Annotated Chapters 1 – 4 of

Across America and Asia

by Raphael Pumpelly

Compiled by Benjamin S. Murphy
www.rockingwiththerocks.com

Acknowledgements

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ACROSS

AMERICA AND ASIA

NOTES OF A FIVE YEARS' JOURNEY

AROUND THE WORLD

AND OF RESIDENCE IN

ARIZONA, JAPAN

AND

CHINA

BY

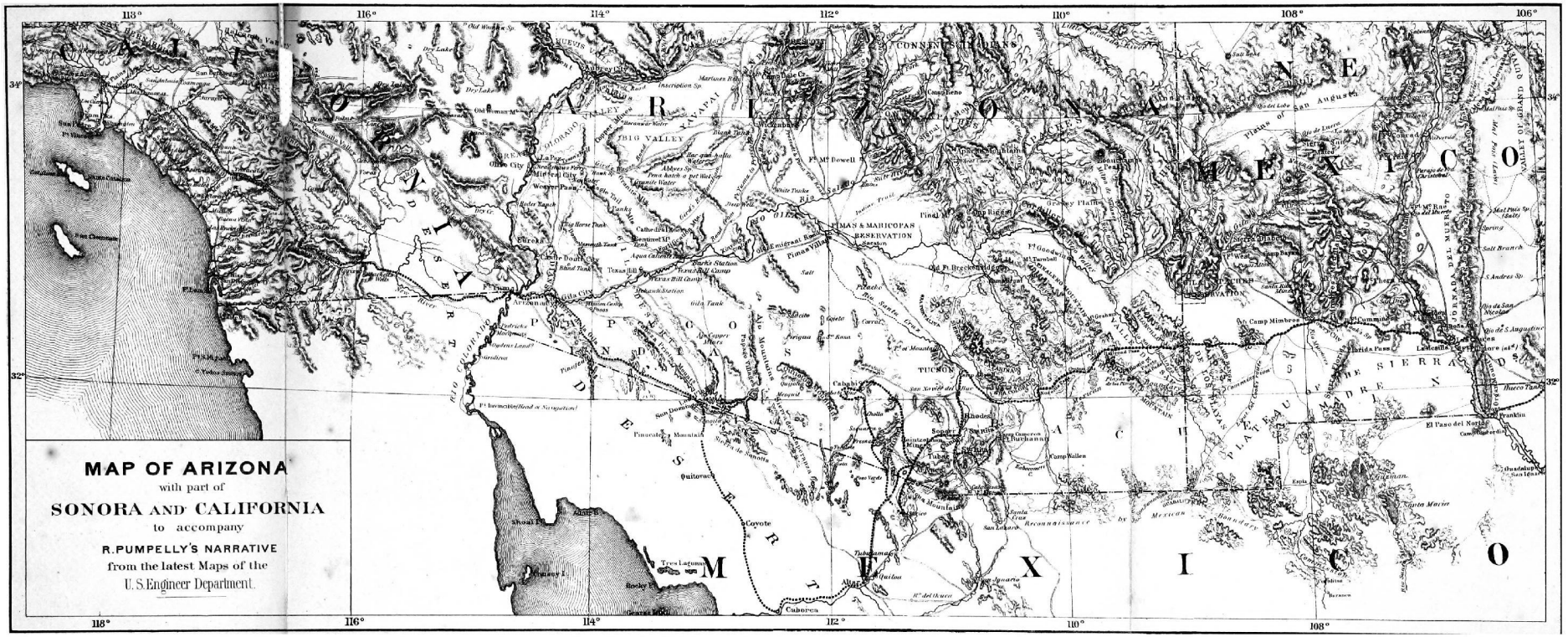
RAPHAEL PUMPELLY

Professor in Harvard University, and sometime Mining Engineer in the service of the Chinese and Japanese Governments.

SECOND EDITION, REVISED.

NEW YORK
LEYPOLDT & HOLT
1870

Raphael Pumpelly (1837-1923) was an American geologist. This text recounts his adventures in America and Asia as a contract geologist and mining engineer. The first four chapters discuss his time in Arizona (at that time, legally southwestern New Mexico Territory) just before the outbreak of the Civil War.


MAP OF ARIZONA
with part of
SONORA AND CALIFORNIA
to accompany
R. PUMPELLY'S NARRATIVE
from the latest Maps of the
U. S. Engineer Department.
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Fort Thorn
Fort Craig
Fort Stanton
Fort Webster
Fort Conrad
Fort Fillmore
Fort Breckenridge
Fort Defiance
Fort Wingate
Fort Whipple
Fort Tejon
Fort Chapman
Fort Yuma Indian Reservation
Pimas & Maricopas Reservation
Navajo Reservation
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Camp Bliss
Camp Rucker
Camp Thomas
Camp Mimbres
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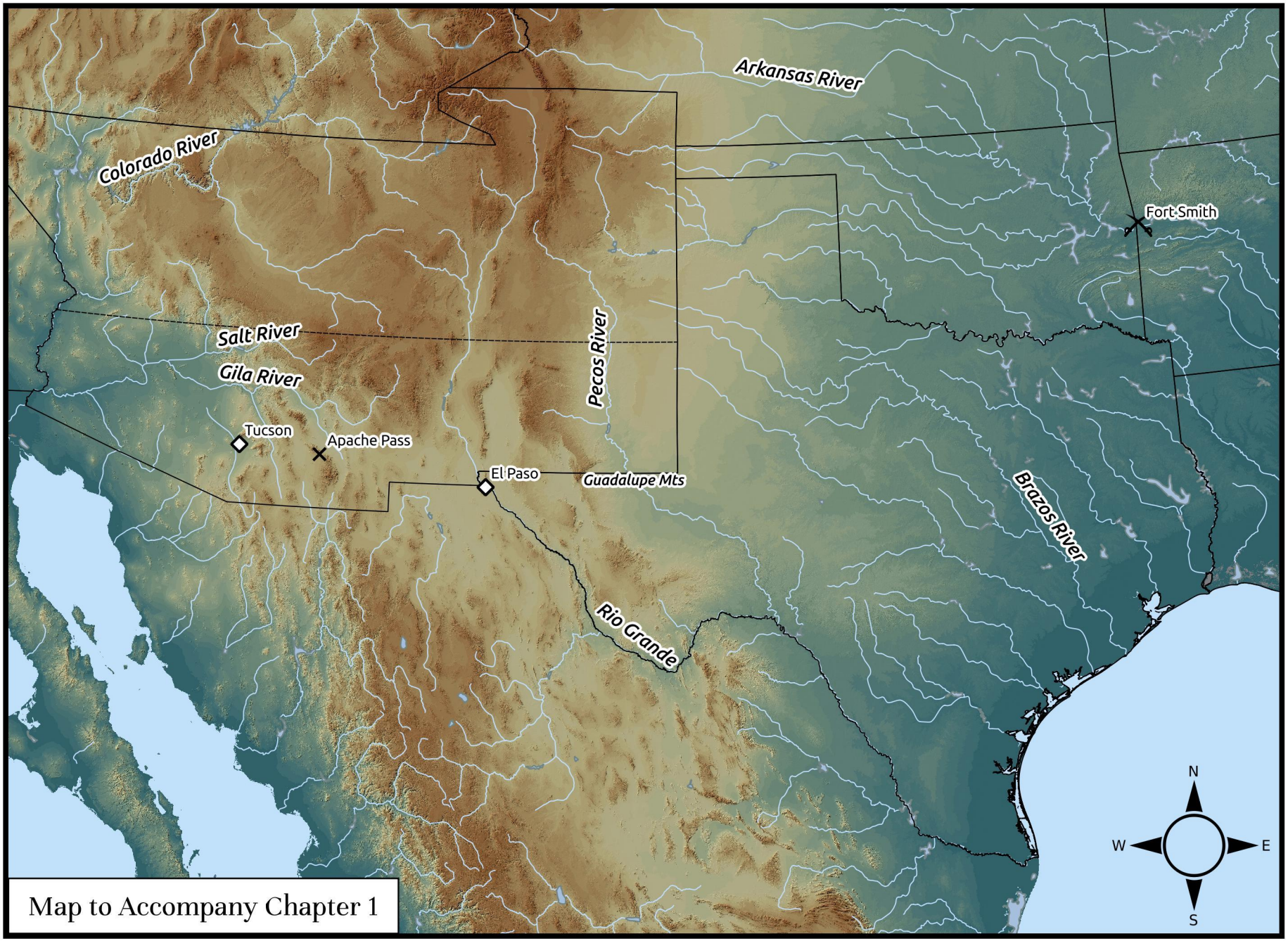

Map to Accompany Chapter 1

ACROSS AMERICA AND ASIA.

CHAPTER I.

ARIZONA.

In the autumn of 1860 I reached the westernmost end of the railroad in Missouri, finishing the first, and, in point of time, the shortest stage in a journey, the end of which I had not even attempted to foresee. My immediate destination was the silver mines of the Santa Rita, in Arizona, of which I was to take charge, as mining engineer, for a year, under the resident superintendent.

Having secured the right to a back seat in the overland coach as far as Tucson, I looked forward, with comparatively little dread, to sixteen days and nights of continuous travel. But the arrival of a woman and her brother, dashed, at the very outset, my hopes of an easy journey, and obliged me to take the front seat, where, with my back to the horses, I began to foresee the coming discomfort. The coach was fitted with three seats, and these were occupied by nine passengers. As the occupants of the front and middle seats faced each other, it was necessary for these six people to interlock their knees; and there being room inside for only ten of the twelve legs, each side of the coach was graced by a foot, now dangling near the wheel, now trying in vain to find a place of support. An unusually heavy mail in the boot, by weighing down the rear, kept those of us who were on the front seat constantly bent forward, thus, by taking away all support from our backs, rendering rest at all times out of the question.

My immediate neighbors were a tall Missourian, with his wife and two young daughters; and from this family arose a large part of the discomfort of the journey. The man was a border bully, armed with revolver, knife, and rifle; the woman, a very hag, ever following the disgusting habit of dipping—filling the

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Pumpelly was ~23 years old at the beginning of this journey.

air, and covering her clothes with snuff; the girls, for several days overcome by sea-sickness, and in this having no regard for the clothes of their neighbors; — these were circumstances which offered slight promise of comfort on a journey which, at the best, could only be tedious and difficult.

For several days our road lay through the more barren and uninteresting parts of Missouri and Arkansas; but when we entered the Indian territory, and the fertile valley of the Red river, the scenery changed, and we seemed to have come into one of the Edens of the earth. Indeed, one of the scenes, still bright in my memory, embraced the finest and most extensive of natural parks.

Coming suddenly to the brow of a high bluff we found that we had been travelling over a table-land, while beneath us lay a deep and widely-eroded valley, the further limits of which were marked by distant blue hills. The broad flat bottom-land was covered with a deep-green carpet of grass, and dotted, at intervals of a few miles, with groves of richly-colored trees. As a work of Nature it was as much more beautiful than the finest English park, as Nature had spent more centuries in perfecting it than the nobleman had spent years.

The fertile country reserved for the Indians is only partially cultivated by them. Although considerable success has attended the attempts to elevate these tribes, the ultimate result of the experiment is by no means certain. The possession of negro slaves by the Indians could not but be attended by even greater evils than the use of this labor among the white population.

Before reaching Fort Smith every male passenger in the stage had lost his hat, and most of the time allowed for breakfast at that town was used in getting new head-coverings. It turned out to be a useless expense, however, for in less than two days we were all again bareheaded. As this happens to the passengers of every stage, we estimated that not less than fifteen hundred hats were lost yearly by travellers, for the benefit of the population along the road.

After passing the Arkansas river, and travelling two or three days through the cultivated region of northeastern Texas, we came gradually to the outposts of population. The rivers became fewer, and deeper below the surface; the rolling prairie-land

covered with grass gave way to dry gravelly plains, on which the increasing preponderance of species of cacti, and of the yucca, warned us of our approach to the great American desert. Soon after our entrance into this region we were one morning all started from a deep sleep by the noise of a party coming up at full gallop, and ordering the driver to halt. They were a rough-looking set of men, and we took them for robbers until their leader told us that they were "regulators," and were in search of a man who had committed a murder the previous day at a town we had passed through.

"He is a tall fellow, with blue eyes, and red beard," said the leader. "So if you have got him in there, stranger, you need'nt tote him any further, for the branch of a mesquit tree is strong enough for his neck." As I was tall, and had blue eyes and a red beard, I did not feel perfectly easy until the party left us, convinced that the object of their search was not in the stage.

The monotony of the route across the desert was somewhat varied by the immense republics, as they are commonly termed, of prairie dogs. The plains inhabited by these animals were covered by the low mounds raised over the entrance to their burrows, and separated from each other by a distance only of a few yards. As we approached them the animals disappeared; but at some distance from us, ahead and on either side, thousands of the dogs were visible, each one squatting on the top of a mound, and regarding us with the most intense curiosity. As we came nearer, one after the other suddenly plunged its head into its burrow, and, after wagging its fat body for an instant, disappeared altogether. Here and there a solemn owl, perched at the mouth of the burrow, or a rattlesnake basking at the entrance in the sun, showed that these dwellings were inhabited by other occupants than their builders. One can scarcely picture a more desolate and barren region than the southern part of the Llano Estacado between the Brazos and the Pecos rivers. Lying about 4,500 feet above the sea, it is a desert incapable of supporting other plant or animal life than scattered cacti, rattlesnakes, and lizards. Our route winding along the southern border of this region, kept on the outskirts of the Camanche country.

Here we were constantly exposed to the raids of this fierce tribe, which has steadily refused to be tamed by the usual process of

treaties and presents. They were committing serious depredations along the route, and had murdered the keepers at several stations. We consequently approached the stockade station-houses with considerable anxiety, not knowing whether we should find either keepers or horses. Over this part of the road no lights were used at night, and we were thus exposed to the additional danger of having our necks broken by being upset.

The fatigue of uninterrupted travelling by day and night in a crowded coach, and in the most uncomfortable positions, was beginning to tell seriously upon all the passengers, and was producing a condition bordering on insanity. This was increased by the constant anxiety caused by the danger from Camanches. Every jolt of the stage, indeed any occurrence which started a passenger out of the state of drowsiness, was instantly magnified into an attack, and the nearest fellow-passenger was as likely to be taken for an Indian as for a friend. In some persons, this temporary mania developed itself to such a degree that their own safety and that of their fellow-travellers made it necessary to leave them at the nearest station, where sleep usually restored them before the arrival of the next stage on the following week. Instances have occurred of travellers jumping in this condition from the coach, and wandering off to a death from starvation upon the desert.

Beyond the Pecos river the scenery became more varied. The route lay over broad plains, where the surface sloped gently away from castellated and cliff-bound peaks. Here, from an hundred miles away, we could see the grand outlines of the Gaudaloupe mountains, planted like the towers and walls of a great fortress, to render still more difficult the approach to the great wastes lying to the north and east.

Over the hard surface of this country, which is everywhere a natural road, we frequently travelled at great speed, with only half-broken teams. At several stations, six wild horses were hitched blind-folded into their places. When everything was ready, the blinds were removed at a signal from the driver, and the animals started off at a run-away speed, which they kept up without slackening till the next station, generally twelve miles distant. In these cases the driver had no further control over his animals than the ability to guide them; to stop, or even check

them, was entirely beyond his power; the frightened horses fairly flying over the ground, and never stopping till they drew up exhausted at the next station. Nothing but the most perfect presence of mind on the part of the driver could prevent accidents. Even this was not always enough, as was proved by a stage which we met, in which every passenger had either a bandaged head or an arm in a sling.

