temperature shows that our summer does not come till the summer months have passed by. September is the warmest month in the year, and October next; then comes August; July, the hottest month elsewhere, is the fourth here, or links with June; next come April and May; then March and November; then February, and, finally, January and December, which are the only winter months, if indeed we have any weather that deserves the name of winter.

Twice the ground has been covered with snow. On the twenty-ninth of December, 1856, it snowed very fast for several hours, and two or three inches gathered, but it melted before night. On the twelfth of January, 1868, it snowed fast before day, so that two inches collected. But it disappeared before sunrise, so that few persons enjoyed the rare spectacle.

The extraordinary evenness of the climate depends on the adjacent ocean, the water of which, flowing in a current from the north, is always at a temperature of about 52°, summer and winter. The sea breeze of summer, which chills the air at noonday, leaves no place for hot nights. There is not, on an average, one night in the year when it is warm enough to sit out of doors at midnight with comfort.

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