

thousand now. "They are gone; they have all passed by," leaving scarcely more than their names as mementoes. Good taste has been shown in retaining many of their pleasant titles. Colusa, Shasta, Yolo, Tehama, Napa, are specimens of these bequests received either from tribes or noted chiefs.

A mysterious law, which has within itself the power of its own execution, seems to have decreed that civilization and barbarism shall not dwell together. When civilization comes, the savage must accept it or die! The latter penalty seems to have been dealt out to the Indians with great suddenness in California. In the valleys that were so recently teeming with natives there is scarcely one now to be found. They have vanished as the mist before the clear shining of the sun. Some of them have been gathered into reservations under the pretense of taking care of them. But it is too often such care as the wolf takes of the lamb that is in his power. They are made to toil and raise crops, which are sold to put money into the pockets of those who superintend the reservation, and the poor Indian is allowed to live as he can. Even if one is not particularly sentimental in regard to the Indian, such wrong and oppression, and wholesale destruction, can scarcely be regarded without pain. Their sixty years of bondage to the fathers took from them their independence, and crushed out whatever manliness there was in their nature. Trained to depend entirely upon others, when left to themselves they were like ships without rudders, they drifted whithersoever the winds and the waves carried them, and these have borne them to sure and swift destruction.

## CHAPTER IV.

## GEOGRAPHY AND TOPOGRAPHY.

THERE are three ranges of mountains within the boundaries of the United States, all running in nearly the same direction, though not exactly parallel. The Appalachian range lies on the eastern border. This chain is made up "of a series of compact wrinkles of the earth's crust," having within its limits no very high peaks, the loftiest being not more than seven thousand feet. None of the different lines of the Appalachian chain are immediately on the sea-coast. In New England the nearest is fifty miles back, and the interval gains in width going southward, until in the Carolinas it has a breadth of two hundred miles. The congeries of ranges belonging to the Appalachian chain averages one hundred miles in width. Extending west from this chain are the broken foot-hills which form the eastern portion of Ohio and parts of Kentucky and Tennessee. Pittsburgh is in this foot-hill country, and is six hundred and ninety-nine feet above the sea-level. From this point to the mouth of the Ohio river the descent is three hundred and seventy-five feet, the level there being only two hundred and seventy-five feet above the Gulf of Mexico. The Ohio river forms the eastern boundary of the prairie region, the garden of the continent, of which nearly the whole State of Illinois can be taken as a type.

Crossing the Mississippi, and still pursuing a westward



course, when the western border of Missouri is reached there is a choice of two ways of continuing the journey, either of which will advance the traveler on his way toward the setting sun. He can follow up the Kansas or the Platte rivers, both of them confluent of the Missouri. He may travel up either of these rivers more than five hundred miles, all the while ascending, but ascending so gradually as to be scarcely cognizant of the fact. On either side there is a vast plain, which abounds in nutritious grasses, though destitute of forests except along the river courses. These are "the plains" about which so much was said in the early days of immigration to the Pacific coast. These plains form the western side of the great central valley of the continent; and whatever barrenness they have is due to the insufficient rain-fall, which is greatly less than it is in the immediate vicinity of the Mississippi river. Only about one-third as much rain falls on the western as on the eastern side of the valley. This great American desert of twenty-five years ago has lost its reputation for barrenness. Coal and iron are found there, and when its need of water can be satisfied it can be made "to bud and blossom as the rose." Grain and vegetables and fruits grow in abundance when the soil is properly irrigated.

Omaha, situated on the west bank of the Missouri river, is one thousand feet above sea-level, and from there the ascent, going westward, is continuous, though gradual. In passing over the Union Pacific railroad, the first view of the Platte river is gained just before reaching Fremont, fifty miles west of Omaha. This river is a disappointment to most persons who see it here for the first time.

It seems to be not so great or so grand as had been supposed. It is said that in the days when emigrants crossed the plains in wagons on their way to California, they were sometimes obliged to dig pits in the river and let the water settle into them in order to get enough for their teams to drink. The average width of the stream is three-fourths of a mile, and the average depth six inches, which shows that it is very much spread out. The valley is level and grand in its extensiveness.

