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REMINISCENCES , by John S. H. Hell OF THE PLAINS AND MINES IN '49 AND '50.1

In the beginning of a course of lectures named after the benefactor, to whose munificence the Society of California Pioneers is indebted for its new home in this magnificent building, a few introductory words may be devoted to his memory. Although he was much esteemed in our association, and although we repeatedly offered to him and urged upon him more testimonials of our gratitude and esteem than he was willing to accept, yet most of us, and perhaps all, are now ready to confess, with regret for our own blindness, that while he was among us, we did not fully appreciate the breadth of his mind, or the elevation of his motives; and in his case as in many others, breadth of mind had its origin in elevation of motive.

As year after year passes, instead of sinking into oblivion, we see that he is steadily rising in our estimate of his character and capacity. The foibles which filled our eyes while he was among us, have now sunk into relative insignificance, and we wonder at the comprehensiveness of thought and extent of information in this man, born in poverty, bred in toil, educated scantily in his boyhood, secluded in his habits through later years, and scoffed at by many of his neighbors for what they supposed to be narrow-mindedness, penuriousness, and folly. Yet now he looms up as the efficient patron of science, and art, and popular education, as a benefactor of the people, and a teacher by example to the most enlightened governments. Though ten years have elapsed since his death, the time has not yet come when his eulogy can be adequately written and duly appreciated. Not until the greatest of refracting telescopes—the construction of

¹The first of the course of Lick Lectures, delivered before the Society of California Pioneers in San Francisco, January 5, 1887.

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which has been one of the current topics of general interest through the civilized world for years—shall have been completed; not until all the institutions for which he provided shall have gone into full operation, and have shown the force of their beneficent influence,—will the public be prepared to appreciate the wisdom and generosity of James Lick.

He is entitled to the full credit for all the good results that are to accrue from his life. Many others have rendered, and will render valuable service in executing his plans, but all that they have done in that way must be counted as part of his work. All that he did through others, he himself did.

His membership in our society, and his selection of it as one of the principal recipients of his bounty, have given it honor as well as prosperity. His career besides illustrating the rewards offered by our country to judicious industry and thrift, is a stimulating example of philanthropy—an example that will be rivaled, and we hope surpassed by other Californians of even more comprehensive minds and greater wealth.

Before commencing my personal reminiscences, permit me to say a few words about the day when the gold was found at Coloma. At the annual celebration of this society, on the 9th of September, 1885, I delivered an address upon Marshall's discovery and following his authority which as to that point had never been publicly questioned, I then accepted as the true date the 19th January, 1848. As an attention due to the persons who were with Marshall at the time, and still living, I sent them copies of my address with requests for the correction of any errors. Henry W. Bigler replied that according to his diary the gold was found on the 24th January. I solicited copies of all the

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early entries about the gold and he sent them. The only known record of the discovery written on the day of its occurrence was made by Bigler in his diary in the following words: "Monday, January 24th. This day some kind of metal that looks like gold was found in the tail race." Azariah Smith kept a diary, making his entries only on Sundays usually, and on Sunday, January 30th, he recorded the finding of gold in the previous week, and the departure of Marshall for the fort to have it tested. letter to the Hon. John Bidwell, who had Sutter's diary, elicited the information that the first mention of the gold there was an entry on January 28th, recording the arrival of Marshall on that day with samples. three diaries are in harmony with one another, but they all contradict Marshall, whose statement, as written out by Hutchings and Parsons after the lapse of years, (no account of the discovery written in Marshall's own hand is in print,) was not based on any contemporaneous memorandum, and his memory was so vague that he said the day was either the 18th, 19th, or 20th. He added that four days after the discovery, he took some of the gold to Sutter. Now if the gold was found on the 20th or earlier and samples were taken to New Helvetia within four days, then all the diaries are false; whereas if found on the 24th, and samples were taken within four days, then all are true. A written record in regard to a date is, after the lapse of years, a much better authority than an unaided memory, but here are three written records, corroborating one another and against them is nothing but the vague recollection of a man of very loose intellectual habits. Bigler's diary stands out as the only precise authority, abundantly corroborated. The gold was found on Monday January 24th, 1848. The ascertainment of the correct date was the result of inquiries instituted at the instance of your society, the best evidence in its support, comprising the original diary of John A. Sutter from 1845 to 1848, presented by Hon. John Bidwell, and original letters from Henry W. Bigler and Azariah Smith with extracts from their diaries are, in your archives.

Two months elapsed before any one devoted himself to the business of gold washing near Coloma; three before the news of rich diggings had any perceptible influence in San Francisco; and ten before it gained much faith on the eastern side of the continent. The preparation for the migration to California from the Atlantic slope in 1849 had many features of interest to the general public as well as to the participants in them, but the mention of them this evening must be brief. The rapid succession of favorable reports from numerous distinct sources—the arrival of large amounts of gold in many foreign and domestic cities-the wonderful excitement, beginning before New Year and steadily increasing—the organization of gold-hunting companies in all the cities and large towns-the discussion whether it was wise for men to leave friends, steady business, and established law for a country where none of these existed—the study of routes of travel and methods of conveyance—the demand for ships on the seacoast, and for ox teams on the western border—the selection of provisions for use on the way and in the mines -the rules upon which messes and companies were to be governed during the tripthe advantage of oxen over horses for the journey by land—the methods of crossing huge rivers and wide deserts-the precautions to save the cattle from being poisoned by alkali, and from being stampeded-by Indians—and the departure of nearly one hundred thousand men within the year; all these are topics upon which much might be said, though there is no time to dilate upon then now.

