

Death Valley, on the Nevada line. This section comprises a vast area, exceeding forty thousand square miles, and is the Sahara of America.

Bordering the eastern base of the Sierra Nevada are numerous valleys of considerable extent, well adapted for agricultural and grazing purposes. Of these are Owens Valley, the Big Meadows of Walker River, Long, Sierra, Beckwourth, Honey Lake and Surprise Valleys. Owens Valley has a length of upward of one hundred miles, and is threaded by the river from which it takes its name. Beckwourth, Surprise and Honey Lake Valleys are of similar character to Owens, and fade away into the wastes of sage brush and alkali. Surprise Valley is embraced in the new county of Modoc, in the northeastern corner of the State, and is rapidly filling up with settlers. This entire section, embracing Modoc, Siskiyou and parts of Shasta, Plumas and Lassen counties, is an elevated plateau, having a lava bed with volcanic peaks and basaltic ridges dividing it into different valleys. The lofty peaks, Mount Shasta and Lassen Butte, are extinct volcanoes, which in all probability have formed the floods of lava now covering the vast region. The elevation is from 3,500 to 4,500 feet, with mountain peaks rising ten thousand feet above them. The climate of these mountain valleys is pleasant and healthful, the summer days being warm, but the nights are often frosty, while the winters are never excessively cold. The water is abundant and of the purest quality, and as the grazing is excellent, these valleys are peculiarly adapted to dairying and stock-raising. The Valley of Big Meadows is one of the most romantic and beautifully situated of this plateau. This is about fifteen miles in length and from two to three in width, and is enclosed in volcanic peaks and ridges. The North Fork of Feather River and several branches of the same run through it, and a luxuriant growth of grass gives it its pleasant name. The Mountain Meadows, lying to the eastward, are a part of the same valley, connected by an easy pass. These are several miles in extent, and reach, with slight rise, to the summit of the Sierra, whence, through Summit Valley, the waters of Susan River flow eastward to Honey Lake.

Indian and Genesee Valleys are parts of a great basin south of Big Meadows, and without the lava formation. The altitude is not so great as the former, and the snows are not so heavy nor the frosts so severe. The area of this basin is of about twenty-five square miles, and is occupied by a thrifty and prosperous farming and mining community.

American Valley, a few miles south of Indian, is similar to the latter though of less area. These are of the most lovely and picturesque of the great range. Environed by lofty mountain ridges, clothed from summit to base with stately pines, with towering, snow-clad peaks in the distance, and verdant meadows in the foreground, fill a picture at once lovely and grand. Throughout the Sierras smaller valleys of equal loveliness are found, sparkling with lakes and rivulets set like gems on the mountain side, destined to become the pleasant and prosperous homes of intelligent cultivation.

The great valley of California, next to the Sierra Nevada, is the distinguishing feature of the State. This grand basin lies between the Sierra Nevada and the Coast Range, a level plain having a length of four hundred miles, and an average breadth of forty, giving an aggregate area of 14,000 square miles, or upward of ten million acres. The greater portion is arable and very productive, producing grain, cotton, tobacco, root crops and fruit of every variety belonging to a semi-tropical climate. The range of products is almost unlimited. The wheat, which is the reliance of the coldest latitudes, grows with unsurpassed luxuriance and unequaled quality by the side of the cotton field; and the apple and the orange are gathered in contiguous orchards. Within this wide range may be found all products of farm or garden, grove or orchard, park or forest. As its landscape is inspiring from its extent and loveliness so are its prospects of future wealth and high cultivation limitless. Sixteen great counties, with parts of others in the bordering foothills, make up its political divisions; cities stud its plains and navigable rivers, and lines of railroad open every portion to commerce. Conventionally the valley is divided into three parts, as the Sacramento Valley, San Joaquin Valley and Tulare Valley, being the sections bordering the rivers and lakes of their names. The Sacramento flowing from the north enters the valley at Redding, and after receiving many streams in its course of over two hundred miles, joins the San Joaquin in Suisun Bay and breaks through the inner Coast Range on the way to the sea. The San Joaquin has a similar course though in the opposite direction. The southern section of the valley embraces lakes Tulare, Kern and Buena Vista, which in seasons of freshets unite and flow into the San Joaquin. These are usually called the Tulare Lakes. About them and about the lower courses of the Sacramento, San Joaquin and Feather rivers are large areas of "tule" or marsh lands, subject to long continued inundation during each year, and requiring protection by dikes and drainage before they can be tilled, but when so reclaimed are very productive. Lying, as the greater portion of them do, along the banks of navigable rivers and sloughs, they are of easy access, and with their warmth and depth of soil their value under cultivation can scarcely be estimated. Grain, grass and trees grow luxuriantly, and several crops can annually be gathered from the same ground. These lands aggregate several thousand square miles, of which over 1,500,000 acres have been listed to the State and are wholly or in part reclaimed, costing from five to twenty dollars per acre.

Large sections of the great valley, although of fertile soil, are unproductive without irrigation, and for this the lofty mountain ranges afford every facility. The snows upon the mountain peaks and the many lakes hiding like nests at the river sources are natural reservoirs of water which may be drawn upon while the summer droughts desiccate the plain. A proper system of engineering will so utilize these that at some future day there will be no part of the great valley, or the pleasant foothills, not brought under cultivation. Already enterprises of this character have been entered upon, and several large irrigating canals have been constructed. Their success has been proven, and where used the result has been to increase the product several fold, and to make certain a crop where otherwise nothing could have been grown. As an illustration it is shown that an irrigated field in Tulare County produced seven crops of alfalfa, averaging two tons per acre at each cutting, or fourteen tons of hay per acre for the season. One acre of irrigated alfalfa will support twenty sheep, while three acres of natural grass are required for one. With such results, and with the abundant water that may be utilized, the ten million acres of the great valley and contiguous foothills may be transformed into a veritable garden, supplying sustenance for many millions of people. The Kings River and San Joaquin Valley Irrigating Canal, the Fresno Canal, and others, have been constructed, which irrigate large areas, with the most flattering results.

The valley of the Salinas resembles in many respects the valley of the San Joaquin, and is the second in size of the great interior valleys of the State. The Rio San Juan, rising in the hills dividing the valley from Tulare, constitutes the main branch of the Salinas. The valley of this stream is hilly, and with little arable land. After a flow of upward of one hundred miles northward, passing the San Antonio Hills, the river enters the real valley of the Salinas. This spreads to a width of from twelve to fifteen miles in its lower extension, furnishing more than half a million acres arable land. Salinas City, a bustling town, has recently been built in the centre of the valley, and Castroville is near the mouth of the river. The Southern Pacific Railroad now extends to Soledad, threading the valley for a distance of upward of forty miles, giving transportation facilities to the most occupied and cultivated portion of the valley. The Salinas and Monterey Railroad, in course of construction, will connect it with a convenient seaport. This valley, like its counterpart, the San Joaquin, is subject to severe winds and droughts, but in years of plenteous rains it yields abundantly.

The Pajaro, San Benito and San Lorenzo Valleys are drained to Monterey Bay, the first having an area of about seventy-five square miles, the second about two hundred, and the San Lorenzo about thirty, all exceedingly fertile, and distinguished for their loveliness of climate and variety of productions.