The Union Pacific railroad follows the valley of the main Platte river for three hundred miles, when it reaches the North Platte, which it crosses on a long and substantial trestle bridge. The Black Hills are here seen in the distance, but the traveler on the Union Pacific road looks in vain for anything that will come up to his preconceived ideas of the Rocky Mountains. Indeed, if he follows the line of the railroad he will fail altogether of getting any just appreciation of the majesty and grandeur of this mighty range of mountains. He must leave the line of the Union Pacific at Cheyenne and go one hundred miles south to Denver, on the South Platte. From Denver he must go westward, and, if possible, southward too, and make the familiar acquaintance of the peaks of the "snowy range," get into the near neighborhood of Pike's Peak, and of Grey's Peak, and of Long's, the three principal vertebræ of the back-bone of the continent, in order to know anything about the peculiarities of the range or the appropriateness of the name by which it is called. The Rocky Mountains form the grand divide which separates the waters that flow into the Atlantic from those that flow into the Pacific ocean. It is an interesting fact



that there is a point not far from Fremont's Peak called the Three Tetons, from which can be seen, at the same time, the beginnings of the Lewis or south fork of the Columbia river, the Yellowstone, a confluent of the Missouri, and the Green river, a branch of the Colorado. Like children, that are sheltered under one roof in infancy, then find their devious ways into the great world, and take upon themselves each his own duties, and lie down at last in far distant graves, so these rivers, starting from one birthplace, run their courses in different directions and find different fates in the end. The Lewis fork, after turning southward, and then westward, and again northward, unites with the north fork of the Columbia, and the two together joining their forces for the purpose, break their way through the Cascade mountains that vainly place themselves in the path to impede their progress. In the accomplishment of this great undertaking, these united rivers, now forming a unit, originate some of the grandest scenery in the world, and then go on peacefully for one hundred and fifty miles to find the ocean they have been so long seeking. The Yellowstone, taking an opposite direction, after furnishing fields of delight for the naturalist and a national park for the country, makes its way to the Missouri river, and through that into the Gulf of Mexico and the Atlantic ocean. Finally, the Green river goes southward and westward till it reaches the Colorado river, and having entered into partnership with this stream the two go together to the Gulf of California, and through that flow into the Pacific ocean.

The plateau between the Rocky and the Sierra Nevada mountains has an average width of one thousand miles,

and Prof. Whitney says that it nowhere descends to less than four thousand feet above sea-level. In this plateau lies the Great Basin, in which all the streams within its confines are lost because they can find no way out. The Humboldt river is on the western side of the basin, and is among the rivers that are obliged to sink because they can no longer swim. The Wasatch and Humboldt mountains are isolated ranges within the jurisdiction of the Great Basin, or forming its eastern rim, and separating it from the Colorado and the land which the river drains. The Sierra Nevada mountains form the western border of the basin.

As California is the objective point in the present writing, the Sierra Nevada and the Coast Range mountains are those which most concern us and with which we shall have mainly to do. These two ranges of mountains give to California its most marked peculiarities, and have hitherto been the sources of its chief wealth. The great gold region is on the western slope of the Sierra Nevada mountains and the adjacent foot-hills. Everywhere in the Sacramento and San Joaquin valleys these two mountain ranges are seen, forming the visible and distinct lines of boundary; the Sierra Nevada range, with here and there a white-capped peak, on the east, the less pretentious Coast Range on the west.

The Sierra Nevadas are made up of a series of ranges, which average about seventy miles in width. The Coast Range consists of chains, which aggregate about forty miles in width. There is a great and essential difference in the structure and conformation of the two ranges. The Sierra Nevadas can be traced in consecutive order



for a great distance. There are two lines of culminating peaks that can be followed through the whole five hundred miles over which they extend within the boundary of California. In the Coast Range the continuity is continually broken. Everywhere there are confusion and disorder. Each mountain seems to be the product of a local cause and independent of its fellows. The minerals are different in the several eminences, which are in close neighborhood. There are peaks that elevate their heads from fifteen hundred to eight thousand feet above the sea-level, but there is no connection between them, and their direction cannot be reduced to any mathematical line. In the Sierra Nevada range there is, on the contrary, great regularity in the elevations and depressions. Prof. Whitney draws a line which he calls "the main axial line of the State," which cuts through very near all the highest peaks in the State from Mount Shasta on the north to Mount Whitney on the south. This line thus extended runs straight for five hundred miles. East of these culminating peaks there is a series of lakes, the principal of which are Klamath, Pyramid, Mono and Owen's. The highest peaks in North America are found in the southern part of the Sierra Nevadas.