The route of most of the overland emigrants in 1849, as in several subsequent years, was near that of the Union and Central Pacific railways; south of it for the first three hundred miles from the Missouri River; with it along the Platte for a hundred miles; north of it for a thousand miles; with it for four hundred and fifty miles along the Humboldt; and south of it one hundred and fifty miles to the Sacramento. The train of ox-teams with which I made the trip, started from the Missouri River on the first of May, crossed Green River on the sixth of July, reached the summit of the Sierra Nevada on the twenty-seventh of August, and on the seventeenth of September camped on the bank of the Sacramento. At Fort Laramie, where a record of the number of emigrants passing was kept, (the book has been lost as I learn by a letter from Lieutenant Worden, regimental adjutant now stationed there,) we were told that about thirty-five hundred wagons and ten thousand emigrants were ahead of us, and we supposed that there were about as many behind us. Gen. W. L. Elliott of this city, who was at Laramie in '49, '50 and '51, part of the time as adjutant, says that according to his recollection the total number of emigrants in 1849 was about fifty thousand, and in the next year forty-nine thousand.

Instead of following the main road all the way, our train was one of a number that left the Humboldt River near the present station of Humboldt, and took the Lassen cutoff, as it was called, though it proved to be at least a hundred and fifty miles longer than the main road. When we reached the Sacramento River we had traveled twenty-one hundred and eighty miles and had spent one hundred and forty days, or more than four and a half months since leaving the Missouri River, an average of about fifteen miles a The trip between the two rivers is now made by rail in four and a half days; and the change from four and a half menths to four and a half days is small as compared with many other changes that have occurred within the last thirty-eight years in the western part of the United States-changes most of which are to be attributed mainly to the

stimulating influence of the gold discovery.

Though not without frequent discomforts and dangers, the trip was pleasant to most of the emigrants of '49 in the front half of the line. It abounded with new sensations and interesting incidents. The throng of young men, their bright anticipations of a golden harvest, their contagious confidence and enthusiasm, the contact with fifty or a hundred trains in a day, some traveling faster than the average and others gradually falling behind, thus converting the march into a long race for the best grass and the first chance in the gold field-all these influences combined to fill us with excitement and prepare us to accept with cheerfulness the trials that under less favorable circumstances, might have worried us into continuous misery. Several times we feared that we should lose all our cattle and be subjected to great hardship; but we overestimated the danger; and neither in our train nor in our sight was there any serious lack of food, or suffering of any kind.

Without undertaking to describe the journey in detail, I shall recount a few of its episodes—limiting myself to my own experience. Others may have had more interesting adventures, but I have no distinct recollection of them.

Our route took us to the Snake River, the Southern branch of the Columbia, which we followed down several days. About sunset on the 19th of July, the day after passing Fort Hall, we camped half a mile from the stream. An Indian came to us with fish and we bought all he had. He could speak English and I asked whether he had a horse to give me for two pairs of blankets which I showed him. He said he I told him to bring the horse, but he replied that I must first come to his village, on the other side of the river, the smoke of which, perhaps, a mile away was visible. I promised to visit him, and two young men agreed to go with me. Some of our company who had been on the bank of the river made vigorous objection. They said the stream was there in a cañon, with vertical banks a hundred yards high, and there was only one place, so far as they could see, where, by a steep ravine cut through the cliff, a man could clamber down to the water. The current was a fierce rapid, the bed was full of rocks, and if we failed to make the landing in coming back we should be in great danger. This was excellent advice, but in defiance of it we three undertook the foolhardy enterprise.

When we reached the bank the last gleam of twilight had departed, and there was no moon, but the sky was clear. After tying our shirts and moccasins to our necks, and putting our other clothing where we could find it, we plunged in. A hard swim through water quite as rough as it had been described to us, took us to the other bank, and we were soon in the village. The Indian brought up several horses, and we finally agreed upon one that I should take, and that he should bring to me the next morning before sunrise, for we were to have a long drive and must start early. Returning to the river, we found to our dismay that on account of the vertical cliff we must enter the water but little above the place where we wanted to come out. The oldest entered the water first; I was the second; and the youngest-I think he was but seventeen-was the last.

When half way across, the leader shouted that he could not make the landing and would go back. I replied that I could not do better next time, and I should go on. The lad also went on, but soon said he had been carried down past the landing place, and needed my help. I told him I was out of breath with hard swimming, and could not be of any service to him. Some men of our train, waiting for us on top of the bank, called out to him that they would go down the river and help him if possible. I reached the bank and the ravine, as I sup-

posed, in which we had left our clothes, but not finding them, supposed that the men waiting for us had taken them along. I clambered up to the top of the bank and was alone there.

Numerous camp-fires were in sight, but I did not know which was that of our train. I had not taken the precaution to observe the direction from our camp to the river, and as I was short-sighted, all the fires looked equally distant, though some of them were miles away. Selecting one of the brightest—and as I supposed of the nearest—I started for it, over the plain covered with a large growth of sagebrush.

My wardrobe consisted of one cotton garment and a pair of moccasins. Though the season was midsummer, the night was cold, for we were more than four thousand feet above the sea, and a sharp wind was blowing from snow peaks that were within plain sight in daytime. I had to move very briskly to keep warm; and for fear of losing my direction, I followed a straight course without turning aside for ravine, stone, or sagebrush. In a few minutes I saw that I had selected the wrong fire, but not knowing how to correct the error I went on in the same line. Thus I walked at least eight miles until I reached a camp. A man on guard heard and saw me approaching. threw some sagebrush on the fire, and rifle in hand called out, "No Indians in camp at night." I curtly expressed a wicked wish in regard to the salvation of the Indians and kept on. He cocked his rifle, raised it, and said, "Stop or I'll shoot. No Indians in camp at night."

My reply was, "I'm as white as you are." He said, "White men don't go about that way."

I told him," There's one that does; but he has had enough of it."

