

fying the climate, which is represented as tropical throughout the year. This valley extends as far south as the San Bernardino Mountain. The residents in California say that they have never known the wind to blow from the northeast within thirty miles of the coast.

This state of things may also prevail in the interior, and will naturally prevent the cool stratum of air from descending into the valley, it being carried to the interior by the prevailing winds from an opposite quarter.

In ordinary seasons these valleys are well watered by streams from the mountains, which vary very much in size: they are for some part of the year mere brooks, while during the rainy season, from November to February, they become in some cases impassable. The Sacramento is the largest river in California. One of its branches, Destruction river, takes its rise near Mount Shaste, and was examined throughout the whole of its course by our land party, until it joined the Sacramento: the latter is thought by some to pass through the mountains and join Pitt's river. Pitt's river is said to take its rise to the northeast of the Shaste Mountain, and from the information that I received, extends as far as Pitt's Lake, under the forty-second parallel. I have reason to doubt whether the length of its course is so great, and believe that the Sacramento has its source in the eastern spurs of the Shaste Mountain. I have, however, indicated by a dotted line on the map, the course Pitt's river is thought to pursue before it joins the Sacramento. This, if correct, would give the Sacramento, with its branches, a course of two hundred miles from the ocean.

The first branch of any size in descending the Sacramento is that called Feather river, which joins it below the Prairie Butes, coming from the northeast. This branch takes its rise in the California Mountains, near their northern end, and has a course of about forty miles. The American river is a small branch that joins the Sacramento at New Helvetia. After receiving this stream, the Sacramento is joined by the San Joachim, which courses from the south, and below their confluence enters the bay of San Pablo through the straits of Kaquines, thence passing into the bay of San Francisco.

It is navigable for boats to the distance of one hundred and fifty miles, and for vessels as far as New Helvetia. The upper portion of it, near the Prairie Butes, overflows its banks, and submerges the whole of the Sacramento Valley as far down as the San Joachim. This inundation is probably caused by the united effects of the Sacramento