The range is rich in mineral wealth beyond any other locality known in the world. It has gold hidden away in its secret places, which men are only beginning to find ways of discovering and bringing to its proper use. The greater part of the ore that has been obtained as yet has been found in the western declivity of the mountains. In less than a quarter of a century the yield of the precious metal from these fields has been nine hundred and fifty

million dollars, and they now afford thirty-seven per cent. of the whole amount of production, and ten per cent. more than Australia. Nor is gold all the wealth which these mountains contain. In the range and its offshoots, silver, copper, iron and coal are hidden away, waiting for the ingenuity and industry of man to bring them forth and convert them to use.

While these opulent mines lie beneath the surface, there are upon it the finest coniferous trees that can be found on the continent, or in the world. The habitat of the big tree is here, and well up toward heaven. No air less pure than that which rests away up a mile or so above the fogs and miasms of the world would suffice to give trees a circumference of over one hundred feet, and a height of three hundred and more. Although this tree has been found in so many localities, it is observed that all have an elevation of from four to six thousand feet above sea-level. Between the high mountains of this region there are valleys interspersed, among which are lovely nooks, where almost all kinds of fruit ripen, and the grape delights to grow, and the climate is well adapted to comfort, and conducive to health. The Sierra Nevada range is not only unsurpassed in extent and altitude by any other range in North America, but it is unequalled in its wonderful scenery, as well as in mineral and vegetable wealth. The Yosemite valley stands alone, peerless among ten thousand; yet, every year new discoveries are made of the wonders that are shut up in the high Sierras.

The wealth that has been brought out of these mountains has revolutionized the commerce of the world, and affected its civilization everywhere. In effecting this



change, wonderful energy and skill have been developed in the explorers and workers. Yet what has been is only a foretaste of that which will be. What prophet dare predict the further mighty impulses that may be given to the population of the globe by the influences that will go out from this young member of our family of States?

The Sierra Nevada mountains—as the name is popularly used—are limited to California, and extend from the Tejon pass on the south to Mount Shasta on the north, a distance of about five hundred and fifty miles. The highest peaks are in the southern part of the range. As is true of almost all high mountains, the central core is granite. In the most elevated portion of the Sierra this granite core is forty miles wide.

In both the Sierra Nevada and the Coast Range the mountain walls are often broken, and lovely valleys are thrown in between the fractured parts. There are valleys lying in the Sierra Nevadas from three to seven thousand feet above sea-level, with climates so exhilarating and delightful as to leave little to be desired. The valleys in the Coast Range are not so elevated, but they are larger and more lovely. The Coast Range has a way of furnishing the conditions for vegetable growth to the very tops of the mountains. Peaks three thousand feet high are covered with a luxuriant growth of wild oats to the very summit. In the Coast Range, and among its foot-hills, the red-wood, that other member of the *sequoia* family, has its home, and is found nowhere else. This tree, while less celebrated than its *confrère* the big tree, is more useful, and when seen in the large groves in which it stands, is scarcely less imposing.

The loftiest peaks in the Coast Range are low compared with the giants of the Sierra Nevada. Mount Hamilton, fifteen miles from San José, is the highest point seen from San Francisco. It is only four thousand four hundred feet high, ten thousand feet below the summit of Mount Shasta. It is so surrounded by other peaks not much less elevated that it is not easily distinguishable, while Monte Diablo, which is not so high by nearly one thousand feet, is much more conspicuous, because of its isolated position near the break made in the range through which the bay empties its waters through the Golden Gate into the ocean.

Going north or south from the central portion, the peaks become more elevated, as if preparing to meet the range of the Sierra Nevada on terms more nearly approaching equality. In these extremities of the range there are peaks that reach an altitude of eight thousand feet.