This remark seemed to mollify him. He lowered his rifle, let its stock rest on the ground, and said that I spoke good English for a redskin and I might come up. He

threw more brush on the fire and when I was at his side burst into loud laughter, which I had to share when I contemplated the fringe on my shirt and the scratches on my legs. He insisted on calling up all the men of his train to share the fun before he would direct me to my camp, the position of which he happened to know. I reached it at four o'clock in the morning, and found all save one sentinel in bed, where they had been for nearly four hours. The other swimmers got out safely half a mile below where I did, and I had been given up as drowned.

The boy of seventeen was B. K. Thorne, now sheriff of Calaveras County and a member of our society. I think I make no mistake when I say that he has a higher and wider reputation for capacity, courage, and integrity than any other sheriff in the State.

When people ask me wether I know what sage brush is I feel justified in saying I do.

After all that trouble the blessed Indian did not bring the horse. We did not say blessed in those days. To complete my story and relieve you from anxiety about the breeziness of my appearance during the remainder of the journey, I will add that as none of our company knew anything about my clothes, I went for them at daylight and found them where I left them. My failure to find them in the night was explained by the fact that I got out of the cañon not by the ravine where I entered the river but by another, very similar to it, two hundred yards farther down.

Having walked about fifteen hundred miles, without finding the exertion excessive or disagreeable, I still wanted a horse, and succeeded at last in buying one near the present town of Elko. He was an Indian pony, old, lazy and sore-backed, but had two merits—first, he could easily be caught, and next, he could carry me. I took much care in saddling and riding him for

weeks until he was well, and by that time we had reached the rugged part of the Sierra, where there was no chance to ride him faster than a walk. When we descended from the mountain into Round Valley on Pitt River, I saw that there was a place to try his speed. He was fat and his back The valley waa six miles across, open level, and there was no smoke or dust indicating the presence of man. The only timber was a line of willows along the bank of the river, and that was far from the road except at one bend. On the mountain I cut half a dozen large, tough switches, for I was satisfied that my pony's laziness needed a lively stimulant. He had never made a frisky movement since I bought him, but I hoped to induce him to lay aside his dignified demeanor. Having reached the level road, I gave him a good cut with the best switch, but he did not pay the least attention to it. I then rose in my stirrups and threw all my strength into the blow. not seem to affect him in the least; I gave him a rapid succession of blows, as hard as I could strike, and he continued his slow walk as though he had not felt them. I wore out my switches, and the result was nothing but failure. Drawing a long sheath knife with a sharp point, I pricked him in the side till the blood came. That treatment was too much for him; he stopped and bit the place as if he supposed a fly was tickling him. I punched him with the knife on the other side and he bit there. When he found that the punching stopped, he resumed his walk. I gave up in despair, and in disgust struck the horse with the back of the knife before putting it in the sheath. The blow happened to fall on the hip joint, causing him to give a lively jump, after which he resumed his walk. Another blow and the same result. Then a succession of blows brought out a succession of jumps, which put all together made something like a gallop, which he kept up for a hundred yards. I stopped the blows, and he

instantly reduced his gait to a walk. The thumping and the gallop began again, and supposing, since he was an Indian pony, that an Indian yell might be a stimulus to him, I did my best in that line, and was careering along when I happened to look up and there in the road, not a hundred yards away, were three white men with rifles leveled at me. I stopped suddenly and called out "What do you mean?" They lowered their guns, and one replied, "Come up and we'll tell you." I soon recognized them as members of the Kentucky company near which we had been traveling for weeks. While camped behind the willows at the bend of the river, they heard a racket, and seeing my pony and red blanket in a cloud of dust, with a knife flashing in the sun, and a rider acting like a lunatic, came to the conclusion that an Indian had stolen the horse, and perhaps killed me, so they were about to square his account. My dress did not differ much in color from an Indian's skin, and their conduct was much more reasonable than mine.

Late one afternoon, soon after reaching Pitt River, we met a party of white men on horseback, each driving a horse with a pack. They were Oregonians from the mines on their way home, and would not stop for a talk, so I turned back and rode with them. They were the first men we had seen from the mines and we were extremely anxious to get their information. Their captain gave a very favorable account of the diggings. There was an abundance of gold in the country, an abundance of room for all the newcomers. Some of his companions were taking home about \$7,000 each as the savings of four months' work; but from most of them he had heard no precise statementsome had presumably done better, some worse; but those who had made least had saved more than they could have earned at any other employment. He had been in Reading's Diggings, which he recommended

because, being the most remote from San Francisco, they had the least mining population and more unoccupied rich ground. It would take us twenty days to reach the nearest mines. He gave me a list of camping places, with distances, names of streams, and situation of long drives without water. These road-notes I copied word for word, because since leaving the Humboldt, Fremont's report, which had previously been valuable to us, was of no further use as a guide book, and we knew nothing in advance of directions, distances, camping-places, or names of mountains and streams. I thanked the Oregonian captain for the information and took leave of the party who, by the way were never afterwards seen by white men. They were all slain by the Rogue River Indians, as was ascertained several months later.

When I reached camp after dark, I found that a large fire had been built for the occasion, and all the men in the train had seated themselves about in preparation for my report. The news about the mines was declared highly satisfactory, but when I read my list of camping places and a mention of a desert of thirty miles without water, many denounced it as nonsense. We could not be two hundred miles from the Sacramento River, or three hundred miles from the mines. It was only two days travel from the summit of the Sierra to the diggings, and we would be there in a day or two at the farthest. According to this table of distances we were to reach Feather River soon, and the accounts from California before we left the States said that there was much mining on that stream, and if men were washing there for gold before we started, they would be there vet. And then the story of a desert on the edge of the Sacramento Valley was absurd.

Their confident anticipation that we must reach the mines in a day or two gradually gave way to the conclusive proof of experience. The last day before reaching

the Sacramento Valley was harder on our cattle than any other on the whole trip, and for the first time some of our oxen gave out completely and were unable to bear the weight of the yoke. There being no grass for them to eat, we cut down oak trees, to let them browse on the foliage.