At El Paso we had hoped to find a larger stage. Being disappointed in this, I took a place outside, between the driver and conductor. The impossibility of sleeping had made me half delirious, and we had gone but a few miles before I nearly unseated the driver by starting suddenly out of a dream.

I was told that the safety of all the passengers demanded that I should keep awake; and as the only means of effecting this, my neighbors beat a constant tatoo with their elbows upon my ribs. During the journey from the Rio Grande to Tucson my delirium increased, and the only thing I have ever remembered of that part of the route was the sight of a large number of Indian campfires at Apache pass. My first recollection after this, is of being awakened by the report of a pistol, and of starting up to find myself in a crowded room, where a score or more of people were quarrelling at a gaming table. I had reached Tucson, and had thrown myself on the floor of the first room I could enter. A sound sleep of twelve hours had fully restored me, both in mind and body.

My first thought was to make the necessary preparations for the journey to Tubac and the Santa Rita. Having soon succeeded in securing a place in a wagon which was to start in a day or two, I gave up the interval to see the little of interest in the town and neighborhood.

It was here that I first saw the effect of an extremely dry and transparent atmosphere. All the ravines and rocks of the Santa Rita mountains are distinctly visible from Tucson, a distance of more than thirty miles; and in the very dry season, as at the time of my visit, the tall pines on the summit could be clearly distinguished standing out against the sky.

Accustomed to judge of heights and distances in the atmosphere of the Eastern States and Europe, I did not hesitate, on being first asked to guess at the distance, to place it at less than ten miles.

The most interesting objects of curiosity in the town were the two great masses of meteoric iron which have been mentioned by the various travellers who have passed through this region.* These had long lain in a blacksmith shop, serving as anvils, and nothing but the impossibility of cutting them had saved them from being manufactured into spurs, knives, etc. The largest mass, half buried in the ground, had the appearance of resting on two legs; but when removed, in 1860, it was found to be a ring of iron, varying from 38 to 49 inches in its external, and from 23 to 26½ inches in its internal diameter, and weighing about 1,600 pounds. It lies now in the middle of the great hall of the Smithsonian Institution at Washington, bearing the name of the Ainsa Meteorite, having been brought, in 1735, from the Sierra de la Madera by Don Juan Bautista Ainsa, and forwarded to Washington by his descendants. The other, shaped like a slab, about 4 feet long, 18 inches broad, and 2 to 5 inches thick, weighs 632 pounds, and is now in San Francisco, having been sent thither in 1862 by General Carleton.†

Leaving Tucson early in the morning, we ascended the valley of the Santa Cruz by a sandy road. At first we passed a few patches of land cultivated by irrigation, but soon these were succeeded by the broad sandy plains of this region, relieved from absolute barrenness only by a great number of acacia trees, and a still greater abundance of cacti, of many and large varieties.

The valley of the Santa Cruz, after bending around the Santa Rita mountains, widens out north of Tubac into a broad plain, rising gently toward the Santa Rita mountains on the east, and the Tinajita mountains on the west. The material forming this plain is part of an extensive marine deposit, probably of the Quaternary age, which has filled all the valleys of the western parts of Arizona and Sonora south of the Gila river. Its depth and the loose character of its sand and gravel material causes the almost immediate disappearance of the water that falls in the rainy season, and this is only brought to or near the surface where the rocks underlying the plain-deposit rise. Thus we find only those plants growing on these plains which require the least amount of water for their sustenance.

* See "Bartlett's Explorations," Vol. II, p. 297.

† An analysis of this mass by Prof. G. J. Brush, and description of both pieces, has been given by Prof. J. D. Whitney in the proceedings of the California Academy of Sciences, Vol. III, pages 30 and 43, from which papers the above details are extracted.

See the map for Chapter 2.

A few miles brought us to San Xavier del Bac, an ancient mission founded by the Jesuits for the conversion of the Papago Indians. The mission building is still in tolerable preservation, with all the interior ornamentation and objects of worship of the chapel. The successors of the zealous founders have long since disappeared, but the Indians, with a feeling of mixed pride and superstitious reverence, guard it according to their ability as a sacred legacy.

We passed several stock ranches, situated on the river at points where water could be obtained. The houses have generally only one room, are built of sun-dried mud, and roofed with branches of the mesquit, covered with a layer of mud.

Late at night we camped about ten miles north of Tubac. Early the next morning we were startled from sleep by the approach of a wagon, which turned out to contain the Superintendent of the Santa Rita mines, Mr. H. C. Grosvenor, and a friend, who had come out to meet me.

As we continued our journey southward, the character of the country gradually changed.

For a short distance the bed of the Santa Cruz was filled with running water, and its banks supported a grove of large cottonwood trees, giving a welcome shade from the hot rays of the sun, while a heavy growth of grass covered the flat.

On our left rose the high, double-peaked Santa Rita, the highest of the mountains of Arizona south of the Gila river. A bold, precipitous spur, the Picacho del Diabolo, juts out into the valley, a promontory of naked rock, and a favorite post from which the Apache watches for the opportunity to make a raid.

Crossing the Santa Cruz, we passed the Canoa, a stockade house used as an inn, a place destined to see in the following year an awful massacre. A further ride of fourteen miles brought us to the old Spanish military post of Tubac. The restored ruins of the old village were occupied by a small mixed population of Americans and Mexicans, while near by a hundred or more Papago Indians had raised a temporary camp of well-built reed lodges.

After breakfasting we left Tubac, and travelling eastward about ten miles, now ascending the dry bed of a stream, now crossing the gravelly mesa, we reached the hacienda of the Santa Rita mines, my destination.

Arizona, at the time of my visit, comprised simply the tract of country known as the Gadsden Purchase, having been bought of the Mexican Government, through our Minister, Mr. Gadsden, for $10,000,000, to serve as a southern route for a railroad to the Pacific. Taken from the States of Chihuahua and Sonora, it was bounded by these on the south, by the Gila river on the north, the Colorado river on the west, and the Rio Grande on the east. It thus formed a long narrow strip lying between 31 and 33 degrees N., and containing about 30,000 square miles. The present boundaries of Arizona are Utah and Nevada on the north, New Mexico on the east, Sonora on the south, and California on the west.

Western Arizona* and northwestern Sonora, of which I have more particularly to speak, lie between the watershed of the Rocky Mountains and the depression occupied by the Gulf of California and the Colorado river.

This region is crossed by parallel granite ridges, running generally north or northwest, and rarely more than sixty miles long and ten to thirty miles apart. The intervals between the mountains are occupied by plains rising gently from the centre to the ridges on either side, and extending around the ends of these. Thus the whole country is a great plain, out of which rise the many outlying sierras of the Rocky range, as islands from the sea. Of these peaks probably none reach a height of 10,000 feet above the ocean, while the elevation of the plains increases gently from the level of the Gulf of California to about 6,000 feet at the watershed between the Gila and the Rio Grande.

The greater number of the mountain ridges, especially those having a northerly and northwesterly trend, are of granite, flanked near the base with crystalline schists; and to this structure is due the regularity of their sierra outlines. Districts of hilly land of much less elevation than the sierras are made up of porphyritic rocks, limestones, and metamorphic strata, of undetermined age, which give to the hills rounded outlines, broken here and there by cliffs and jagged dykes of intrusive rocks, or by metalliferous veins.

Large areas of the country were once covered by a sheet of

* Now Arizona, south of the Gila.

The basic geology here is more or less correct, although the use of the term 'Rocky Mountains' seems to be due to a limited contemporary understanding of Western geography and its relationship to geology.

volcanic rock, which now remains, capping many summits left by erosion, and forming the picturesque sombrero, or hat-hills.

The valleys, as was said above, are occupied by a thick deposit, chiefly of loose sand and angular gravel, which has filled up the inequalities of the surface.

In western Arizona and northwestern Sonora, over a belt reaching nearly one hundred miles from the coast, the fall of rain is very small, and has not been sufficient to cut even the smallest of water-courses in the loose deposit of the plains. But further east, as we approach the higher land and the Santa Rita mountains, the annual precipitation is greater, and broad valleys with cañons are everywhere cut deep into the plains, leaving these last to be represented only by the mesas or terraces remaining between the valley and the sierras on either side.

Properly speaking, the whole region in question has no rivers excepting the Gila, the bed of which above its junction with the Salinas river is often, and below that point sometimes, dry. Bartlett supposes the Gila river to be navigable as far as the Salinas with small flat-bottom boats, during the season of high water. The little rain that falls over a vast region fills the water-courses for only a few hours, after which what is not evaporated sinks, to follow its under-ground course through the loose sand of the stream bed.

Where the water collects during the rainy season in natural rock tanks, or in clayey depressions in the soil, it quickly evaporates, leaving a crust of soda, lime, and potash-salts, which, spread as they often are over large areas of the desert region, aid in heightening the effect of the mirage.

Climatic influences have given a marked and peculiar character to the vegetation of this part of the continent. Toward the coast of the Gulf of California the plains are barren and arid deserts, where the traveller may ride hundreds of miles without seeing other plants than dry and thorny cacti. Granite mountains bordering these deserts are even more awful in their barrenness; neither tree nor cactus, nor even a handful of earth, can be seen on their sides; they tower high above the plains, great masses of white rock reflecting the rays of the sun with dazzling brilliancy.

The only supplies of water to be found over an area of many

The 'Salinas' River is presumably the Salt River (Rio Salado).

thousand miles, are at a few points in the mountains, where the rains leave in natural tanks enough to last for a few months. During the rainy season, which sometimes fails, shallow pools are formed in slight depressions on the surface, to be exhausted after a few days' exposure to the fierce rays of the sun.

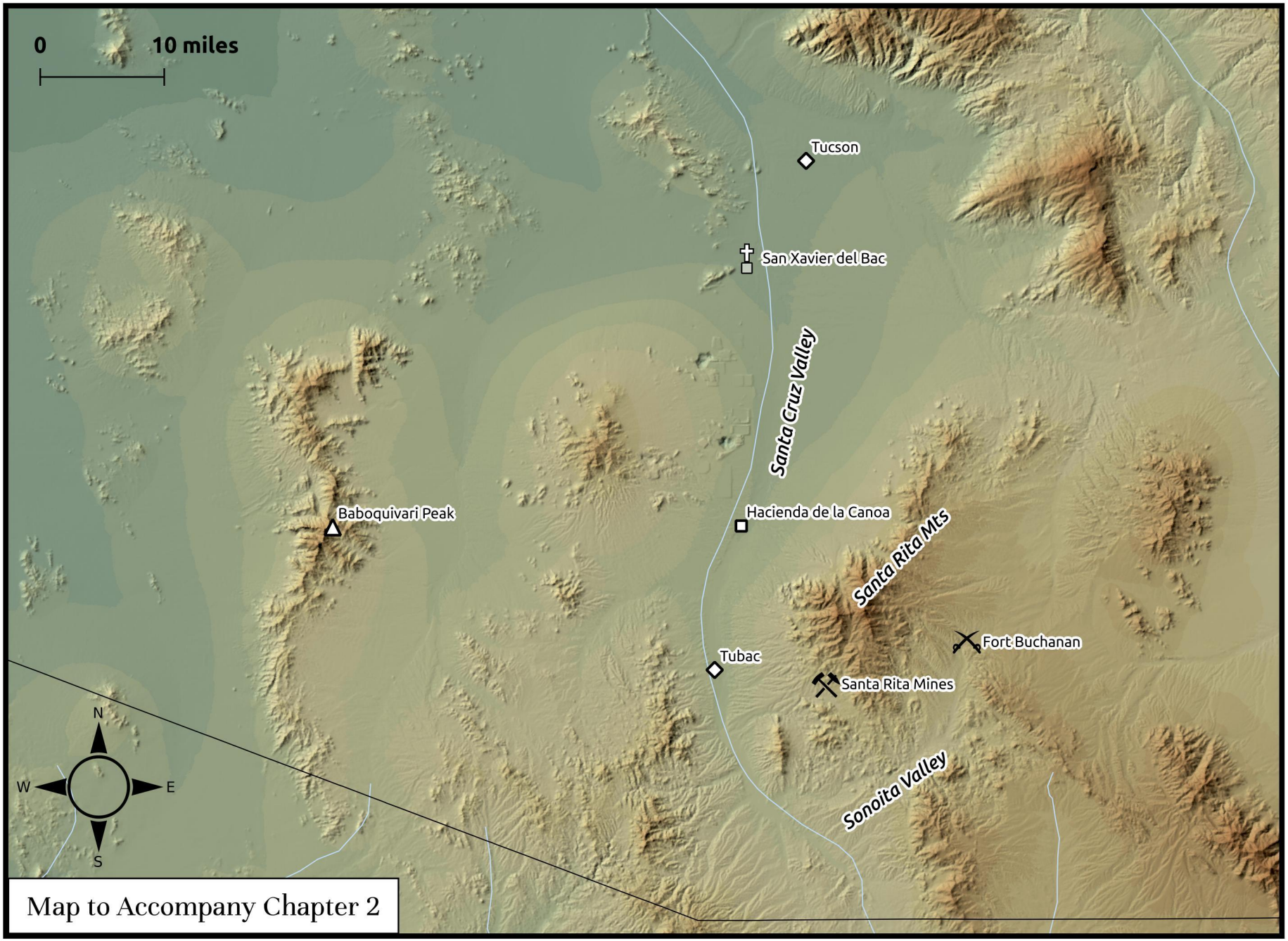
Further from the coast, the plains begin to show more vegetation; gradually appear the palo-verde, the mesquit, and a greater variety of cacti, and on the hills scattered saguaras (the giant Cereus). Still further east appears a denser growth of mesquit and palo-verde, out of which rises a perfect forest of the gigantic columns of the saguaras, covering the lowlands and foot-slopes of the Baboquiveri range. Between these mountains and the peaks of the Santa Rita, the character of the country changes; the plains are cut in the direction of the longer axis by the deep valleys, which receive tributary cañons from the mountains on either side. All that here remains of the original plains are the mesas or table-lands lying between the river and the sierras.

These mesas, consisting of loose gravel and sand, retain much of the desert appearance, but they are clothed with a hardy grass, and stunted acacias. In many of the valleys the bottom-lands have an extensive growth of the bean-bearing mesquit; and large cottonwood trees, and in some places fine groves of ash, shade the beds of streams in the neighborhood of hidden or running water.

On the hill-sides, above the level of the mesas, are scattered the dwarf live-oaks of the country, the trees varying from twelve to twenty-five feet in height, and presenting the appearance of old apple-orchards. Higher up the mountain-sides the oaks are mingled with cedars, and at an elevation of about 6,000 feet above the sea begin the few pine forests of this part of the Rocky Mountains.

The abundant growth of grass, and the mildness of the winters, render central Arizona a country well adapted to grazing. But away from the Gila river, excepting at a few scattered points, there is no land suitable for cultivation, owing to the absence of water for irrigation. On the extensive bottom-lands of the Gila, the ruins of long-fallen towns and of large aqueducts, and widely distributed fragments of pottery, indicate the former occupation of this region by an ancient and industrious population, related

probably to the scattered remnants of the Moqui race, who are fast dying out in their strongholds on the high table-lands of the Colorado river, their last refuge from the more savage tribes by which they are now surrounded. The widely-spread traces of their arts, and the ruins of their many-storied buildings, sometimes built of stone, prove that this race once cultivated great areas of country which are now desert wastes.



