

for miles, north and south, and a long distance inland. A wide area is thus covered by loose, dry sea sand, and it has the aspect and character of a desert. From this large tract has undoubtedly been accumulated, by the action of the ocean winds, the extensive formation of blown sand, which prevails within the city proper. Most of the hills in the city, where they were partially sheltered, are, or were, covered with a thick growth of shrubs (chamisal), which prevented the wind from acting upon their surfaces and removing the sand. Here, we may add, that artesian borings for water have been numerous, and that it is almost impossible to ascertain their number and localities. Water appears to be found in all parts of the city around the hills, and generally at a depth of not more than 150 feet, but the depth varies with the locality. In Happy Valley, the borings are successful at a depth of 70 feet; north of California Street the depth increases, one in Montgomery Block being 160 feet. The depths to which borings are carried, increase from the base of the hills towards the bay, and many of the wells are bored down through the salt water.

Surveys of San Francisco.

In the spring of 1839, Governor Alvarado directed Alcalde F. De Haro to cause a survey of Yerba Buena to be made, and to lay out streets and lots. In the fall of the same year, and under his direction, Juan Vioget, a surveyor, made the *first* survey and plan of Yerba Buena. That survey was bounded by Pacific, Montgomery, Sacramento and Dupont streets. Subsequent surveys (each more extended than its predecessor) were made officially by Jasper O'Farrell, William M. Eddy and John J. Hoff. East of Larkin and Johnston streets, the city is divided into fifty vara lots; one hundred vara lots; beach and water lots; North Beach blocks; South Beach blocks; Clay Slip lots. In the "Fifty Vara Survey," there are 1,530 lots, with official numbers affixed, each fifty vara lot forming a square of $137\frac{1}{2}$ feet, exclusive of Numbers 695, 709 and 753 which are duplicated; 40 only of the fifty vara lots being located south of Market Street. North of Market Street are also one hundred vara lots, Nos. 1, 18, 24, 49, 50, 56, 57, 76, 673 and 675. In the "One Hundred Vara Survey," each lot forming a square of 275 feet, the numbers range from 1 to 420; however, there are but 398 official lots, as by some unaccountable oversight, Nos. 98 to 102, 108, 117 to 125, 152, 153, 154, 164, 236, 237 and 320 were omitted in the numbering. This survey is bounded by Johnston, Market and First streets. In the "Beach and Water Lot Survey," all of them being east of Montgomery and First streets, there are 772 lots, each lot forty-five feet and ten inches in front, with a uniform depth of $137\frac{1}{2}$ feet, with an official number affixed. In the "North Beach Survey," there are 19 blocks, each block of six fifty vara lots, extending from the corner of Larkin and Jefferson streets, to the junction of Kearny and Bay streets, all of them fronting on the bay and under water. In the "South Beach Survey," there are 33 blocks of various dimensions, fronting on the bay, and extending from Rincon Point to the junction of Harris and South streets—all under water. The "City Slip Property," bounded by Clay, East, Sacramento and Davis streets, consists of 122 lots, each, with a few exceptions, being 25 feet in front, by 59 feet nine inches deep. In December, 1853, this entire property was sold at auction for \$1,119,350. In addition to the foregoing, there are about 16 blocks east of Larkin and Johnston streets, without any official numbers attached. Of