Our first impressions of California were extremely unfavorable. The region between Goose Lake and the Sacramento River on our route is highly volcanic. We went east of Mount Lassen, from which more than a hundred extinct craters can be The topography was broken by numerous steep and high ridges; the surface was dry and for long distances covered with lava; the streams were few and small; the trees were scanty and scrubby, save on one ridge where we found one of the glories of the Sierra Nevada, a magnificent forest of pine, fir, and cedar trees, including many ten feet in diameter and two hundred and fifty feet high. Beautiful as this timber was, it had no value because of its inaccessibility. We were all agreed that except for its gold such a country had no attractions for us.

Nor did we like the Sacramento Valley much better. The ground there was as dry as in the mountains; and the soil, where we examined it, so hard that ploughing was impossible. At Lassen's ranch, near the site of the present town of Vina, one hundred and fifteen miles north of Sacramento city, where we reached the Sacramento River, the only building was a small adobe house. There was no garden, no orchard, no cultivated field. Cows were numerous, but they were of the Spanish breed; longlegged, thin, agile, half-wild, and never touched by man save to be branded or slaughtered. Mo milk or butter was used on the Whether there was a white woman in the house I do not recollect. There was none in the valley farther north. or three white men employed on the ranch did nothing but ride about and look after the cattle. A few Indians, friendly,

but entirely savage, roamed about. The men did not wear a scrap of clothing, and seemed to spend their time in idleness, though each carried his bow and arrows as if looking for game. The women, dressed in skirts of flag leaves, were always busy gathering or cooking acorns or grass seeds. or plaiting water-proof baskets. cheerless surroundings for a civilized home we had never seen. Besides the occupants of Lassen's house and the Indians, the only resident was a trader who dwelt in a shelter of brush supported on a rude framework of poles. He kept flour, salt pork, whisky, and other necessaries of life, and his entire stock seemed to me worth about \$200 at Eastern prices. Though the next house to the northward was forty miles away, and the nearest one to the southward probably twenty, he had done a lively business. His price for flour was 75 cents a pound, and when I asked his opinion of the mines he reached down under his counter of rough boards supported on barrels, and drew out a large sheet iron pan, apparently one-third full of gold-much more than I had ever before seen at one time, and the first gold dust I had seen. He said the amount was \$15,000, and he had received it for goods sold in that store to men passing to and from the mines.

After resting three or four days at Lassen's, we yoked up our teams and started for Reading's Diggings. We had gone forty miles before we saw another house, and that was a rude shanty on the bank of Cottonwood Creek, where A. J. Cox, afterwards editor of a newspaper in the town of Sonoma, had a store. We passed his establishment, forded the creek, and camped on the northern bank. Soon afterwards two wagons from the other direction camped near us. When we had finished our supper and saw that our neighbors had finished theirs, we went to visit them. The circumstances of the country suggested and custom permitted the liberal use of direct questions be-

tween utter strangers, to ascertain whence they came, whither they were going, what they knew and what they had heard about the different mines, and so on. These men were ready with their information, but its general tenor was doleful. Reading's Diggings were not rich when discovered and had been dug out. There was not a good claim in the district. The miners generally were not making expenses, and most of them intended to leave soon, so as to avoid the famine that would begin when the winter rains made it impossible to bring in more provisions. They urged us to turn about and go with them to the Yuba mines, which they knew were rich.

We went back to our wagons much discouraged and sat for a while at our fire discussing the time that we must lose by looking at Reading's Diggings, before going to the Yuba. While we were thus occupied, three men came to our fire, and on our invitation sat down. They said they were on their way from the mines to Sacramento, whence they would return before November. They had spent four months in Reading's Diggings and had done well there, as did nearly everybody. When told that six men in the adjoining camp declared that the diggings were exhausted, their comment was that some men would not prosper anywhere, but so far as they had heard, there were fewer failures in Reading's Diggings than any where else. Their statements were pleasant to us; we believed them and were encouraged.

Our first view of the mines was near the Lower Springs, now the town of Shasta. The country is hilly and was then covered with a scattered growth of pine, fir, and oak trees. The soil was red; the scanty growth of herbage among the trees was yellow for lack of moisture: the gullies were dry. Numerous holes with piles of dirt or gravel near them indicated the places where the miners had been at work. The first miner we saw was sitting in such a hole, perhaps seven feet

deep and three feet across, and with a butcher knife he scratched the bedrock before him, occasionally stopping to pick up a particle of gold which he put into a blacking box. We camped at the Lower Springs, the farthest point to which wagons could go, (the head of whoa-haw navigation it was called,) though farther on, according to report, the diggings were richer.

On account of the lack of water, the only method of mining practicable near the Lower Springs was that of scratching with a knife, and we devoted our energies to it for weeks; but the result was failure for all of our company. This was a kind of work that needed considerable skill in the selection of claims, and even when we struck good places we did not find most of the gold in them. An old miner advised us to go to the Middle Bar of Clear Creek, ten miles away, where we would have wet diggings and could learn to wash with the pan and rocker before the beginning of the wet season, of which we would get the full benefit, and meantime we could take out ten dollars a day at least. Accepting this advice, we moved in October to the Middle Bar and remained there through the winter.

This bar wastat the lower end of a long, deep, steep cañon in a rich auriferous region, and at its side was a flat, perhaps half a mile long, a quarter of a mile wide, and twenty feet above the level of the stream. The hills bordering on the northern side of the flat had numerous gullies, all of which were rich in gold, and some of them extremely rich. The precious metal was not only abundant, but it was distributed pretty evenly over a considerable extent of country and mostly within two feet of the surface, so that it could be found without much skill and taken out without much labor. very soon learned to use the pan and rocker and were satisfied with our success on the bar until we were driven from it by the rains and the rising creek. All the gullies then had an abundance of water and we went to

work in them with our rockers. They were much richer than the bar. Two men working together would frequently come home in the evening with \$150 or \$200; and \$40 or \$50 for two was considered a moderate yield.