Map to Accompany Chapter 2

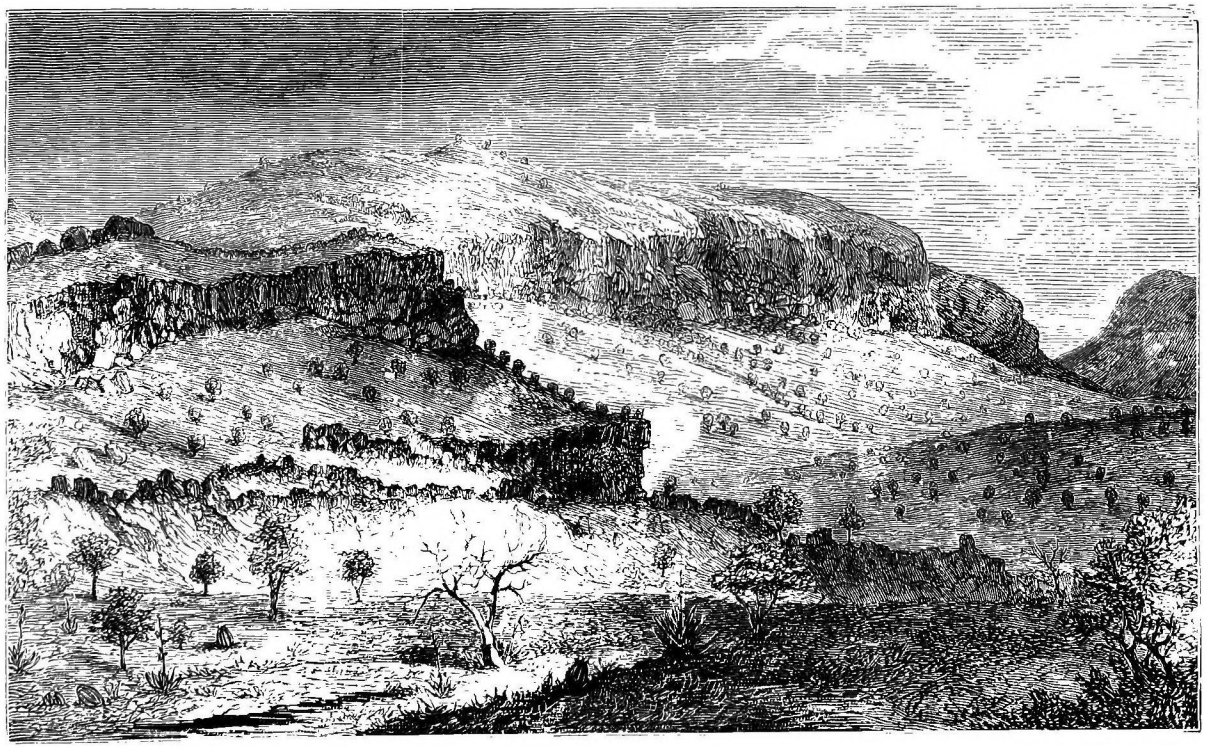
CHAPTER II.

LIFE AT THE SANTA RITA.

THE hacienda of the Santa Rita mines, which was to be my home, lay in a broad and picturesque valley, shut in on the north by the lofty range of the Santa Rita mountains, and on the south by high and castellated cliffs of dark porphyries and white tufa. Through the open valley, toward the west, towering over fifty miles of intervening country, the horn-like peak of the Baboquivori mountain was always visible, its outline sharply cut on the clear sky. The Santa Rita valley consists mainly of mesa-land, its outline broken by jagged rocks, rising like islands from the plain, or by the round-backed spurs from the mountains. The surface of these spur-hills is roughened by a net-work of innumerable mineral veins.

The drainage from the mountains passes through the valley in a deeply-cut cañon, containing here and there a little water, while throughout the rest of the valley, with the exception of two or three small springs, water can be had only by digging. The tree growth has the characteristics of the country given in the last chapter. A few cottonwoods occur along the water-courses, and a good growth of mesquit trees and acacias covers the bottom-land. The mesa is the home of a great variety of cacti, the yucca, and the fouquiera, a shrub sending up from the root a large number of simple stems, covered with sharp thorns, and in the season bearing beautiful flowers. Scattered live-oaks twenty to thirty feet high are peculiar to the spur hills. As we approach the summits of the higher hills the live oaks give place to small cedars, while on the Santa Rita mountains, at an elevation of about 6,000 feet, begins an invaluable but limited growth of fine pine timber.

The whole valley and its enclosing hills are covered with abundant grass of several kinds, which, while of great importance to the country, give to it a parched appearance. It is in reality a crop of hay, never being green excepting where burnt off before



THE SANTA RITA VALLEY.

the rainy season. The peculiar effect of this vegetation is heightened by the abundance of the short columnar fish-hook cactus, the yucca, the broad thorn-pointed leaves of the Spanish bayonet, and the tall lance-like stem of the century plant, bearing its gracefully-pendant flowers.

The scenery of Arizona, dependent in great part on its climate and vegetation, is unique, and might belong to another planet. No other part of the world is so strongly impressed on my memory as is this region, and especially this valley. Seen through its wonderfully clear atmosphere, with a bright sun and an azure sky, or with every detail brought out by the intense light of the moon, this valley has seemed a paradise; and again, under circumstances of intense anxiety, it has been a very prison of hell.

A few days after my arrival at the mines, in company with Mr. H. C. Grosvenor, the agent, I started on a journey to Fort Buchanan, twenty-two miles distant. Our route lay in part through a rocky and gloomy defile, along one of the war-trails of the Apaches leading into Sonora. From the countless tracks in the sand it was evident that a successful party of raiding savages had returned with a large drove of horses and mules.

A few miles before reaching the fort we stopped at the house of an Arkansas family, one of the daughters of which had escaped most remarkably a few months before from Indian captivity and death. She had been married the previous year, and had accompanied her husband to the Santa Rita mountains, where with a party of men he was cutting timber. While alone in the house one day, she was surprised and taken off by a small band of Apaches, who forced her to keep up with them in their rapid journey over the mountain ridges, pricking her with lances to prevent her falling behind. The poor woman bore up under this for about ten miles, and then gave out altogether, when the savages, finding they must leave her, lanced her through and through the body, and throwing her over a ledge of rocks, left her for dead. She was soon conscious of her condition, and stopping the wounds with rags from her dress, she began her journey homeward. Creeping over the rough country and living on roots and berries, she reached her home after several days. I was told that the first thing she asked for was tobacco, which she was in the habit of chewing.

'Spanish bayonet' is a type of yucca.

Fort Buchanan was established in the summer of 1857. It was abandoned with the onset of the Civil War. Camp Crittenden was established near the site of this fort after the Civil War.

Continuing our journey through the valley of a tributary of the Santa Cruz river, we reached our destination — Fort Buchanan. This fort, like most of our military establishments in the Rocky Mountains, consisted simply of a few adobe houses, scattered in a straggling manner over a considerable area, and without even a stockade defence. What object the Government had in prohibiting the building of either block or stockade forts, I could never learn. Certainly a more useless system of fortification than that adopted throughout the Indian countries, cannot be well imagined. In this case the Apaches could, and frequently did, prowl about the very doors of the different houses. No officer thought of going from one house to another at night without holding himself in readiness with a cocked pistol. During the subsequent troubles with the Indians, when the scattered white population of the country was being massacred on all sides for want of a protection the Government was bound to give, the commandant needed the whole force of 150 or 200 men to defend the United States property, while with a better and no more costly system of fortification this could have been accomplished with one quarter that number, and the lives of many settlers saved by the remaining force.

The next day, after riding out with Lieutenant Evans to see some springs which are forming a heavy deposit of calcareous tufa, we started on the return journey. We had passed a thicket about 500 yards from the fort, and had gone a little distance beyond this, when we met a man driving a load of hay. In a few minutes, hearing the report of a gun, we looked back, but having made a turn in the road and seeing nothing, we rode on our way. Several days afterward, I learned that the man we had met had been killed by Indians hidden in the thicket, and that the shot we heard was the one by which he fell. The Apaches were probably few in number, as they did not attack Grosvenor and myself.

The victim was a young man from the Southern States, and a letter in his pocket showed that he had been to California to free and place in safety a favorite slave. On his way home, finding himself out of money, he had stopped to earn enough to carry him through, when he died the common death of the country. Four years later, my successor, Mr. W. Wrightson, and Mr. Hop-

Southwestern forts generally lacked stockades since the fighting almost always occurred elsewhere. However, as Pumpelly notes here, this fort building approach did have significant drawbacks.

kins were killed at this same thicket by Apaches, who afterwards massacred the few soldiers left to garrison the fort.

The valley of Santa Rita had been, it is said, twice during the past two centuries the scene of mining industry; and old openings on some of the veins, as well as ruined furnaces and arastras, exist as evidence of the fact. But the fierce Apaches had long since depopulated the country, and with the destruction of the great Jesuit power, all attempt at regular mining ceased.

The object of the Santa Rita Company was to re-open the old mines, or work new veins, and extract the immense quantities of silver with which they were credited by Mexican tradition. In Mexico, where mining is the main occupation of all classes, tales and traditions of the enormous richness of some region, always inaccessible, are handed from generation to generation, and form the idle talk of the entire population. The nearer an ancient mine may be to the heart of the Apache stronghold, the more massive the columns of native silver left standing as support at the time of abandonment. It is not strange, therefore, when we consider how easily our people are swindled in mining matters, that we find them lending a willing ear to these tales, and believing that "in Arizona the hoofs of your horse throw up silver with the dust."

The capital of our company was not proportionate to the results expected to be achieved, and the work before us was correspondingly difficult. Everything had to be done with the means furnished by the country. We needed fuel, fire-proof furnace materials, machinery and power, and the supply of these furnished by nature in Arizona was of a kind to necessitate a great deal of trouble and experimenting, when taken in connection with the peculiar character of our ore. This and the work of exploration and opening of the veins kept me closely occupied through the winter.

The season was promising to pass without our hacienda being troubled by the Indians, when one morning our whole herd of forty or fifty fine horses and mules was missing. There were no animals left to follow with, and the result of a day's pursuit was only the finding of an old horse and two jackasses.

Several times during the remainder of the Winter and Spring

we were attacked by Apaches, and our mines were the scene of more fighting than any other part of the territory.

Aside from this, little of note occurred, until news came that the troops were to be recalled, leaving the country without any protection. The excitement was very great among the settlers, who were scattered over the country in such a manner as to be unable to furnish mutual assistance.

To make the matter worse, the military began an uncalled-for war with the Apaches. In the beginning of April, I believe, some Indians, of what tribe was not known, carried off a cow and a child belonging to a Mexican woman living with an American. Upon the application of the latter, the commandant at Fort Buchanan dispatched a force of seventy-five men to the nearest Apache tribe. The only interpreter attached to the expedition was the American who was directly interested in the result.

Arriving at Apache pass, the home of the tribe, the lieutenant in command raised a white flag over his tent, under the protection of which six of the principal chiefs, including Cachees, one of the leaders of the Apache nation, came to the camp and were invited into the tent.

A demand was made for the child and cow, to which the Indians replied, truly or falsely, that they knew nothing of the matter, and that they had not been stolen by their tribe.

After a long parley, during which the chiefs protested the innocence of their tribe in the matter, they were seized. One of the number in trying to escape was knocked down and pinned to the ground with a bayonet. Four others were bound, but Cachees seizing a knife from the ground, cut his way through the canvas and escaped, but not without receiving, as he afterward told, three bullets fired by the outside guard.

And this happened under a United States flag of truce. At this time three of the most powerful tribes of the nation were concentrated at Apache pass, and when Cachees arrived among them, a war of extermination was immediately declared against the whites.

The next day they killed some prisoners, and in retaliation the five chiefs were hung. Our troops, after being badly beaten, were obliged to return to the fort.

In the meantime, orders came for the abandonment of the ter-

Here Pumpelly refers to the Bascom Affair, named after the lieutenant placed in charge of this military operation. The sequence of events described here occurred between late January and early February of 1861. 'Cachees' is the Chiricahua Apache chief Cochise. His band did not steal the cattle and the child (rather, a different Apache tribe committed the raid), yet a lack of understanding between his people and the military caused what some consider to be the start of the Apache Wars.

ritory by the soldiers. The country was thrown into consternation. The Apaches began to ride through it rough-shod, succeeding in all their attacks. The settlers, mostly farmers, abandoned their crops, and with their families concentrated for mutual protection at Tucson, Tubac, and at one or two ranches.

When, in addition to this, the news came of the beginning of the rebellion at the East, we decided that as it would be impossible to hold our mines, our only course was to remove the portable property of the company to Tubac. We were entirely out of money, owing a considerable force of Mexican workmen and two or three Americans, and needed means for paying for the transportation of the property, and for getting ourselves out of the country.

As the Indians had some time before stopped all working of the mines, our stock of ore was far too small to furnish the amount of silver needed to meet these demands, and our main hope lay in the possibility of collecting debts due to the company. In pursuance of this plan I started alone but well armed to visit the Heintzelman mine, one of our principal debtors. The ride of forty miles was accomplished in safety, and I reached the house of the superintendent, Mr. J. Poston, in the afternoon. Not being able to obtain money, for no one could afford to part with bullion, even to pay debts, I took payment in ore worth nearly $2,000 per ton, with a little flour and calico. This was dispatched in the course of the afternoon, in charge of two of the most fearless Mexicans of the force at the mine.

The next morning I started homeward alone, riding a horse I had bought, and driving before me the one that brought me over. I had so much trouble with the loose animal, that night found me several miles from our hacienda.

Only those who have travelled in a country of hostile Indians know what it is to journey by night. The uncertain light of the stars, or even of the moon, leaves open the widest field for the imagination to fill. Fancy gives life to the blackened yucca, and transforms the tall stem of the century plant into the lance of an Apache. The ear of the traveller listens anxiously to the breathing of his horse; and his eye, ever on the alert before and behind, must watch the motions of the horse's ears, and scrutinize the sand for tracks, and every object within fifty yards for the lurking-place of an Indian.

Still, night is the least dangerous time to travel, as one is not easily seen so far as by day. But after a few night journeys I found the mental tension so unbearable that I always chose the day-time, preferring to run a far greater risk of death to being made the prey of an overstrained imagination. Then, too, in such a state of society as then existed, the traveller in the dead of night approaches a solitary house, perhaps his own, with much anxiety, the often occurring massacres of the whites and Mexicans by Indians, and the as frequent murders of the Americans by their own Mexican workmen, rendering it uncertain whether he may not find only the dead bodies of his friends.

About three miles from the hacienda, in the most rocky part of the valley, the horse in front stopped short, and both animals began to snort and show signs of fear. There could be little doubt that Indians were in the neighborhood. Both horses started off at a run-away speed, leaving all control over either one out of the question. Fortunately, the free horse, taking the lead, made first a long circuit and then bounded off toward the hacienda, followed by my own. After a break-neck course over stony ground, leaping rocks and cacti, down and up steep hills, and tearing through thorny bushes, with clothing torn and legs pierced by the Spanish bayonet, I reached the house.

The wagon with the ore, although due that morning, had not arrived, and this was the more remarkable as I had not seen it on the road. When noon came the next day, and the ore still had not arrived, we concluded that the Mexicans, who knew well its value, had stolen it, packed it on the mules, and taken the road to Sonora.

Acting on this supposition, Grosvenor and myself mounted our horses, and, armed and provisioned for a ten days' absence, started in pursuit.

We rode about two miles, and descended to the foot of a long hill, making a short cut to avoid the bend of the wagon-road, which for lighter grade crossed the dry bed of the stream a few hundred yards higher up.