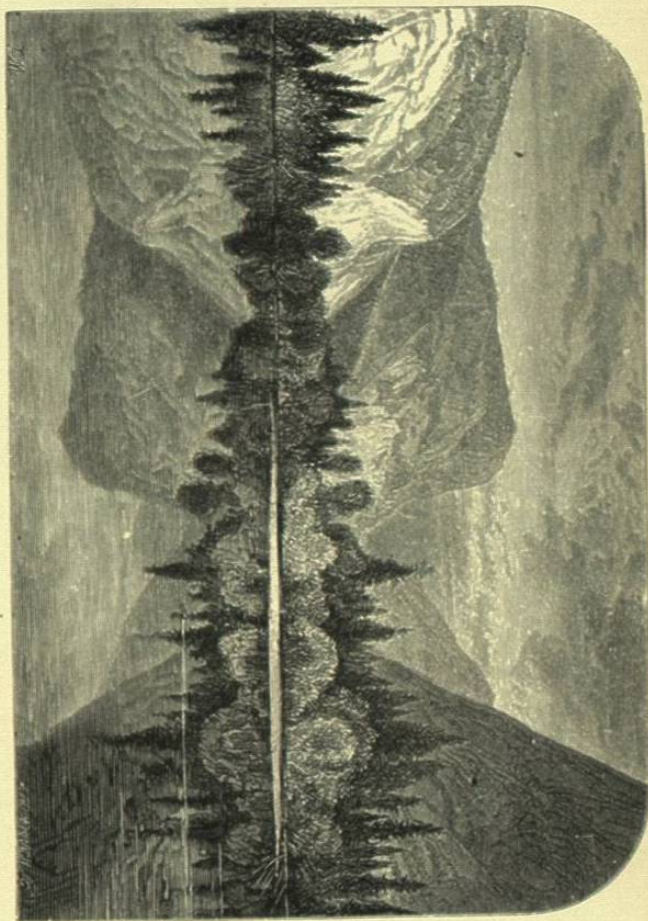
The scenery of the Coast Range is less grand than that of the Sierra Nevada. The "line of beauty" prevails very generally, and gives rounded outlines to the mountains and gentle swells to the foot-hills. The valleys are more influential in giving character to the scenery than the elevations. Nowhere else can valleys be seen that are so park-like. The tree that is oftenest met with is the oak; and no one knows how beautiful an oak may be until the specimens that prevail here are seen. Their limbs droop with the graceful sweep of the New England elm, and attain such magnitude that the trees seem to be crowned with majesty and power. It would be a very cold heart or a very critical eye to which they would not appeal successfully for admiration. There are some single oaks in the Napa valley, in the vicinity of Calistoga, that would



well pay one for going far to see. This grand and beautiful tree is the burr-oak (*Quercus macrocarpa*). The trees do not cover the ground thickly, but are scattered here and there, as though they thought too much of themselves to crowd together in herds like their common brethren. They present the appearance of having been planted by a skillful artist, who wished to produce the best scenic effect and placed them just far enough apart to make them imposing. Occasionally a live-oak is seen among them, which, being much less grand and beautiful, looks as though it might be glad to dwell in such grand company.

These Coast Range mountains occasion some confusion in the minds of strangers on account of the great variety of names by which they are called, as well as by their want of connection with one another. The Spaniards must have nearly exhausted the titles of their saints in getting denominations to apply to the different ranges. They were a very godly people, these Spaniards, judging by their familiarity with and regard for the inhabitants of the spirit-world. No name was given to anything that had not a San or a Santa prefixed. Either a masculine or a feminine saint must stand sponsor when anything was to be christened.

Of the different ranges of mountains that belong to the general family of the Coast Range, the longest, best defined and best known is the Monte Diablo range, which extends from Monte Diablo, thirty miles north of San Francisco, to Los Gatos. It covers a territory about one hundred and fifty miles long and from twenty to thirty miles wide. This range contains the only coal mines that have as yet been profitably worked in the State. It forms the western



MIRROR LAKE, WATKINS' AND CLOUD'S REST. PAGES 294 AND 295.



boundary of the great San Joaquin valley. All the mines of cinnabar or quicksilver that have as yet proved sufficiently rich to pay for working are in the Coast Range or the foot-hills adjacent.

The Coast Range inosculates with the Sierra Nevada both at its northern and southern extremity. There are spurs that cross from the one to the other range, and to which they belong can only be decided upon examination of their age. The Sierra Nevada range is entitled to the honor of seniority according to the tests of geology. Near Fort Tejon, in latitude  $35^{\circ}$ , the ranges close in on all sides, and it becomes impossible any longer to draw a line of distinction between the two great chains. So also on the north, Mount Shasta seems to be the point where they consolidate, though after a while they both spring up out of the ground again, and under new names traverse Oregon and Washington; the Coast Range taking the more ambitious name of Olympian mountains, and the Sierra Nevada exchanging its Spanish cognomen for the plain English name Cascade.