Let me explain briefly the geological character of the diggings. Where granite and slate exist together, there auriferous quartz is found. When the rocks were disintegrated by exposure to sun, air, heat, cold, water, and ice, their particles moved faster than the heavier gold, which in many places remained within a short distance of the spot where it was liberated from its matrix. sunk down into the clay, and found protection in crevices of the rock. The sharp corners and rough edges of many lumps bear witness that they could not have had much attrition from stones, as they would have had if they had moved far. Indeed, numerous leads can be distinctly traced to the quartz veins which supplied all their gold. Most of the metal however is in smooth, small particles, which have evidently been carried considerable distances, and this is especially true of the gold found in the lower valleys far from the original sources.

Although much of the metal in nearly every gully was in small particles, many gullies produced many pieces of uniform shape and size, so that the miners could at a glance recognize them as characteristic of a certain ravine. From one we got gold closely resembling cucumber seed; from another, pumpkin seed; from another, beans; from another, peas; from another, flaxseed, and so on. One ravine on account of its big lumps, many of them as large as English walnuts, but of very irregular shape, was called Bullion Creek during the winter when it had a good flow of water, and is now known as Buljin Gulch.

The placer washings are mostly in the beds of streams, or gullies, into which the metal has been carried from the hill sides. The gullies in the diggings have usually from a foot to four feet of earthy matter cov-

ering the bedrock. The top layer consists of loose gravel, under which is clay mixed with sand, gravel, and boulders. The miner throws off the loose gravel, and washes the clay, which becomes richer as he approaches the bed rock. The pan, rocker, and sluice are devices for agitating the clay in water until it dissolves, and is ready to run off with the sand and gravel, leaving the heavier gold behind. We read of golden sands, but in Reading's Diggings, the bulk of the pay dirt consisted of clay, and in some places gravel; of sand the quantity was relatively small, and the gravel and sand were not distinctly visible until after the clay had been washed away from them.

In pan washing, the miner having filled, his pan with pay dirt, carried it to the water and with his fingers stirred the mass round till the clay came off from the larger stones, which he threw out. Shaking the pan in the water till the smaller stones were freed from clay, he gradually allowed the lighter matter to escape over the edge, until nothing save the gold remained behind.

The rocker bears some resemblance to a child's cradle. On top it is a riddle box into which the pay dirt is cast, and there it is shaken while the miner pours on water until the gravel is clean, and can be thrown away. The water, dissolved clay, sand, fine gravel, and gold fall to the floor of the rocker, where the gold is caught by cleats, while the lighter material runs off.

The rocker was the most efficient device for washing gold at Clear Creek, while I was there. A sluice or long wooden trough a foot wide and deep, with a swift current six inches deep running through it, would have enabled us to make ten times as much in a day as we did with a pan.

Unfortunately for me, soon after the rains began I had an attack of fever, which confined me to my bed for two months while the water was abundant, the diggings the richest, and the personal experiences in mining the most exciting.

About the middle of January I became strong enough to take short walks about the camp, and to become better acquainted with the miners than I would have been had I been quite well and hard at work. The flat had a population of perhaps one hundred and fifty white men. There were no women, no children, no colored people of any shade. There was no store, no mechanics' shop, no gambling den, no hotel, boarding house, or restaurant; no rum shop, no lawyer's office, or demoralizing institutions of any kind. I never heard of a dollar being bet there at any game of chance.. Monte, common in San Francisco, Sacramento, and most of the mining camps, was unknown even by name in the Middle Bar. There was no quarreling about claims; no fighting, much less any homicide. until spring came did we hear of any stealing, though gold was left lying about in considerable quantities. There was not a place within ten miles where a glass or bottle of whiskey could be bought, and there was no drunkenness except in two men who would on rare occasions walk to the Lower Springs, and bring a bottle back with them. There was only one noisy man in the camp, a young Canadian, full of the most boisterous but always innocent merriment, and he was always spoken of as Hell-roaring Io. His family name, unknown to the residents of the camp generally, was Voshay, and is now familiar in Shasta and Trinity Counties. and also in Arizona. In all my travels I have never seen a more peaceful, orderly, and happy community; and their good conduct is a strong evidence of the general high character of the overland emigrants of 1849. The fact that there was only one white woman within fifty miles, indicated a condition of society that could not be permanent and that deprived the men of many beneficent influences which necessarily go with the companionship of ladies; but the good order prevalent without their help does the more credit to the lone miners. I limit

my statement to the Middle Bar of Clear Creek in the Winter of '49 and '50. Of that place during that period, I speak from direct observation, and the condition of other camps in Reading's Diggings was presumably as creditable. Some of the men who then and there lived most orderly lives, may afterwards, under the influences of greater temptation, have become disreputable characters, but the majority of the outcasts and criminals numerous in some of the mining districts, came from the large cities of the Atlantic Coast and from the islands and seaports of the Pacific, where before the gold discovery they had spent years in idleness and dissipation.

The bill of fare in the mines was about the same as it had been on the plains. The staples were beans, bread, rice, bacon, salt pork, dried apples, coffee, sugar, and occasionally fresh meat. Fresh fruit, milk, butter, and eggs could not be had at any price. Our dried apples protected us against scurvy. White beans baked with bacon were the most common dish, and combined the palatable and nutritious qualities in the degrees needed for hand work better than any other kind of food regularly obtainable under the circumstances. For more than a year I did not taste a cultivated fresh vegetable-for some potatoes that I bought in April, after they had sprouted, could hardly called fresh. I paid \$1.50 a pound for them at the Lower Springs; and for the sake of old acquaintance, immediately peeled one and ate it raw. That was after the roads opened in the spring; through the winter the price of provisions at the Lower Springs was \$2 a pound—flour, beans, rice, bacon, coffee, tea-all \$2 a pound; and those miners at the Middle Bar who had not laid in a stock of provisions at the beginning of winter walked ten miles to get these supplies and carried them so far on their backs.