We were just crossing the arroyo to climb the opposite hill, when looking up we saw the missing wagon just coming in sight and beginning the descent. One of the Mexicans rode a wheel mule, while the other was walking ahead of the leaders. We had

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'Spanish bayonet' is a type of yucca.

evidently judged our men wrongly, and when Grosvenor proposed that we should go on and come back with them, I objected, on the ground that the Mexicans, seeing us prepared for a long journey, would know at once that we had suspected them. We therefore decided to turn back, but taking another way homeward we immediately lost sight of the wagon. After riding a few hundred yards we dismounted at a spring, where we rested for a quarter of an hour, and then rode home.

As the afternoon passed away without the arrival of the wagon, we supposed it had broken down, and at twilight Grosvenor proposed that we should walk out and see what caused the delay. I took down my hat to go, but, being engaged in important work, concluded not to leave it, when my friend said he would go only to a point close by, and come back if he saw nothing. It was soon dark, and the two other Americans and myself sat down to tea. By the time we left the table, Grosvenor had been out about half an hour, and we concluded to go after him.

Accompanied by Mr. Robinson, the book-keeper, and leaving the other American to take care of the house, I walked along the Tubac road. We were both well armed; and the full moon, just rising above the horizon behind us, lighted brilliantly the whole country. We had gone about a mile and a half, and were just beginning to ascend a long, barren hill, when, hearing the mewing of our house-cat, I stopped, and, as she came running toward us, stooped and took her in my arms.

As I did so, my attention was attracted by her sniffing the air and fixing her eyes on some object ahead of us. Looking in the direction thus indicated, we saw near the roadside on the top of the hill, the crouching figure of a man, his form for a moment clearly defined against the starlit sky, and then disappearing behind a cactus. I dropped the cat, which bounded on ahead of us, and we cocked our pistols and walked briskly up the hill. But when we reached the cactus the man was gone, though a dark ravine running parallel with our road showed the direction he had probably taken. Of Grosvenor we yet saw nothing. Continuing our way at a rapid pace and full of anxiety, we began the long descent toward the arroyo, from which we had seen the wagon at noon. Turning a point of rocks about half-way down, we caught sight of the wagon drawn off from the road on the further side of the arroyo.

An example of how the West was won with the help of cats.

The deep silence that always reigns in those mountains was unbroken, and neither mules nor men were visible. Observing something very white near the wagon, we at first took it for the reflected light of a camp-fire, and concluded that the Mexicans were encamped behind some rocks, and that with them we would find our friend. But it was soon evident that what we saw was a heap of flour reflecting the moonlight. Anxiously watching this and the wagon, we had approached within about twenty yards of the latter when we both started back—we had nearly trodden on a man lying in the road. My first thought was that it was a strange place to sleep in, but he was naked and lying on his face, with his head down-hill. The first idea had barely time to flash through my mind, when another followed—it was not sleep but death.

As we stooped down and looked closer, the truth we had both instinctively felt was evident—the murdered man was Grosvenor.

It would be impossible to describe the intensity of emotion crowded into the minute that followed this discovery. For the first time I stood an actor in a scene of death; the victim a dear friend; the murderers and the deed itself buried in mystery.

The head of the murdered man lay in a pool of blood; two lance-wounds through the throat had nearly severed it from the body, which was pierced by a dozen other thrusts. A bullet-hole in the left breast had probably caused death before he was mutilated with lances. He had not moved since he fell by the shot that took his life; and as the feet were stretched out in stripping the corpse, so they remained stretched out when we found him. The body was still warm, indeed he could not have yet reached the spot when we left the house.

I have seen death since, and repeatedly under circumstances almost equally awful, but never with so intense a shock. For a minute, that seemed an age, we were so unnerved that I doubt whether we could have resisted an attack, but fortunately our own situation soon brought us to our senses. We were on foot, two miles from the house, and the murderers, whoever they might be, could not be far off, if indeed the spy we had seen had not already started them after us. Looking toward the wagon, I thought I could discover other bodies, but we knew that every instant of time was of great importance, and without venturing to examine closer we started homeward.

There was only one white man at the hacienda, and a large number of peons, and we did not yet know whether the murderers were Indians, or Mexicans who would probably be in collusion with our own workmen.

If they were Indians, we might escape by reaching the house before they could overtake us; but if they were our Mexicans, we could hardly avoid the fate the employé at the house must already have met with.

Taking each of us one side of the road, and looking out, one to the left, the other to the right, our revolvers ready, and the cat running before us, we walked quickly homeward, uncertain whether we were going away from or into danger. In this manner we went on till within a half a mile of the houses, when we reached a place where the road lay for several hundred yards through a dense thicket—the very spot for an ambush. We had now to decide whether to take this, the shorter way, or another, which by detaining us a few minutes longer would lead us over an open plain, where we could in the bright moonlight see every object within a long distance. The idea of being able to defend ourselves tempted us strongly toward the open plain, but the consciousness of the value of every minute caused us to decide quickly, and taking the shorter way we were soon in the dark, close thicket. As we came out into the open valley, the sensation of relief was like that felt on escaping untouched from a shot you have seen deliberately fired at you. Just before reaching the house, we heard Indian signals given and answered, each time nearer than before; but we gained the door safely, and found all as we had left it; the American, unaware of danger, was making bread, and the Mexicans were asleep in their quarters. We kept guard all night, but were not attacked.

Before daylight we dispatched a Mexican courier across the mountains to the fort, and another to Tubac, and then went after Grosvenor's body. We found it as we had left it, while near the wagon lay the bodies of the two Mexican teamsters.

We were now able to read the history of the whole of this murderous affair. The wagon must have been attacked within less than five minutes after we had seen it at noon, indeed while we were resting and smoking at the spring not four hundred yards from the spot. A party of Indians, fifteen in number, as

we found by the tracks, had sprung upon the Mexicans, who seem unaccountably not to have used their firearms, although the sand showed the marks of a desperate hand to hand struggle. Having killed the men, the Apaches cut the mules loose, emptied the flour, threw out the ore, which was useless to them, and drove the animals to a spot a quarter of a mile distant, where they feasted on one of them and spent the day and night. A party was left behind to waylay such of us as might come out to meet the team. When Grosvenor neared the spot he was shot by an Indian, who, crouching behind a cactus about ten feet distant, had left the impression of his gunstock in the sand. Knowing well that their victim would be sought by others, they had left the spy we had seen; and had not the cat directed our attention to him at the moment when he was moving stealthily away, thereby causing us to walk rapidly to the scene of the murder, and faster back, we could hardly have escaped the fate of our friend.

During the day Lieutenant Evans arrived with a force of nine teen soldiers, having with difficulty obtained the consent of his commandant, and soon after Colonel Poston reached the mines with a party of Americans. Graves had been dug, and, after reading the burial service and throwing in the earth, we fired a volley and turned away, no one knowing how soon his time might come.

I now foresaw a long and dangerous work before us in extracting the silver from our ore. We could, indeed, have abandoned the mines, and have escaped from the God-forsaken land by accompanying the military, which was to leave in two weeks. But both Mr. Robinson and myself considered that we were in duty bound to place the movable property of the company in safety at Tubac, and to pay in bullion the money owing to men, who without it could not escape. To accomplish this would require six weeks' work at the furnace, crippled as were all operations by the loss of our horses and mules.

It was of the first importance that we should increase our force of Americans, not only for protection against the Apaches, but more especially against the possible treachery of our Mexican workmen, for at almost every mine in the country a part or all of the whites had been murdered by their peons. One of the party which had come that day from Tubac was engaged on the

spot. Partly in the hope of getting a small force of soldiers who should remain till the abandonment began, and partly to persuade an American who lived on the road to the fort to join us, I resolved to accompany Lieutenant Evans, who was obliged to return the next day.

Taking with me a young Apache who had been captured while a child, and had no sympathy with his tribe, I rode away with Lieutenant Evans, intending to return the next day. The wagon-road lay for ten miles along a tributary of the Sonoita valley, then ascended the Sonoita for twelve miles to the fort, while a bridle-path across the hills shortened the distance some two or three miles by leaving the road before the junction of the two valleys. To reach the house of the American whom I wished to see, we would have to follow the wagon-road all the way; and as more than a mile of it before the junction of the valleys lay through a narrow and dangerous defile, on an Apache war-trail that was constantly frequented by the Indians, Lieutenant Evans would not assume the responsibility of risking the lives of his men in a place where they would be at such disadvantage. While I felt obliged to acknowledge that it would be imprudent to take infantry mounted on mules through the defile, it was of the first necessity that I should see Mr. Elliot Titus, the American living near the junction of the valleys. At the point where the hill-trail left the road, bidding good-bye to Lieutenant Evans, who, could he have left his men, would have accompanied me himself, I was soon alone with Juan, my Apache boy. As we neared the gorge I observed that Juan, who was galloping ahead, stopped suddenly and hesitated. As I came up he pointed to the sand, which was covered with fresh foot-tracks.

It was evident that a considerable party of Indians had been here within half an hour, and had dispersed suddenly toward the hills in different directions. Our safest course seemed to be to press forward and reach Titus's house, now about two miles off. We were on good horses, and these animals, not less alarmed than ourselves, soon brought us through the defile to the Sonoita creek. To slip our horses' bridles without dismounting, and refresh the animals with one long swallow, was the work of a minute, and we were again tearing along at a run-away speed. We had barely left the creek when we passed the full-length im-

pression of a man's form in the sand with a pool of blood, and at the same instant an unearthly yell from the hills behind us showed that the Apaches, although not visible, were after us, and felt sure of bringing us down. Our horses, however, fearing nothing so much as an Indian, almost flew over the ground and soon brought us in sight of Titus's hacienda. This lay about two hundred yards off from the road in a broad valley shaded by magnificent live oaks.

As we rode rapidly toward the houses I was struck with the quietness of a place generally full of life, and said so to Juan.

"It's all right," he replied; "I saw three men just now near the house."

But as we passed the first building, a smith's shop, both horses shied, and as we came to the principal house, a scene of destruction met our eyes.

The doors had been forced in, and the whole contents of the house lay on the ground outside, in heaps of broken rubbish. Not far from the door stood a pile made of wool, corn, beans, and flour, and capping the whole a gold watch hung from a stick driven into the heap. Stooping from the saddle I took the watch and found it still going.

As I started to dismount, to look for the bodies of the Americans, Juan begged of me not to stop.

"They are all killed," he said, "and we shall have hardly time to reach the road before the Indians come up. Promise me," he continued, "that you will fight when the devils close with us; if not I will save myself now."

Assuring the boy, whom I knew to be brave, that I had no idea of being scalped and burned without a struggle, I put spurs to my restless horse, and we were soon on the main road, but not a moment too soon, for a large party of Apaches, fortunately for us on foot, were just coming down the hill and entered the trail close behind us. A volley of arrows flew by our heads, but our horses carried us in a few seconds beyond the reach of these missiles, and the enemy turned back. Slackening our speed we were nearing a point where the road crossed a low spur of the valley-terrace, when suddenly several heads were visible for an instant over the brow of the hill and as quickly disappeared. Guessing instantly that we were cut off by another band of Indians, and

knowing that our only course was to run the gauntlet, we rode slowly to near the top of the hill to rest our animals, and then spurred the terrified horses onward, determined if possible to break the ambush. We were on the point of firing into a party of men who came in full view directly as we galloped over the brow of the hill, when a second glance assured us that instead of Apaches they were Americans and Mexicans, burying an American who had been killed that morning. It was the impression of this man's body which we had seen near the creek. He had been to the fort to give notice of the massacre of a family living further down the river, and on his return had met the same fate, about an hour before we passed the spot. An arrow, shot from above, had entered his left shoulder and penetrated to the ribs of the other side, and in pulling this shaft out a terrible feature of these weapons was illustrated. The flint-head, fastened to the shaft with a thong of deer-sinew, remains firmly attached while this binding is dry; but as soon as it is moistened by the blood, the head becomes loose, and remains in the body after the arrow is withdrawn. The Apaches have several ways of producing terrible wounds; among others by firing bullets chipped from the half oxidized mats of old furnace-heaps, containing copper and lead combined with sulphur and arsenic. But perhaps the worst at short range are produced by bullets made from the fibre of the aloe root, which are almost always fatal, since it is impossible to clear the wound.

On reaching the fort and seeing the commandant, I was told by that officer that he could not take the responsibility of weakening his force, and that the most he could do would be to give me an escort back to the Santa Rita. As the troops from Fort Breckenridge were expected in a few days, I was led to expect that after their arrival I might obtain a small number of soldiers. But when, after several days had passed without bringing these troops, the commandant told me that not only would it be impossible to give us any protection at the Santa Rita, but that he could no longer give me an escort thither, I resolved to return immediately with only the boy Juan. In the meantime a rumor reached the fort that a large body of Apaches had passed through the Santa Rita valley, had probably massacred our people, and were preparing to attack Tubac. I was certainly never under a

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Fort Breckenridge was established at the confluence of Aravaipa Creek and the San Pedro River (southeast of Superior, northeast of Tucson on the north side of the Santa Catalina Mountains) in May of 1860. It was abandoned the following year with the beginning of the Civil War. The site was then reoccupied after the Civil War as ('Old') Camp Grant.

stronger temptation than I felt then to accept the warmly-pressed invitation of the officers, to leave the country with the military, and give up all idea of returning to what they represented as certain death. But I felt constrained to go back, and Juan and myself mounted our horses. I had hardly bid the officers good-by when an old frontiersman, Mr. Robert Ward, joined us, and declared his intention of trying to reach his wife, who was in Tubac. As we left the fort a fine pointer belonging to the commandant followed us, and as he had become attached to me, we had no difficulty and few scruples in enticing him away to swell our party. We took the hill trail, it being both shorter and safer, and had reached a point within three miles of the Santa Rita without meeting any very fresh signs of Indians, when the dog, which kept always on the trail, ahead of us, after disappearing in the brush by an arroya, came back growling and with his tail between his legs. We were then two or three hundred yards from the thicket, and spurring our horses we left the trail and quickly crossed the arroya a hundred yards or more above the ambush, for such the fresh Indian tracks in the dry creek had shown it to be.

We reached our mines safely, and found that although almost constantly surrounded by Apaches, who had cut off all communication with Tubac, there had been no direct attack. Our entire Mexican force was well armed with breech-loading rifles, a fact which, while it kept off the Indians, rendered it necessary that our guard over our peons should never cease for an instant. Nor did we once during the long weeks that followed place ourselves in a position to be caught at a disadvantage. Under penalty of death no Mexican was allowed to pass certain limits, and in turn our party of four kept an unceasing guard, while our revolvers day and night were never out of our hands.

We had now to cut wood for charcoal and haul it in, stick by stick, not having enough animals to draw the six-horse wagons. This and burning the charcoal kept us nearly three weeks before we could begin to smelt. Our furnaces stood in the open air about one hundred yards from the main house, and on a tongue of high-land at the junction of two ravines. The brilliant light illuminating every object near the furnace exposed the workmen every night, and all night, to the aim of the Apache. In order

to obtain timely notice of the approach of the Indians, we picketed our watch-dogs at points within a hundred yards of the works; and these faithful guards, which the enemy never succeeded in killing, more than once saved us from a general massacre. The whole Mexican force slept on their arms around the furnace, taking turns at working, sleeping, and patrolling, receiving rations of diluted alcohol, sufficient to increase their courage without making them drunk.