Our domestic life was simple. The general rule was that the cooking, wood-chopping, fire-making, water-carrying, and other

kinds of household work should be so divided round that each should have an equal share and all go out mining together and return together to the cabin, which was left unguarded and unlocked-and indeed, many of the cabins had nothing for a door save a piece of tent-cloth, an anticipation of the fashionable portières. Everyone took care of his own knife, fork, spoon, tin cup, and tin plate, and washed his own clothes. The underclothing was of coarse colored cotton or wool; they hid the dirt and washed easily. Starched shirts, polished boots, and stovepipe hats were never seen, and would have exposed the wearer to discouraging practical jokes.

Sunday was a day of rest from the ordinary routine of labor. The pious spent it in reading, writing letters, conversation, and walking. The worldlings washed and mended their clothes, and went out prospecting and hunting. There was no gathering for religious purposes, and so far as I recollect, no death or burial; certainly no wedding nor christening.

The routine of the week day was to rise, cook, and eat breakfast before day, by the light of the fire, as candles were very dear; each put the bedclothes on his own bunk in order, and all started off for their claims, usually carrying with them materials for their own meal. When it became too dark to work in their claims they started back, cooked and ate their supper, chopped wood, prepared for breakfast, and then sat for several hours before a large open wood fire, conversing or rarely playing cards, but never for money.

In January there was relatively little rain; the small gullies dried up, and the richest places near the Middle Bar were worked out. Some of the miners, unable to make more than \$10 a day, wanted to hunt for new diggings on the headwaters of the Cottonwood, the bald red hills of which were plainly visible from high points near our camp. Rumor said diggings were found there in the

previous summer by miners who were driven out by the Indians, and it said further that the diggings were marvelously rich. Not understanding the geological influences under which the gold was distributed as we found it in the placers, the miners generally supposed it not improbable that spots would be found where a man could shovel out a bushel of gold dust in a day. Many hoped to get such claims, and for the sake of finding them would abandon others where they could make \$40 or \$60 a day. William Scott, who was at Sutter's Mill when the gold was found there, and a man of some intelligence, was working a year or two later in a claim that yielded \$700 a day to himself and each of his partners, but they abandoned it to go to another ravine where they were told that men were making \$1100 a day and there was much unoccupied ground. When they reached the place they found that all the good claims were taken up, and when they returned to their old claim, they found that taken up too.

The Cottonwood prospecting party, consisting of twelve men under Abraham Cunningham as captain—he still lives in Shasta County as a man highly respected—left the Middle Bar on the second of February. As we were going into the midst of hostile Indians, six of us were armed with rifles-useful for getting game as well as for fighting redskins-and six had shovels and pans for prospecting. Each man carried bread supposed to be sufficient for ten days, and blankets; but as deer were abundant we hoped to get venison. A sharp axe, carried by turns, was to provide fire wood. At the end of the first day's march we cut down a large oak tree. Its trunk for twenty feet made a back log for our camp fire, and the remainder of the tree supplied an abundance of wood, some of which was to be put on by any one who woke in the night and felt the want of more heat. Our camping place was always near a multitude of manzanita bushes which we cut and piled up in a circular wall, through which the Indians could not shoot their arrows.

Early on the second day some Indians appeared on the hill tops on each side of the valley, in which we were traveling. They watched us and frequently called out to each other, from height to height. Before noon we had to cross from one little valley to another, passing over a hill, the crest of which was Sare, with chaparral on each side. We advanced to pass through that open space, which was perhaps fifty yards wide, and when within three hundred yards of it we heard a terrific yelling from that hill top as if five hundred redskins had collected there and were preparing to attack us. A few moments later we saw a string of Indians running along the brow of the hill across the open space from one clump of chaparral to the other, and this continued so long that we imagined that five hundred men at least must have passed in our sight. The meaning of their conduct was unmistakeable; they meant fight. Five hundred redskins with bows and arrows in the midst of their own mountainous country covered with chaparral and timber, against twelve white men of whom only six were armed with guns.

We stopped to consider what we should do-retreat, stop and build a brush fortification, or advance. Cunningham ordered us to go on without delay; the greatest danger for us would follow any exhibition of fear. We went forward at once, not without quicker heart-beating, as we neared the chaparral behind which the savages disappeared. No enemy showed himself to resist our advance, and when we reached the summit of the hill and looked down on the other side we saw perhaps three dozen Indians at a safe distance, running as fast as their legs could carry them, and beyond was a rancheria, a village, from which the squaws were hurrying with children and baskets into the chaparral. We sat down to rest and consider whether there was an ambush, but we soon agreed that the few

Indians whom we saw had run over the brow of the hill where we could see them, and had then run back out of sight so that they could make a long string and thus convey the idea of a large force. This explanation did not account for the noise, but we afterwards learned that they had wonderful voices, perhaps resulting from their habit of speaking to one another from mountain to mountain.

For two days we went forward with the Indians continually watching us and surrounding us, keeping out of rifle range however, so long as they could see where we were. They had been in the habit of stealing horses, oxen, provisions, clothing, and tools from the mines, and the Oregonians had sent out several expeditions to recapture the stolen property and punish the theft by shooting down every redskin within range of their rifles. Our party was probably supposed to be out with such a purpose, and could not have been treated with more show of hostility. Nothing but fear of our superior weapons saved us from attack. But they misunderstood us. We had no grievances to avenge nor spite to gratify. Before starting we determined that we would make no unprovoked attack on the aborigines; our feelings and our interests were all in favor of peace. Several times on the third day, while following us in the hill and chaparral, the Indians lost sight of us, and trying to find us came very near us, where we saw them before they saw us. Once a party of them were within ten steps of us, looking for us to their right while we sat in a clump of bushes at their left, amused at their movements. Something caused a loud laugh among us, and they, seeing us near, jumped and dodged in a most extraordinary manner, as if they expected to hear the rifles' crash at every instant. If they believed before that we were on the warpath, our conduct then set them to doubting and prepared them for more kindly thoughts of us.