More than one attempt was made by the Apaches to attack us, but being always discovered in time, and failing to surprise us, they contented themselves with firing into the force at the furnace from a distance. In the condition to which we all, and especially myself, had been brought by weeks of sleepless anxiety, nothing could sound more awful than the sudden discharge of a volley of rifles, accompanied by unearthly yells, that at times broke in upon the silence of the night. Before daylight one morning our chief smelter was shot while tending the furnace; it then became necessary for me to perform this duty myself, uninterruptedly, till I could teach the art to one of the Americans and a Mexican.

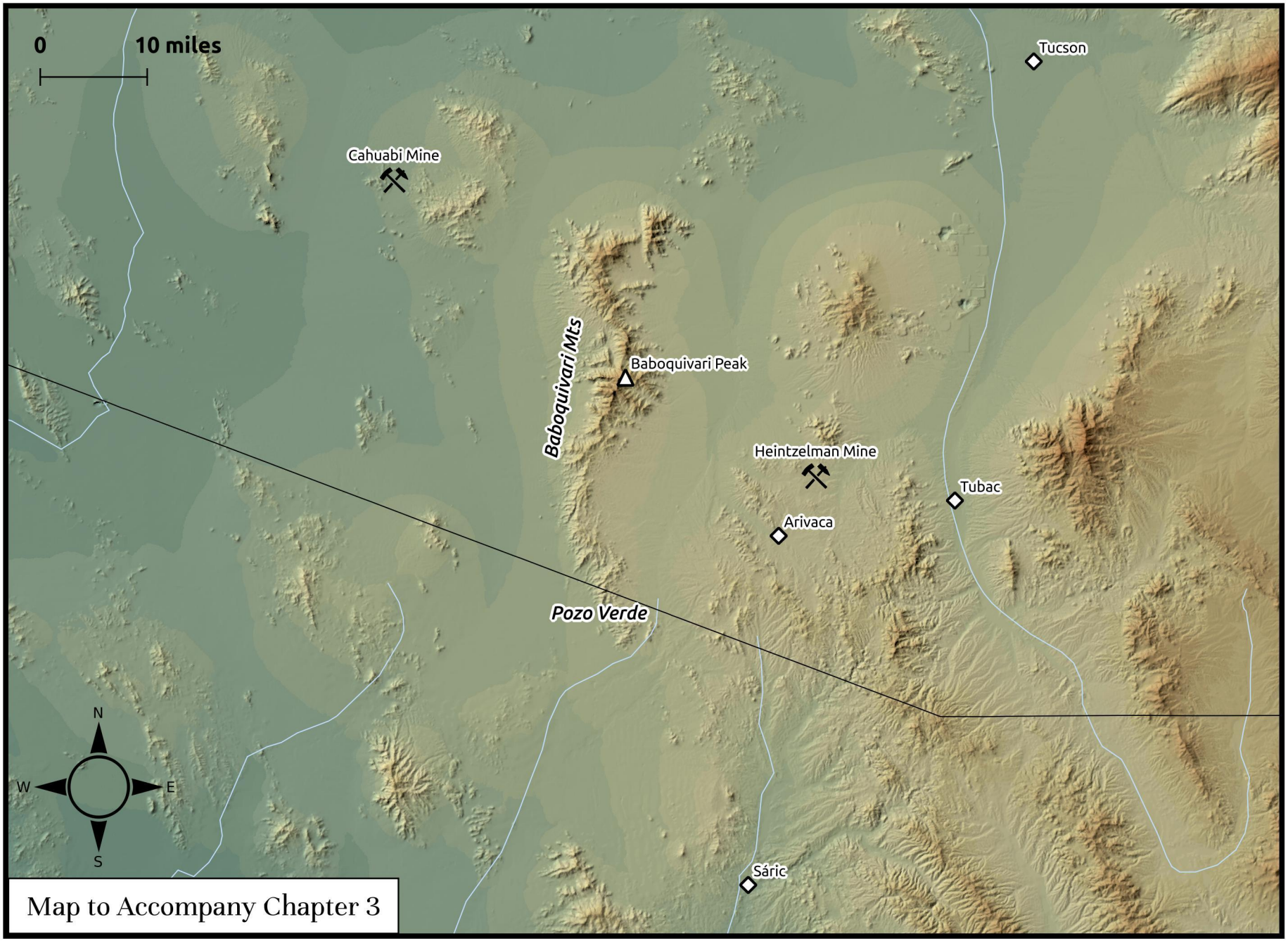
I foresaw that the greatest danger from the Mexicans was to be anticipated when the silver should be refined, and made arrangements to concentrate this work into the last two or three days, and leave the mine immediately after it was finished.

Dispatching a messenger, who succeeded in reaching Tubac, I engaged a number of wagons and men, and on their arrival everything that could be spared was loaded and sent off. The train was attacked and the mules stolen, but the owner and men escaped, and bringing fresh animals, succeeded in carrying the property into Tubac.

At last the result of six weeks' smelting lay before us in a pile of lead *planchas* containing the silver, and there only remained the separating of these metals to be gone through with. During this process, which I was obliged to conduct myself, and which lasted some fifty or sixty hours, I scarcely closed my eyes; and the three other Americans, revolver in hand, kept an unceasing guard over the Mexicans, whose manner showed plainly their thoughts. Before the silver was cool, we loaded it. We had the remaining property of the company, even to the wooden machine

for working the blast, in the returned wagons, and were on the way to Tubac, which we reached the same day, the 15th of June. Here, while the last wagon was being unloaded, a rifle was accidentally discharged, and the ball passing through my hair above the ear deafened me for the whole afternoon.

Thus ended my experience of eight months of mining operations in an Apache stronghold.



Map to Accompany Chapter 3

CHAPTER III.

THE FRONTIER AND THE DESERT.

THE social condition of Arizona from 1857 till 1862, and later, was one which could not fail to furnish much food for thought to even a superficial observer. When the country came into the possession of the United States, it was almost entirely depopulated, excepting the Indian tribes. After the conclusion of the Gadsden treaty it was entered by Colonel C. D. Poston with a party of explorers, and soon gained a reputation as a silver district from the high assays of ores discovered by that party. A considerable number of companies were soon formed to work mines in various parts of the country. In addition to the people sent out to work in different capacities at the mines, an American population, both floating and settled, was soon formed, mostly from the Southern States, and of men unaccompanied by families. Many of these were old frontiersmen, many more were refugees from the slackly-administered justice of Texas, New Mexico, and California; and when the vigilance committee cleared San Francisco of its worst social elements, a large number of the ruffians and gamblers expelled from that city made their home in Arizona. In addition to this there flowed into the country many thousands of Mexicans, who had formed the most degraded class in a land where social morality was, in every respect, at its lowest ebb.

There was hardly a pretense at a civil organization; law was unknown, and the nearest court was several hundred miles distant in New Mexico. Indeed, every man took the law into his own hands, and the life of a neighbor was valued in the inverse ratio of the impunity with which it could be taken. Thus public opinion became the only code of laws, and a citizen's popularity the measure of his safety. And popularity, in a society composed, to a great extent, of men guilty of murder and of every crime, was not likely to attach to the better class of citizens. The immediate result of the existing condition of public opinion was to blunt all ideas of right and wrong in the minds of new-

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'Colonel' Charles D. Poston was an important figure in the early history of Arizona Territory. He is referred to as 'The Father of Arizona' because of his efforts to establish Arizona as a territory separate from New Mexico. He served as the first territorial delegate to the House of Representatives (1864-1865). With Major Samuel P. Heintzelman, commanding officer of Fort Yuma, he founded the Sonora Exploring and Mining Company, which operated the Heintzelman Mine. He was given the epithet 'Colonel' for his duties as magistrate of Tubac, where the Sonora Exploring and Mining Company headquarters were located.

The San Francisco Committee of Vigilance was an extralegal civilian militia organization (i.e., a vigilante group) that was established (twice, first in 1851 and again in 1856, each time for a few months) to deal with rampant crime and corruption in the city during its explosive growth in the 1850s.

comers who, suddenly freed from the legal and social restraints of the East, soon learned to justify the taking of life by the most trifling pretexts, or even to destroy it for the sake of bravado. Murder was the order of the day among a total white and peon population of a few thousand souls; it was daily committed by Americans upon Americans, Mexicans, and Indians; by Mexicans upon Americans; and the hand of the Apache was, not without much reason, against both of the intruding races. The treachery of Mexican workmen went to such an extent that I believe there was hardly a mine in the country at which the manager, or in several instances all the white employés, had not been at sometime assassinated by their peons for the sake of plunder.

Such has been the condition of society in a part of our country within the past ten years: and it existed without the influence of actual war. It is true that a state of things more or less resembling that I have tried to sketch is incidental to the early history of many frontier districts, but it can hardly be said to have augured well for the future of a region in which it was claimed that an enduring civilization was springing up on the ruins of the Jesuit efforts, which were really far more successful.

That the region in question has a future that is both bright and near, there can, I think, be little doubt. Its prospects are dependent on the development of a mineral industry and the occupations subservient thereto. My own observations have convinced me that Arizona contains many rich deposits of silver, copper, and lead, and probably of gold also; but to work these profitably will require, in most if not in all instances, the overcoming of peculiar obstacles that now exist. Without at present touching upon the Indian question, the first essential to success is an improvement in the means of transportation from the mines to the coast, and between the different mining districts. During the short period when mining industry was trying to struggle into existence, supplies, including machinery, reached Tucson in central Arizona, by three different routes: from Indianola, Texas, 1087 miles; from Fort Yuma, on the Colorado river, over 250 miles; and from Guaymas, on the Gulf of California, nearly 400 miles distant.

A shorter and safer route than any of these will be necessary, and when furnished with a good wagon road, or ultimately with

a railway, the first essential to the development of industry of any kind will have been attained.

A reconnoissance, made for the Government by Major Fergusson, has shown that a good wagon-route exists between Tucson and Lobos Bay on the Gulf of California. The distance is 211 miles, or about 171 miles from Tubac, and by digging a limited number of wells the road would be made easily practicable at all seasons. The harbor of Libertad, on Lobos Bay, is considered by Major Fergusson to be a good one, and capable of admitting vessels of heavy draught.*

Owing to the scarcity of fuel and water, and to the character of the ores, it is probable that the mining companies will be obliged to have central reduction works, or to sell a part or all of their ores to such establishments, carried on independently. The owners of these works, by being able to mix and grade the various ores of different mines, would have it in their power to reduce them far more cheaply and with less loss of silver than could the individual mines. Low-grade ores, comparatively free from lead and zinc, and containing under $80 to $100 silver per ton, would probably be most cheaply worked by the Spanish-American amalgamation, or *patio* process; while the richer and poorer classes of silver ores, containing much copper, zinc, antimony, and arsenic, not being suitable for amalgamation, would work well in the furnace when mixed with the oxidized and unoxidized silver-lead ores of the country.

For fuel, the mines and works must, for some time to come, be dependent on the scanty mesquit and live-oak trees, as the nearest coal known is 200 to 300 miles distant. The scantiness of the growth of these trees, and their small size, will soon raise the cost of fuel. In view of this, experience might prove it to be desirable to carry the smelting only so far as the production of rich mats and argentiferous lead, and to ship both these products from the nearest port.

The troubles with the hostile tribes will disappear before the immigration that will be necessary to inaugurate successfully a mining industry and to furnish the mines with means of subsistence.

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* See "Letter of the Secretary of War communicating copy of report of Major D. Fergusson on the country, its resources, and the route between Tucson and Lobos Bay. Senate, 37th Congress, Ex. Doc. No. 1."

An important obstacle to be overcome is the uncertain character of Mexican labor. The Mexicans in Arizona, freed from the restraints of peonage, which is practically a system of slavery, and working for Americans, toward whom they feel only hatred, give full play to the treachery of their character. In this connection the proximity of the boundary line is a serious evil.

Mexican labor is good when properly superintended, or better yet when employed on the *partido* plan, in which gangs working in ore are interested to the extent of a specified share.

At the Santa Rita, workmen at the furnace received $1 per day of twelve hours; able-bodied miners $15 per month; and other Mexican laborers $12. In addition to these wages, each man had weekly a ration of sixteen pounds of flour. At the same time, American workmen received from $30 to $70 per month and board.

The system of paying the Mexicans the greater part of their wages in cotton and other goods, on which the company made a profit of from one hundred to three hundred per cent., reduced the cost of labor to a minimum. This last plan, however, being foreign to American ideas, would soon disappear before the competition that would arise under the influence of a vigorous mining industry.

It seems doubtful whether Americans* can be profitably used for hard work in the climate of Arizona, but I think it not improbable that voluntary Chinese labor would be found to be highly advantageous and superior to the Mexican.

Arizona, although very inferior as an agricultural region, is capable of supplying a large mining population with the first necessities of life. The plains and valleys of the higher portion have large tracts of good grazing-land; and many now barren valleys, when skilfully irrigated, as was anciently the valley of the Gila river, would yield abundant crops of corn, wheat, and other grains.

So long as the present lack of all humane relations exists between the various Apache tribes and the whites, safety for property and person will obtain only through an ever-increasing immigration and the gradual extermination of the warlike occupants of the soil.

* By Americans I refer throughout to the white natives of the United States.

One cannot but look upon the history of our intercourse with the original owners of our country as a sad commentary on the Protestant civilization of the past two centuries. In the history of no other conquest, heathen or Romish, do we find such a record of long-continued atrocity and treachery on the part of the conquerors, or of utter failures of badly-conceived and dishonestly-executed plans for the elevation of the conquered race. The example of duplicity set by the early religious colonists of New England, has been followed by an ever-growing disregard for the rights of the Indian; and for nearly two hundred and fifty years the outposts of our population have been the theatres of scenes for which no centralized government would dare assume the responsibility.

So long as our population continued small, and its advance slow, the extensive reserves set aside for Indians seemed to offer a lasting home for the rapidly-vanishing race; and later, when our fast-increasing and wide-spreading numbers sought only agricultural lands, it seemed that, as a hunting people, they might find abundant area for subsistence on the table-lands of the Rocky Mountains. But this, the last hope of the remaining tribes, is being destroyed, since the continued discoveries of the precious metals have drawn our pioneers to every nook, no matter how barren, of that immense region.

While our forefathers made at least a show of paying the natives for the land taken from them, there is now not even a pretence of such compensation, at least not in the southern Rocky Mountains. The Indian country is subdivided between the various tribes, whose range is limited by more or less defined boundaries. As by far the greater number are almost solely hunters, the area necessary to their support is out of all proportion to that required for the subsistence of an equal number of agriculturists. With the influx of a mining population, the Indians, unable to encroach upon the territory of neighboring tribes, are gradually driven to the most barren parts of the mountains, and with the disappearance of game are reduced to the verge of starvation. Whether they oppose bravely at first the inroads of the whites, or submit peacefully to every outrage until forced by famine to seek the means of life among the herds of the intruder, the result is the same. Sometimes hunted from place to place in open war; some-

times their warriors enticed away under peaceful promises by one party, while a confederate band descends on the native settlements, massacring women and children, old and young; they are always fading away before the hand of violence. No treaty or flag of truce is too sacred to be disregarded, no weapons too cruel or cowardly to be used or recommended by Americans. Read the following quotation from a late work:

"There is only one way to wage war against the Apaches. A steady, persistent campaign must be made, following them to their haunts—hunting them to the 'fastnesses of the mountains.' They must be surrounded, starved into coming in, surprised or inveigled—by white flags, or any other method, human or divine—and then put to death. If these ideas shock any weak-minded philanthropist, I can only say that I pity without respecting his mistaken sympathy. A man might as well have sympathy for a rattlesnake or a tiger." *

I have quoted the above passage, because it expresses the sentiment of the larger part of those directly interested in the extermination of the Indians, who are also exercising a constant pressure on the Government, and making healthy and just legislation in the matter impracticable.

If it is said that the Indians are treacherous and cruel, scalping and torturing their prisoners, it may be answered that there is no treachery and no cruelty left unemployed by the whites. Poisoning with strychnine, the wilful dissemination of small-pox, and the possession of bridles, braided from the hair of scalped victims and decorated with teeth knocked from the jaws of living women—these are heroic facts among many of our frontiersmen.

In the territory under the control of the Hudson's Bay Company—the interests of that organization requiring a proper treatment of the Indians—very little trouble has ever been experienced during a long intercourse with the natives; and the same may, I believe, be said of the relations between the Mormons and the surrounding tribes. Throughout Spanish America the Jesuits succeeded to a high degree in their endeavor to elevate the condition of the conquered race, and the limit to their success was always determined by the cupidity of the home government, and of the mining population.

* Sylvester Mowry in "Arizona and Sonora."

Sylvester Mowry was another important figure in the history of Arizona Territory. He was an advocate for creating a separate Arizona Territory, although with the start of the Civil War he supported aligning the territory (comprising the southern portions of modern Arizona and New Mexico) with the Confederacy. He operated a mine in the Patagonia Mountains, south of the Santa Rita Mountains on the Mexican border. The historical record suggests he was of questionable character.

Without difficulty these zealous apostles founded missions, and traversed parts of the Rocky Mountains which are now accessible to only a strong military force. Leaving our own continent, we find in Russia, China, and many other lands, a successfully pursued policy, resulting in a greater or less elevation of conquered races. The nomad Tarter tribes, brought under Russian rule, in Russia and Siberia, have been transformed, even where not christianized, into a different mode of life, forming a highly respected class, following the same occupations equally successfully with the Russians, among whom they live.

I can explain the different condition of our relations with the Indians, only by supposing that, in the presence of long-continued dishonesty in our Indian agencies, public opinion has shaped itself into conformity with the interests of the frontiersman, who is restrained by no higher law than his own grossly selfish aim. Perhaps the question has already passed beyond the control of the Government; certainly, at present, it is being worked out under more general laws—those which control animal life; it has become a struggle for existence, a contest in which the nobler moral faculties have no part.

There is, perhaps, no doubt that the aboriginal race will soon disappear from the United States; nor can it be denied, if the mere contact with us, without the use of violence, causes them to melt away, that their disappearance is for the advantage of the world at large, since the fact of a natural decrease would prove them to be lacking in ability to do their share in the world's work. But it is the duty of Government to see that their disappearance shall take place through the natural decrease in the number of births. This result can be effected only by causing the tribes to remove to reservations, where they may be protected by Government in their rights, and made to respect the rights of others. The policy at present followed toward the hostile tribes is not only unjust, but it is an unpardonable waste of men and money. Costly treaties are made with difficulty, only to be immediately broken, as well by the Indians as by the settlers, and by the very agents appointed to execute the obligations of the Government. Indian agents, appointed to represent the Government, and distribute presents among the Indians, carry on with them a profitable but shameful trade, bartering not only arms and spirits, but the very presents

of Government, against horses and mules, which they know well the Apache must first steal from Mexicans and Americans. It was out of these thefts, made to fulfil the dishonest contracts entered into with Government officials, that the majority of the Indian troubles arose in Arizona.

If war between the hostile tribes and the whites is unavoidable, let its prosecution be transferred from the irresponsible settlers to the military, and waged with the definite object of concentrating the Indians upon liberal reserves, and there accomplishing all that can be effected toward their elevation by the efforts of Government, and of the missionary enterprise of any religion.

When we deposited the movable property of our company at Tubac, we did so under the supposition that that village would be a point at which a large part of the white and Mexican population would concentrate for mutual defence, until the fresh troops, whose coming was rumored, should arrive. As soon as the contents of the wagons were stored away, the silver assayed, and our debts paid, I determined to make a journey for recreation into the Papagoria—the land of the friendly Papago tribe. In company with Colonel C. D. Poston and Mr. J. Washburn, I reached the Cerro Colorado or Heintzelman mine, then being worked by the first-named gentleman. Here we took a Mexican guide and laid in our provisions, consisting of pinole—powdered parched-corn—sugar and coffee.

Early the next morning we left the mine, and, following the Indian trail westward for several miles, came onto the great Baboquiveri plain. This broad stretch of wild grass-land being one of the main thoroughfares of the Apaches, we were obliged to keep a good look-out all day. But notwithstanding the great heat, and the danger from Indians, the combined effect of the grand scenery and the prospect of reaching a country where comparative safety would allow a few nights of unguarded sleep, filled me with new life, and I gave myself up again to the fascinating influence of nature in the Rocky Mountains. Twenty miles or more to the west of us, rose the sharp and lofty peak of the Baboquiveri, its eagle-head outline and every feature sharply defined, while the range out of which it towers up stretched away in long

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'Papago' is the English name for the Tohono O'odham Indians. The region here called 'Papagoria' is now part of the Tohono O'odham Indian Reservation in Southwestern Arizona.

wings of glistening, barren rock, till lost in the northern and southern horizons.

As we entered the valley from our position on its eastern border, the broad plain lay before us. Descending in a gentle slope to the centre, and thence rising gradually to the same height along the base of the opposite mountain range, it was a wide expanse of grassy steppe, and forests of mesquit and cacti. Detecting us from afar, a drove of wild horses trotted off over the grassy surface, and we watched their graceful course as with streaming tails and flowing manes they disappeared in the distance.

The only other signs of life that break the monotony of these journeys, are given by the herds of bounding antelopes, or by the red or gray wolf as he trots slowly away from the traveller, stopping dog-like ever and anon to turn and watch the intruder. The tracks of the great grizzly bear, the marks of the huge paw of the no less ferocious panther, and the sudden and frequent sound of the rattlesnake, warn the traveller of other dangers than the Apache.

Taking a diagonal course over the plain, we reached the foot-hills of the Baboquiveri range at the approach to Aliza pass. It was late at night before we had wound through the rocky defile, and by the light of the full moon ascended to the spring near the top. After watering the horses from our hats, and drinking a supper of pinole in water ourselves, we took turns at watching and sleeping.

Early the next morning we reached the summit of the pass. The Baboquiveri range forms the boundary between the Papagoes and Apaches, two tribes differing widely in appearance, character, and habits, and between whom there has ever been hostility.

The Papagoes guard carefully the approaches to their country, and these passes have been the scenes of many desperate battles. But the desert character of the Papagoria is its best defence, since, in view of the great scarcity of water over an immense area, it would be almost certain death to a party of Apaches to penetrate far into it. At the summit of the pass stands a large pile of stones, literally bristling with arrows, both old and new. Whether this was a landmark or battle monument I did not learn.

A ride of twenty miles over a gravelly plain, which reflected

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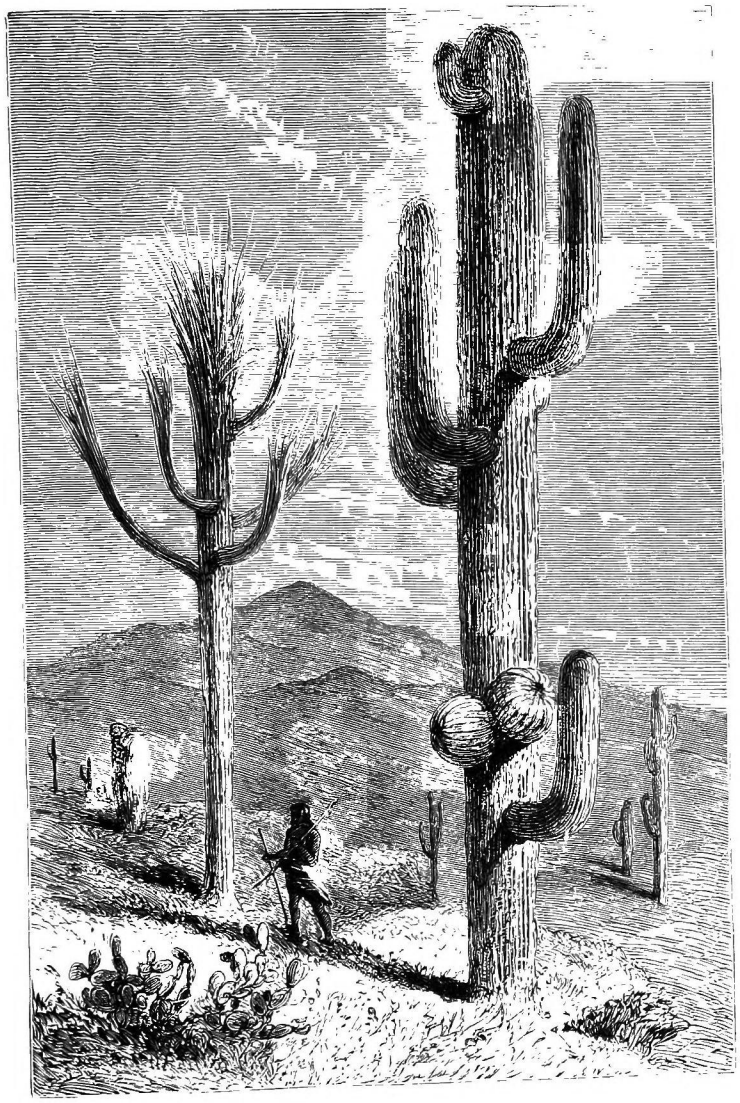
Grizzly bears were hunted to extinction in Arizona by the early 20th Century.
Jaguars ('panther' is a colloquial term) are now extremely rare in southernmost Arizona.

the intense heat of the sun, brought us to Cahuabi, a Papago village on the skirt of the desert. Here two silver mines, the Cahuabi and Tajo, had been worked for a short time some years before and temporarily abandoned. Both of these veins, one containing free gold, as well as silver ore, give good promise; indeed, I consider the Cahuabi district to be one of the richest for silver in Arizona. The fact that it lies in the desert, with barely enough water to cook with, will be a serious hindrance to its development.

Most of the Papago villages on the desert are several miles from any water, and one of the chief occupations of the women is the obtaining of this necessary of life, and bringing it home. I say obtaining, for getting water is there often a labor of patience, skill, and danger. In many places it is to be had only by digging. A spot is chosen where the rock dips under a deposit of sand, and an opening like a quarry is sunk in the latter, exposing the rocky surface. The little water that trickles slowly, drop by drop, along the plane of contact between sand and stone, is collected with the greatest care and patience, till the labor, sometimes of hours, is rewarded by one or two gallons of water in the earthen vessel, which the woman then bears on her head, perhaps six or nine miles, to her home. In very dry seasons, water can be had only by extensive digging of this kind. A friend once reached one of these wells at a time when, after a succession of dry seasons, the Indians were dying from thirst. He found a large number of natives digging recklessly, far below the surface, and following down the line of contact between sand and rock, in the vain hope of finding a few drops of water. In their despair, they undermined the high face of the sand, and it fell, burying for ever a number of the unfortunate creatures.

From Cahuabi we made an excursion into the desert to visit a mine being opened by some Mexicans. At the outset, our way lay over a gravelly plain covered with small scrubby acacias, and the green, leafless palo-verde, over which towered countless columns of the saguarra (Cereus giganteus). This giant cactus, one of the wonders of the vegetable world, impresses a peculiar character on the scenery in which it occurs. Often a simple shaft, nearly as large at the top as at the base, it rises thirty and even sixty feet above the ground. Its green surface is fluted like a



THE SAGUARA.

Grecian column, and armed from base to summit with small clusters of long thorns, while a coronet of beautiful, highly-colored flowers encircles the base of the hemispherical top. In the season, these flowers are replaced by a sweetish fruit, as large as a hen's egg, which forms an important source of food among the Papagoes. This fruit is made into an agreeable syrup, which seems to be as much prized among these Indians as the sugar and syrup of the maple are among the northeastern tribes.

Beneath the soft-green exterior, the body of the shaft is a skeleton of poles, finger-thick, as long as the plant, and irregularly connected together into the form of fasces. These poles, taken from dead trunks, furnish, with the exception of the bow and arrow, the only means of reaching the fruit.

So strongly do these cacti resemble Grecian columns, that one is almost tempted to look for fallen Corinthian capitals and ruined temples. It is a curious coincidence, that the natural object which is best suited to furnish the prototypes of the fluted Grecian column and the Roman fasces, should belong to an order of plants not represented on the eastern continent, and to a species restricted to a small area on the immense deserts of the New World.

Reaching the new mine, we found the Mexicans at work in an irregular opening, from which about a wagon-load of good-looking argentiferous copper ore had been taken. This they would have to transport nearly one hundred miles before they could smelt it. In Mexico, where all the men are more or less miners, it is common, especially since the decline of the great mining industry, for a number to club together for the purpose of working some old or new mine on shares. The present laxity in the enforcement of the mining laws, the general absence of security to property, and an inherent love of gambling, are all favorable to such enterprises. While many new discoveries of value are made in this manner, the fact that they are not recorded, and the ruinous system followed by these people in robbing the pillars of old mines, render the operations of the *gambucinos* a serious evil to the country.

Returning to Cahuabi we began our homeward journey, intending to reach Arivacca by a trail crossing the mountains south of the Baboquiveri peak. We encamped for the night near the

western foot-hills of the range, and from our elevated position the vast plains, stretching away toward the Pacific, were spread out before us. To this grand landscape the brilliant light of the full moon lent its enchanting power, rendering more weird the unfamiliar plant forms, silvering the distant ridges of barren granite and the surface of the boundless desert. Not a sound, nor even a breath of air, broke the silence of the night; and as I yielded to the influence of the scene, I seemed to be a wanderer in dreamland.

Soon there came the doleful bark of the red wolf, growing louder and nearer as these animals approached and hovered about the camp.

In the morning I found that the rawhide thongs had been gnawed off from my saddle, although it had served me for a pillow all night.

Before night we reached Fresnal, a Papago village. Near this we encamped by a spring of good water, surrounded by fine ash and mesquit trees, and lying in a ravine descending from the Baboquiveri peak. Our intention was to leave Fresnal on the following afternoon, but while preparing to break camp an accident occurred by which all our plans were changed. While we were eating our pinole, a sand-storm was seen whirling rapidly toward us from the desert, and we all hastened to wrap our fire-arms in the blankets, to protect them from the penetrating dust. In doing this Mr. Washburn let his revolver fall. It instantly went off, and discharged a ball into the inner side of his right thigh. An examination showed that the ball had not come out, and it seemed almost certain that it had entered the abdomen, and that death must soon follow. A hasty consultation resulted in sending a Papago on Mr. Washburn's horse to Tucson, about 80 miles distant, for a doctor, while Colonel Poston, with the guide, started for Arivacca, about 40 miles off, by the trail over the mountain, to bring an ambulance, and I remained to nurse our wounded companion. During the afternoon we found that the ball had glanced around the outside of the pelvis, and following the spine had lodged itself between the muscle and bone, near the shoulder blades. Being entirely ignorant of everything relating to surgery, I did not venture to cut it out, but decided to wait for the doctor's arrival, keeping the wound constantly washed in the

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This is why, when carrying a revolver, you only load five rounds and leave the hammer on the empty sixth chamber.

meantime. After an absence of less than two days and a half, the Papago returned, having nearly killed the fine horse he rode, and bringing a letter, in which the doctor regretted the impossibility of undertaking a journey in the existing condition of the country.