The next morning we rested on a grassy

hillside west of Duncan's Fork, and decided that we would make peace with the redskins if possible. Two unarmed men of our party went towards a few of them on the grassy hillside east of the creek, and called out to them "Amigo," Spanish for friend, and waved green boughs and a blue cloak as signs of amicable purpose. Gradually other redskins collected on the eastern hill until several hundred were visible. When our patience was almost exhausted, a buck perhaps eighteen years old and a boy of ten came up to our two peacemakers and were induced to come over to our party. We shook hands with them, gave them presents, and did our best to gain their confidence. The young man made a speech with excellent voice and gestures. His manner would have done no discredit to an eminent white orator. There was no meaning for us in his words, but much in his looks, his tones, and his gestures. He pointed to his friends on the opposite hill, he put his hand on his breast, and then raised it towards the heavens as if swearing that he and his tribe had always been friends of the white man; and then pointing to the northeast where the miners were and to the southeast while speaking angrily he assured us, as we imagined, that the tribe to the southeast the ones who did all the stealing. spoke so loudly that his friends on the opposite hill heard aud applauded him. exander R. Andrews, one of our party and of the Kentucky Company, now a lawyer and prominent citizen of Shasta, says in his account of our expedition published in the Shasta Directory for 1881, that they were three-quarters of a mile away. After this speech was finished, a very old man and a boy trusted themselves in our power, and we made presents to them also, and before the middle of the afternoon they all deserted the eastern slope and came over to us, and from that time the most friendly relations prevailed between them and us.

Not having been able to separate, we had

neither killed any deer nor prospected for gold, and now that we had made peace we could do both. We divided up into pairs, three of hunters and three of prospectors, each pair taking a separate course. Some Indians accompanied the hunters, and rendered excellent service in pointing out the places where the deer could be killed, and in tracking them when wounded. evening we had a full grown buck and two large fawns for supper. The heads, hides, hearts, lungs, and entrails were given to the Indians, who were evidently delighted with their share. The twelve white men ate every particle of their meat that, evening for supper. They were hungry, and there was only a quarter of a deer for each man. were astonished at our own appetites. prospectors had found nothing of note. We did not give up our precaution of building a manzanita fort, which was a protection against the cold wind as well as against a possible surprise by the Indians.

The next day we again separated in pairs for hunting and prospecting, and in the evening we had two full grown deer, which we divided as before, and again our portion was entirely consumed for supper. We did not wait, however, to cook the liver, but taking Cunningham's advice and following his example, ate it raw with a little pepper and Hunger overcame prejudice at the start, and we agreed that raw deer's liver from a freshly killed animal is a delicious morsel. We had now been away from our cabins five days, and we had not only eaten our five deer, but all the bread that had been supposed to have been enough for ten days. The next day we separated without breakfast, to search for gold and deer, ap_ pointing as usual a place farther on where we should meet in the evening. My companion was a Mr. Davis, and we were prospectors. About noon we became so hungry that we began to pick out and eat acorns from the holes in the bark of the oak and pine trees, in which they had been

placed by the woodpeckers. The rains coming from the south had soaked and spoiled the acorns on that side of the trees, but on the north side the acorns were dry and sound, though presumably many of them were several years old. They were dry, hard, and bitter, but the sauce of hunger made them welcome. Having observed the Indians eat a kind of pepper grass, we tried it and found it good, and a pleasant variation from the bitter acorns.

In the afternoon Davis and I found rich diggings. We came to a gully so steep that the bedrock was bare in places, and there in the clear water we could see the particles of gold, some weighing as much as a quarter of an ounce. In half an hour each had picked up on the point of his knife \$45 worthnearly three ounces. We went down the gully to where it was not so steep, and from a pan of surface dust washed out five dol-We tried several other places and found as much. We came to the conclusion that we could make \$500 a day in these gullies with a rocker. We went to several other gullies and found prospects nearly as good, and that without going down to the bedrock-for we did not feel strong enough on our scanty diet to do any hard work.

Tuttle and Batchelder, another pair of the prospectors, had also found good diggings in several large gullies, though like us they did not go down to the bedrock. They had, however, a much larger piece of the metal to show; it weighed an ounce, and it was in a shovelful of the top dirt which they threw away. A metallic ring struck their ears and a little search led to the finding of this piece, as long and wide as the bowl of a soup spoon, and in one place a quarter of an inch thick. Tuttle was confident he could wash \$500 a day in his ravine, and Davis promised as much in ours; and more than \$60 were shown as vouchers by the prospectors, who said there was an abundance of pay dirt but they had not anywhere gone through it to the bedrock.

Hungry as we were our party was very jovial that evening. We supposed that we were each sure of several hundred thousand dollars. The general estimate was \$500,000. We discussed the methods of transporting our treasure to the East and the uses we would make of it. Occasionally one would go off to a pine tree and pick out some acorns. Andrews said that only one thing was needed to make his happiness perfect, and that was a good dinner of pork and beans. Some merriment was caused by recalling the fact that when at the Middle Bar he had been in the habit of saying that he would be perfectly happy if he could have a supper of ham and eggs and a dance with a When he had nothing bet-Kentucky girl. ter than acorns he thought pork and beans good enough for the highest enjoyment; but when he had an abundance of pork and beans, then he longed for ham and eggs. There was a sliding arrangement to his scale of felicity.

We made fun of our situation. When we found wormy acorns we offered them to our neighbors. We wondered whether Nebuchadnezzar's pasture was more palatable than ours. We agreed to gather the pepper grass seed when it ripened and send it to our Easter the purpose of giving them a chance to go to grass.