Five days passed without bringing any news from Colonel Poston, and concluding that another friend had swelled the long list of victims to the Apaches, I made preparations to await the time when I should either help my companion into his saddle or dig his grave. Recovery seemed almost impossible, with the thermometer ranging from 116 to 126 degrees in the shade, and when night brought only a parching desert-wind.

Day after day passed by without bringing any change in our prospects, or in the condition of the wounded man. The Papagoes of the neighboring village, from whom I bought milk and boiled wheat, were at first friendly: their frequent visits to our camp relieved the tedious monotony of the long days, and I occupied my time in learning their language. But gradually these visits became rarer, and finally ceased altogether. The old chief raised the price of milk from one string of beads per quart, to two strings, and the smallness of my supply of this currency rendering it necessary to raise their value in the same proportion, our relations became daily less and less friendly. Our isolated position thus grew every day more unpleasant, surrounded as we were by Indians who were nominally friendly, but who had murdered more than one helpless traveller.

Nearly two weeks had passed since the accident, when a Mexican arrived from Colonel Poston bringing provisions, and a letter, from which we learned that after leaving us they had lost their way at night on the Baboquiveri plain, and after wandering about for three days without food or water, the guide became insane and strayed away toward the south. Poston, finding water the next day, had regained sufficient strength to retrace his steps toward the Baboquiveri peak, till coming into the trail he reached Arivacca, delirious and half dead, on the fifth day. When his reason returned he learned that the Apaches had made a descent on the place a few days before, killing several men and driving off all the animals. He advised us to hire a party of Papagoes to bring Washburn in on a litter. I immediately made the pro-

position to the chief, beginning by offering a horse, and ending with the offer of horses and arms by the dozen. It was useless. The old man was tempted; but most of the warriors being away for the summer, he would not venture to expose the village to a raid from the Apaches by sending the young men with us.

The Mexican left the welcome provisions and returned to Arivacca, and again the same tedious routine of watching and waiting was resumed. Nearly all my time during the day, and much of the night, was occupied in keeping water on Washburn's wound. By this means, together with the dryness of the climate, it was kept free from gangrene, and the condition of my patient was apparently improving.

One day the unexpected but welcome sound of a creaking wheel was followed by the appearance of a wagon drawn by oxen, and escorted by eleven Mexicans. It was a party who had gone from Sonora, over the desert, to open a mine, and were now returning with a load of ore. The scarcity of water on the desert had caused them to take the route along the foot of the mountains, and, fortunately for us, the first wagon that had ever passed this way came in time to give us relief. A bargain was immediately made—the Mexicans, who were on foot, agreeing to take Washburn to Saric, in Sonora, for five dollars. Making as comfortable a bed for the wounded man as was possible, over the rough load of ore, we began this new stage of our journey.

The oxen made slow progress, rarely over ten or twelve miles a day, and now and then losing a day altogether; still it was a great relief to be again on horseback. At Poso-Verde we reached the border of the Papagoria. Here the Indians had taken advantage of the existence of a spring, and abundant grass, and we found a well-stocked ranch of horses and cattle. The spring was a small pool, in which stood, during the heat of the day, all the cattle that could find room, and in it the Indians bathed every morning. Already from a distance we smelt the water, and when we reached it, it seemed more like a barn-yard pool than a reservoir of drinkable water. Still we were forced to use it there, and to lay in a supply.

Leaving Poso-Verde we turned from the mountains unto a broad plain, bearing scarcely any other vegetation than scattered tufts of grass. As we were now exposed to the Apaches, we

were obliged to keep a constant look-out. The Mexicans had no amunition, and ours was useless to them. In two or three days it was suddenly discovered that we were out of provisions and tobacco. A Mexican was instantly sent ahead on our extra horse to get supplies at the nearest village in Sonora, and it was hoped he might meet us on the second or third day, at least in time to prevent any deaths from starvation.

But when the third day passed without his return, it was evident that hunger was telling fearfully on us. The Mexicans became, all of them, more or less deranged, as much from want of tobacco as from hunger; we could make but little progress, as our companions wandered away from our course, and my time was divided between guiding the oxen and keeping the men near the wagon. I was entirely ignorant of the route, and, not being able to rely on the random talk of the crazy guides, could only keep a southerly course, and trust to accident for finding water.

The Mexicans tore open my saddle-bags in search of tobacco, an action I had neither the strength nor the heart to resist. I began to feel that my own reason was leaving me, and that only a speedy relief could save us from death.

Fortunately, before night overtook us, we reached a low range of hills, and my heart beat fast as I saw a number of *petalhya* cacti growing from the rocks. It was the season for their fruit, and enough of this was found to supply a scanty meal all around.

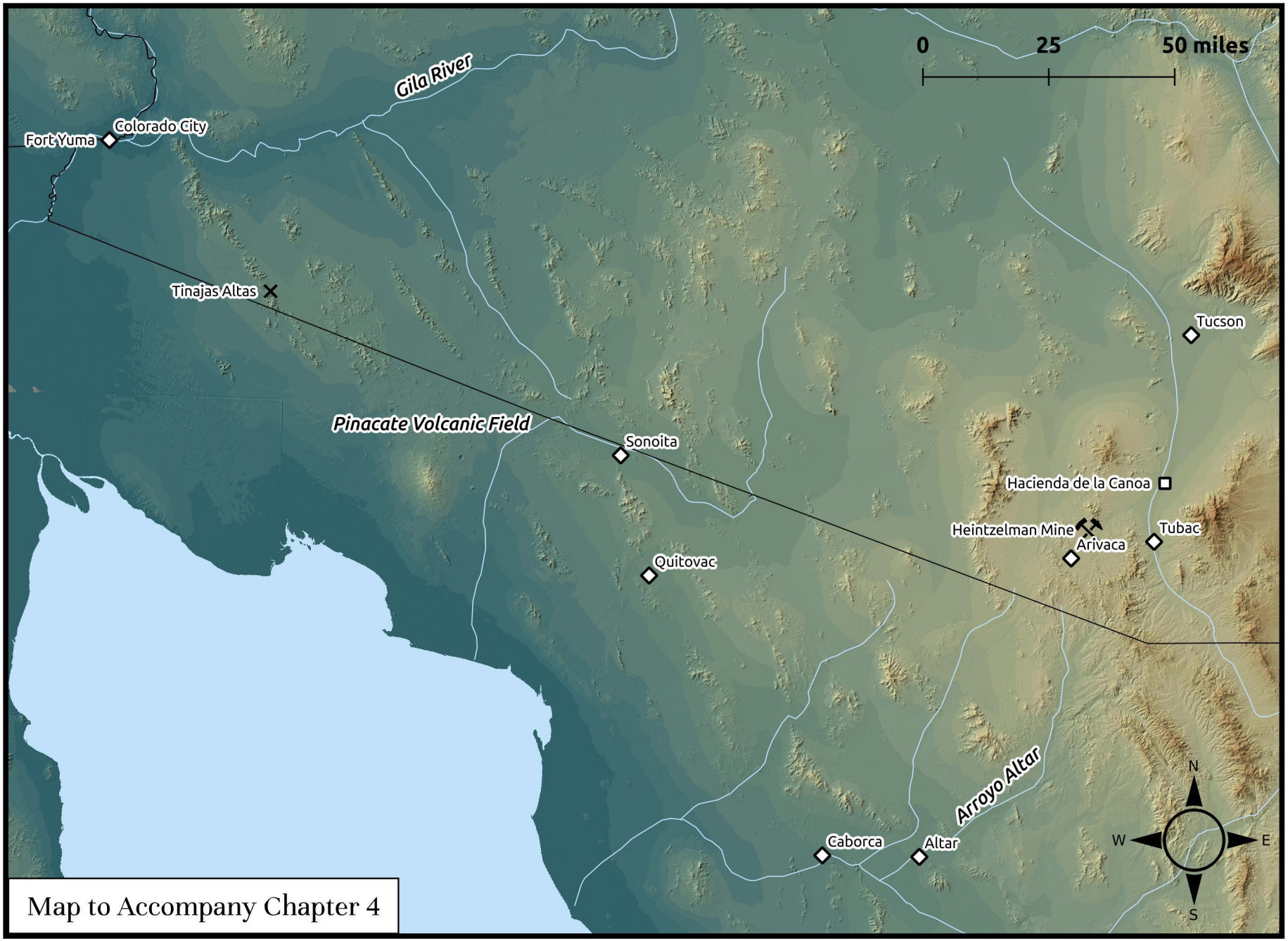
The next day, fearing to go on, we remained quiet, and I stood guard with drawn pistol, till the following morning, to prevent the starving men from killing one of the oxen, knowing well that it must inevitably cause the death of Washburn. Toward noon of the fifth day a horseman was seen coming from the north, who proved to be our Mexican bringing provisions. He had passed us in the night, and had gone a long day's journey beyond us, before cutting our trail. Our deliverer was torn from his horse by the men, in their impatience to get at the supplies, but, before taking a mouthful of food, we all quickly rolled cigarettes, and each inhaled one long draught of delicious smoke, and then fell to eating. Fortunately, the man had been wise enough to hide most of his load, to prevent the effects of over-eating in our condition. By the next morning we were nearly recovered from

the effects of starvation, as was shown by the returned sanity and straightened forms of all of us. Thus ended one of the most awful episodes of my journey.

Two or three days more brought us to Saric, where the sympathies of the entire female population were immediately enlisted in behalf of Mr. Washburn, and we were soon furnished with as comfortable quarters as the poor frontier village could supply. This was not much, however, consisting of a room, in which we spread our blankets on some fresh cornstalks.

The Apaches had made a raid on the place that day, and the village was in a state of excitement. An old Spaniard was found whom we both knew, and who, having some knowledge of surgery, proceeded to cut out the ball.

This was done successfully, the lead coming out in two pieces. By careful treatment, and constant nursing on the part of the kind-hearted Mexican women, Washburn in less than two weeks was on the road to certain recovery, and I prepared to leave him, to return to Arizona. When on the point of starting I was seized with chills and fever, and for a week was the patient, in turn, of every lady in the village. But kind nursing, aided by emetics and warm water by the pailful, restored me, and, leaving a country where the men are mostly cut-throats, and the women angels, I rode toward Arizona.



Map to Accompany Chapter 4

CHAPTER IV.

CLOSING SCENES AND ESCAPE.

At Arivacca I found Colonel Poston impatiently awaiting the arrival of the agent of Colonel Colt, to whom he had transferred the lease of the Heintzelman mine. Being both of us anxious to leave the country, we determined on a journey together through the principal mining districts, to the city of Mexico, and thence to Acapulco, or Vera Cruz. Before beginning this we visited Tubac, where we found the population considerably increased by Americans, who had been driven in by the Apaches, from the ranches of the Santa Cruz valley.

In three days we were ready to return to the Heintzelman mine, and the morning of the fourth day was fixed for our final departure from Tubac. But a circumstance occurred in the evening which interfered with our plans. Just before dark a Mexican herdsman galloped into the *plaza*, and soon threw the whole community into a state of intense excitement. He had gone that morning with William Rhodes, an American ranchero, to Rhodes's farm, to bring in some horses which had been left on the abandoned place. The farm lay about eighteen miles from Tubac, on the road to Tucson, and to reach it they passed first through the Reventon, a fortified ranch ten miles distant, and then through the Canoa, a stockade inn, fourteen miles from Tubac. At the inn they found the two Americans who had charge of the place, cooking dinner; and telling them they would return in an hour to dine, they rode on. Having found the horses, they returned, and, before riding up to the house, secured the loose animals in the corral, and then turned toward the inn. Their attention was immediately drawn to a shirt, drenched in blood, hanging on the gate, and, approaching this, a scene of destruction confronted them. The Apaches had evidently been at work during the short hour that had passed. Just as they were on the point of dismounting, they discovered a large party

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The 'Colonel Colt' mentioned here is Samuel Colt, of firearms fame. He invested in the Sonora Exploring and Mining Company, which operated the Heintzelman Mine.

of Indians, lying low on their horses, among the bushes a few hundred yards off the road. At the same instant that they put spurs to their horses, to escape toward the Reventon, the Apaches broke cover, and reached the road about one hundred yards behind the fugitives.

There were not less than a hundred mounted warriors, and a large number on foot. About a mile from the inn, Rhodes's horse seemed to be giving out, and he struck off from the road toward the mountains, followed by all the mounted Indians. The Mexican had escaped to the Reventon, and thence to Tubac, but he said that Rhodes must have been killed soon after they parted company.

It being too late to accomplish anything by going out that night, we determined to look up the bodies and bury them the following day. Early the next morning I rode out with Colonel Poston and three others, to visit the Canoa. To our great surprise the first man we met, as we rode into the Reventon, was Rhodes, with his arm in a sling. He corroborated the story of the Mexican, and told us the history of his own remarkable escape. Finding his horse failing, and having an arrow through his left arm, he left the road, hoping to reach a thicket he remembered having seen. He had about two hundred yards advantage over the nearest pursuers, and as he passed the thicket he threw himself from the horse, which ran on while he entered the bush. The thicket was very dense, with a narrow entrance leading to a small *charco* or dry mud-hole in the centre. Lying down in this he spread his revolver cartridges and caps before him, broke off and drew out the arrow, and feeling the loss of blood buried his wounded elbow in the earth. All this was the work of a minute, and before he had finished it the Indians had formed a cordon around his hiding-place and found the entrance. The steady aim of the old frontiersman brought from his horse the first Apache who charged into the opening. Each succeeding brave met the same fate as he tried the entrance, till six shots had been fired from Rhodes's revolver, and then the Indians, believing the weapon empty, charged bodily with a loud yell. But the cool ranger had loaded after each shot, and a seventh ball brought down the foremost of the attacking party, and the eighth the one behind him. During all this time the Indians fired volley after volley

of balls and arrows into the thicket, in the hope of killing their hidden opponent. After the twelfth shot there came another whoop, another charge, and one more warrior fell. Then the Indians, who knew him well by name, and from many former fights, called out: "Don Guiglelmo! Don Guiglelmo!—Come and join us; you're a brave man, and we'll make you a chief." "Oh, you devils, you! I know what you'll do with me if you get me," he answered. After this Rhodes heard a loud shout: "Sopori! Sopori!"—the name of the ranch of a neighboring mine—and the whole attacking party galloped away.

After a few minutes, finding the Indians all gone, Rhodes left the thicket and found his way to the Reventon. Thus happened one of the most remarkable defences and escapes, and one that could have been carried out only by a cool courage, such as few men even with a long frontier experience can command.

Leaving the Reventon we rode toward the Canoa. As we approached it the tracks of a large drove of horses and cattle and of many Indians filled the road. Soon we came in sight of the inn, and two dogs came running from it toward us. With low, incessant whining they repeatedly came up to us, and then turned toward the inn, as if beseeching our attention to something there. When we entered the gate a scene of destruction indeed met us. The sides of the house were broken in and the court was filled with broken tables and doors, while fragments of crockery and iron-ware lay mixed in heaps with grain and the contents of mattrasses. Through the open door of a small house, on one side of the court, we saw a body, which proved to be the remains of young Tarbox, who coming from Maine a short time before had been put in charge of the inn. Like many of the settlers, the first Apaches he had seen were his murderers. Under a tree, beyond a fence that divided the court, we found the bodies of the other American and a Papago Indian, who, probably driven in by the Apaches, had joined in the desperate struggle that had evidently taken place. These bodies were pierced by hundreds of lance wounds, and were already in a terrible condition.