Instead of starting for home the next morning we continued our journey another day, but when we met in the evening the hunters had killed no game and the prospectors had found no gold. We had to fall back on our acorns and grass. The Indians, who had come to see us every day and had furnished several men to accompany each pair of our hunters, seeing that we had nothing to eat, brought us a loaf of acorn bread and a basket of buckeye soup, both tasteless and full of sand, and to me less palatable than the raw acorns. We received their gifts with the show of gratitude due to their kindness.

We were all anxious to get back the next

day to Clear Creek, so we started at daylight, and all reached the Middle Bar that evening, save one who arrived the next morning. For three days we had nothing to eat save acorns and grass, with a taste of acorn bread and buckeye soup. I prefer a square meal.

Then began the preparations for moving to Cottonwood, now known as Arbuckle, where we arrived several weeks later, followed by some hundreds of Oregonians, who had heard at the Lower Springs of our rich diggings and wanted to share them. Our party, consistingof twelve prospectors and their respective partners, twenty-four in all, took up as claims the gullies that we had prospected, leaving the remainder of the country to the Oregonians. We decided to work our claims as a joint stock company, but we stuck together only one week. partner and I took out \$500 the first day, the next day \$300, the third day \$150, and decreasing sums on the following days. When we divided our joint stock gold there was little more than a tin cup full-not a pint cup-for each man. When afterwards we worked together in couples, on separate account, the results were even less satisfactory. It seemed that in prospecting, we had not only struck the richest spots, but spots which were richer in the top dirt thank February and March on the bedrock. brought little rain; many of the gullies went dry soon after we reached our diggings; the Oregonians went back to the Lower Springs, after making war on the Indians, whom we could not afterwards conciliate; and before April we had returned to the Middle Bar, not only without the \$500,000 each, but poorer than if we had never undertaken our prospecting expedition.

On the first of May I abandoned the business of gold washing, and came to San Francisco. My share in a day's labor in the mines never exceeded \$50, except during the first week on the Cottonwood diggings, and often it was not more than \$10.

After deducting expenses, the year had added nothing to my capital in money, though it had added something in experience.

I remained for years in California before I felt any special attachment for the State. Business led me to study its resources as compared with those of other regions, and the wider my comparison, the stronger grew the conviction that as a chosen home for young men of enterprise, the world offers nothing better than California.

In seeking a new country, what should the emigrant ask? First, a high grade of popular intelligence, which implies mental development for himself and education for Second, good resources for his children. commerce, agriculture, and other branches of industry. Third, its territory should be vacant. A large semi-barbarous population, unable or unwilling to learn the higher arts of civilization, as in portions of Asia or Africa, is one of the greatest obstacles to progress. Fourth, though accessible without great danger or privation, it should not be within easy reach of the hordes of beggars and vagrants in densely populated regions. Just as the difficulty and expense of reaching the United States from Europe, and California from the Atlantic States have diminished, in the same proportion have deand character of the immigrants. Fifth, the new country should have a cool, equable climate, acting as a continual spur to the mental and physical energies. If mere animal comfort was the main object of life, the climatic requirement would be the first of all in importance. Sixth and last, perhaps, as a natural accompaniment of the other conditions, the government should efficiently protect the people in the enjoyment of their equal rights. If thirty-eight years ago we had looked through the wide world for a country possessing, or likely to possess these requirements within a few years, where could we have found them in the most felicitous combination?

Your reply, like mine, is California. It was fortunate for us pioneers that such a land was open and within our reach when we were about to start on the serious business of life, and it was fortunate for California that she attracted such men as were a large proportion of the pioneers. But let me not be understood as claiming perfection or exemption from criticism for either them or their adopted State. Much might be better here than it is; much remains to be improved by the generation of young men now among us and their successors. Much has been done in the past, but there is no end to the work that remains for the future

When Æneas, at the request of Dido, as we are told in Virgil's great epic, recounted the circumstances under which he had arrived in Carthage, the revival of his reminiscences filled him with unspeakable sorrow; it was like tearing open a deep and dangerous wound that had partly healed over. The conquest and destruction of Troy, the slaughter and enslavement of nearly all his relatives and fellow citizens, his compulsory flight from his native country and the severing of all his early associations, consecrated by the religion of his ancestors and by the favor of their mythical gods-such were the thoughts that pressed upon him when he explained how he came to be a wanderer in the western Mediterranean.

Not with such feelings does the pioneer of California recount the story of his travels to a new land on the verge of the sunset. As he looks back over his adventure and its motives, his predominant feelings are

pleasure and pride. He finds satisfaction in contemplating the unexampled activity, with its constant round of excitement, in the commercial and other industrial phases of Californian life during the last thirty-eight years; and as he recalls the marvelous changes that he has witnessed and the scenes through which he has passedscenes so different from those of the ordinary experience—he is sometimes tempted to wonder whether the records of his memory are not the fictions of a wild, though happy imagination. If he is not a millionaire, he has had a fair chance to be one, and perhaps has been one repeatedly in near anticipation. He has had all the fun of prolonged pursuit without the disenchantment of possession, and he can console himself with the reflection that if he and all his fellow pioneers had become millionaires, California would not have been large enough to hold them. He has remained within the limits of his own country, or if a foreigner by birth, he came to a land which gave him a cordial welcome and treated him as if he were one of her native sons. He has contributed to enrich the State and to solidify and glorify the Union. He has seen the influence of his enterprise acting as a beneficent stimulus throughout the civilized world. He knows that of all the long land migrations of large bodies of men recorded in history since the earliest ages, none was more peaceful in the purposes and effects, none more satisfactory to its participants, and none more beneficial within a life time to a large portion of mankind than the march of the gold hunters to California in 1849.

John S. Hittell.