Our small party of five took turns in keeping watch and digging the graves. Burying the Papago in one grave, and the two Americans in the other, we wrote on a board—"Tarbox;" and under, this: "White man, unknown, killed by Apaches." How

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Sopori and Reventon were other ranches in the Santa Cruz Valley, between Tubac and Tucson.

often does that word "unknown" mask the history of some long-mourned wanderer from the circle at home.

We had just finished the burial, when a party of Americans, escorting two wagons, rode in sight. They were on their way to Fort Buchanan, where they hoped to discover the *caches* in which commissary stores had been hidden on the abandonment of the conntry. Happening to ask them whether Mr. Richmond Jones, superintendent of the Sopori Company's property, was still in Tucson, I was told that he had left that town for the Sopori early on the previous day.

Knowing that he had not yet reached home, we instantly suspected that he was killed. As the party had met with no signs of Indians till near the Canoa, we began a search for his body in the neighborhood, and before long a call from one of our number brought us to the spot where it lay. A bullet entering the breast, two large lances piercing the body from side to side, and a pitchfork driven as far as the very forking of the prongs into the back, told the manner of his death. Wrapping the body in a blanket, we laid it in one of the wagons and turned toward Tubac. Finding the spot where Rhodes had left the road in his flight from the Indians, Poston and myself followed the tracks till we reached the scene of his desperate fight. The place was exactly as Rhodes had described it, and the *charco* was covered with the branches cut loose by the Apache bullets, while the ground at the entrance was still soaked with blood.

At Tubac a grave was dug, and in it we buried Richmond Jones, of Providence, R. I. Like Grosvenor, a true friend of the Indians, he fell by them a victim to vengeance, for the treachery of the white man. The cry of Sopori, raised by the Indians when they left Rhodes, was now explained; they knew that in Jones they had killed the superintendent of that ranch, and they were impatient to reach the place and drive off its large drove of horses and cattle before the arrival of any force large enough to resist them. This they effected by killing the herdsmen.

The next morning, bidding good-bye to Tubac, Poston and myself returned to the Heintzelman mine. I was to pass a week here, for the purpose of examining and reporting on the property; but hearing that a wagon-load of watermelons had arrived at Arivacca, and having lived on only jerked beef and beans for nearly

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Tubac was abandoned shortly thereafter because of the relentless Apache depredations.

a year, I determined to go on with Poston and pass a day at the reduction works. It was arranged that two of the Americans should come to Arivacca the next day, to carry the mail through to Tucson. They came; but, the letters not being ready, their departure was postponed till the following morning.

About an hour and a half after these two men had left Arivacca, they galloped back, showing in their faces that something awful had happened.

"What is the matter?" asked Poston.

"There has been an accident at the mine, sir."

"Nothing serious, I hope?"

"Well! yes, sir; it's very serious."

"Is any one injured—is my brother hurt?"

"Yes, sir, they're all hurt; and I am afraid your brother wont recover."

My friend dared to put no more questions; the men told me the whole story in two words—"all murdered."

Mounting my horse, which had already been saddled to carry me to the mine, I returned quickly with the two men. We found the bodies of Mr. John Poston and the two German employés, while the absence of the Mexicans showed plainly who were the murderers. I heard the history of the affair afterward in Sonora. A party of seven Mexicans had come from Sonora for the purpose of inciting the peons, at Arivacca and the mine, to kill the Americans and rob the two places. They reached Arivacca the same day that Poston and myself arrived, and finding the white force there too strong, had gone on to the mine. Here they found no difficulty in gaining over the entire Mexican force, including a favorite servant of Mr. Poston. This boy, acting as a spy, gave notice to the Mexicans when the white men were taking their siesta. Without giving their victims a chance to resist, they murdered them in cold blood, robbed the place, and left for Sonora. Laying the bodies in a wagon just arrived from Arivacca, we returned to that place. I found that during my absence the peons had attempted the same thing at the reduction works, but being detected in time by the negro cook, they were put down. That evening we had another burial, the saddest of all, for we committed to the earth of that accursed country the remains not only of a friend, but of the brother of one of our party.

I will add here that the accident which so nearly proved fatal to Washburn on the desert, in all probability saved his life, since by delaying his return to the Heintzelman mine, where he made his home, it saved him from the general assassination.

After this occurrence we both abandoned our proposed journey, and determined to leave the country by the nearest open route. The events of the past week, added to all that had gone before, began to tell on my nerves, and I felt unequal to the task of making a dangerous summer journey of over one thousand miles through Mexico.

The arrival of a Spaniard whom we knew well, decided our route. He brought the news that a vessel was to arrive at Lobos Bay, on the Gulf of California, to take in a cargo of copper ore. So we determined to leave with him for Caborca, on our way to Lobos Bay. Indeed, the only route open to us lay through Sonora, as it was out of the question for two men to think of taking the ordinary routes through Arizona.

The day after the funeral we put our baggage into the returning wagons, and following these, on horseback, left Arivacca. Our own party consisted of Poston, myself, and the colored cook. Crossing the Baboquiveri plain we passed around the southern end of the Baboquiveri range. Here I entered again upon the great steppe, which, stretching northward through the Papagoria, and southwestward to the Altar river, had so lately been the scene of our eventful journey. On the skirt of this plain we encamped for the night.

The effect of the grand scenery and wonderfully clear atmosphere of this strange land, is to intensify the feelings of pain or pleasure which at the time sway the traveller's mind. Thus, while under ordinary circumstances, the surroundings of this our first encampment would have been engraved on the memory with all the shading and coloring of a sublime and beautiful night-scene, the events of the past week formed a background on which the picture of that night remains impressed with all the weird gloom of the darkest conceptions of Breughel or Doré. The bright moon-lighted heavens were suddenly overcast, in the north-east, by the first thunder-cloud I had seen in the territory. Above us the sky was clear, but over the mountains we had left all was dark and gloomy. As the thunder rolled in peal after peal, and

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Breughel was a Dutch Renaissance artist.
Doré was a 19th Century French artist known most for wood engraving and painting.

lightning broke in great columns, its sudden light impressing on the eye the weird rock-forms and frowning cliffs of the Arizona mountains, it seemed a fitting end to the scenes we had left behind, and as though that region were realizing its name, and were in reality the "Gate of Hell."

Our route lay for two or three days, as far as the Altar river, over hard, gravelly plains, generally bearing grass and scattered mesquit trees and cacti. The Altar river is a mere rivulet at nearly all seasons, but along its course are many places which might become flourishing ranches, were not all attempts at industry rendered hopeless by the raids of the Apache. Following the river we reached Altar, a village built of adobes, and containing a population of about 1,900 souls, including the ranches of the inmediate neighborhood.

The productions of this part of Sonora are chiefly maize, wheat, barley, beans, and some sugar and tobacco.* Watermelons are raised in large numbers. A solitary date-palm, standing near Altar, is evidence of the attempts of the early missionaries to introduce fruits which seemed suited to the climate.

On the fourth day of our journey we reached Caborca, a village containing about 800 inhabitants, chiefly agriculturists and miners. It was in the fine old mission-church at this place that the filibustering party under Crabbe met their fate.

Here we were welcomed by an acquaintance, Don Marino Molino, who offered us the hospitality of his house. Much to our disappointment, we learned that the coming of the expected vessel to Lobos Bay had been postponed for several months, and it became necessary to choose another way out of the country. Our choice of routes was limited to two: the one leading to Guaymas, about 200 miles distant, and the other to Fort Yuma, nearly as far to the northwest, on the Colorado river.

While we were in Caborca, some of the former peons of the

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* "The prices of wheat and barley are about the same at all the pueblos, viz, wheat at harvest time $1.50 per fanega, (150 lbs.); wheat at seed time $3,00 per fanega, (150 lbs); barley at harvest time $1,00 (120 lbs.) : at seed time $2,50-$3,00 ; beans cost from $3.00 to $8,00 (average $5,00) per fanega ; corn the same as wheat, but the fanega weight 200 lbs. Beef cattle and all kinds of stock are scarce. I estimate that about 4,000 head of cattle belong to Caborca, and perhaps 5,000 to 6,000 are on the Galera rancho ; six miles from there they sell steers for $5,00 to 12,00. Animals are generally fattened for slaughter in the towns, where they sell for about $20.00 ; heavy fat oxen from $40,00 to 60,00 ; tallow brings a high price.

"At Pitiquito, about six and one-half miles from Caborca, there is raised annually : of wheat about 8,000 fanegas ; of corn say 2,000 fanegas. Cotton thrives well."—*Report of Major D. Fergusson, to the Secretary of War.*

Pumpelly here alludes to the Crabb Massacre, in which a group of American colonists were captured and executed by Mexican rebels led by Sonoran General Pesqueira in April 1857. Pesqueira had originally invited the Americans to settle in Northern Sonora in order to gain allies in fighting against his various enemies, but he turned on the Americans upon their arrival. The term 'filibuster' refers to someone who undertakes an unauthorized paramilitary expedition into a foreign country.

Heintzelman mine, who had been of the assassinating party, were seen walking in conscious security through the streets. We heard that they not only boasted openly of their part in the murder, but that they had formed a party of twelve desperadoes to follow and waylay Poston and myself, for the sake of the large quantity of silver we were supposed to have in our baggage. Our friends warned us of the danger, and advised us to increase our force before continuing the journey. At the same time a report was brought in by a Mexican coming from California, that Fort Yuma was to have been already abandoned, and that owing to two successive rainless seasons, many of the usual watering-places on the desert route to the Colorado were dry. There was one distance, he said, of one hundred and twenty miles, without water, and on this some of the party to which he belonged had died from thirst.

We decided, however, on this route, as, besides leading directly to California, it exposed us mainly to the dangers of the desert. One thing caused us much uneasiness: this was the question as to how we should cross the Colorado river, supposing the Fort were really abandoned. That river is deep, and broad, and the current rapid; and the abandonment of the fort would, considering the hostile character of the Yuma Indians, necessarily cause the abandonment of the ferry also.

There was in Caborca an American, named Williams, who had been found some weeks before dying from hunger and thirst, on the shore at Lobos Bay. Brought into Caborca, and kindly treated by an old lady of that place, he had already recovered, and was seeking an opportunity to leave the country. According to Williams's story, he had formed one of a party of three who had built a boat on the Colorado river, intending to coast along the Gulf of California to Cedros island, on a "prospecting" expedition. Arriving at Lobos Bay, he said, they had been wrecked, but he was unable to account for the subsequent movements of his companions. We believed his story, and liking the appearance of the man, engaged him to go with us to California, giving him as compensation an outfit consisting of a horse, saddle, rifle, and revolver. As soon as we had engaged a Mexican, with several pack-mules, we were ready for our journey. Our party now consisted of four well-armed men, not counting the Mexican muleteer.

Fort Yuma was abandoned by regular troops with the start of the Civil War. However, the post was garrisoned by Union California Volunteer troops through the war.

Several friends escorted us as far as our first encampment, which we reached in the night, and left us the following morning, but not without repeatedly warning us to keep an unceasing watch for the party that was sure to follow us.

The first inhabited place we passed was the Coyote gold-placer, near which are the ancient Sales and Tajitos gold and silver mines, and, in the neighboring Vazura mountains, the Coyote copper mine. The ore of the latter is a rich, brilliant black sulphuret. The Sales and Tajitos were worked with profit till the insurrection of the Indians.

The next settlement in which we encamped was Quitovac, a place which had some celebrity for its gold placers before the discovery of that metal in California. It had been our intention to take the route to the Colorado river, leading through the Sonoita gold district, in preference to that passing through San Domingo. These routes, diverging at a point a few miles beyond Quitovac, continue parallel to each other, but separated by mountains, till their reunion on the Gila river. When asked at Quitovac which route we proposed taking, we had given that by Sonoita as our choice. But as soon as we took the road in the morning it became evident that a party of horsemen had passed through Quitovac during the night, stopping for only a short time. The tracks showed them to be twelve in number, and when on reaching the fork of the trails we found that, after evident hesitation, they had taken the Sonoita route, we changed our plan and turned into that leading to San Domingo, which place we reached in a few hours. In this settlement, containing two or three houses, the last habitations before reaching the Gila river, we found Don Remigo Rivera, a revolutionary Sonoranian general. Don Remigo had withdrawn with his small force to the United States boundary, where he was awaiting a favorable opportunity for action. Leaving his men at Sonoita, he had come to pass a few days at San Domingo. As this gentleman had frequently been a guest at the Santa Rita, and at Colonel Poston's house, we received from him a cordial reception, and dismounted to breakfast on pinole and watermelons. While thus engaged, a courier rode up at full speed, and was closeted for a few minutes with our host. This man, Don Remigo informed us, brought news of the arrival, in the neighborhood of Sonoita, of twelve men, whose names he gave. It

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Santo Domingo was ~10 miles northwest of Sonoita, along the U.S.-Mexico border.

Between 1857 and 1861, Mexico was embroiled in the Reform War, a civil war instigated by the major political and social changes established with their Constitution of 1857.

was supposed by his friends that they had come to assassinate the general.

"That is not likely to be their object," said Don Renrigo, "since, though they are cut-throats, they belong to my party, and have served under me. It is more probable," he continued, "that they are following you, as I have heard of a plot to waylay you."

Our suspicions of the morning were thus confirmed, and the necessity of being prepared for an attack became more apparent.

San Domingo lies on the boundary, and the trail leaving the ranch keeps for a few miles south of the line, and then enters the United States territory. To this point Don Remigo accompanied us, to show us the last watering-place before entering upon the desert. As we returned from this spring to the road, two men were seen, who, having passed us unnoticed, were travelling north. They proved to be two Americans, on their way to Fort Yuma, and they readily joined us. Our party now numbered six well-armed men, and we felt ourselves able to cope with fifty Mexicans. The size of our force now rendered it possible to keep a watch without much fatigue to any member of the party; but our greatest danger lay in the exposure of our animals, and consequently of ourselves, to death from thirst. Soon we would have to enter upon the broad waterless region, and the bones of animals already bordering our trail warned us of the sufferings of past years.

One night, as we were skirting the desert along the base of a barren sierra, Williams and myself had fallen behind the caravan, when my companion, from over-use of our Spanish brandy, began to talk freely to himself. We were just approaching a bold, high spur of the sierra, while immediately before us the trail wound between immense fragments of rock fallen from the mountains above. Williams stopped his horse, and looking at the rocks, said, half aloud:

"Here's where the d—d greasers * overtook us, and we whipped them."

As the man had said that he had never been over the road before, I thought it at first only the talk of a drunken man.

"I thought you had never been this way before, Williams," I said to him.

"Maybe I haven't; maybe I dreamt it; but when you get by

* A name applied to Mexicans by frontiersmen.

that spur you'll see two tall rocks, like columns, on the top of the sierra; them's the 'two sisters.'"

We soon passed the point of the spur, when, looking toward the top of the mountain, I saw two tall rocks, like columns, rising from the crest. My interest in this man was now excited, indeed I had already had a suspicion that he was not what we had taken him to be. Determined to learn more, I passed him my flask; we rode on together, talking about Sonora, though not very coherently on Williams's part. After riding a few miles we entered a scanty forest of mesquit and palo-verde trees, and I observed that my companion had become attentive to the surroundings. In answer to my questions he replied:

"I am looking for an opening on the left side of the trail. There's a square opening with a large mesquit at each corner, and a long branch goes from one corner across to the other; under the branch there's a mound, I guess."

He rode ahead, and soon turned out of the trail.

Following him, I entered by a narrow path and found myself with him in a square opening; there, indeed, was a mesquit at each corner, a long branch crossing the space diagonally, and under the branch a mound. The clear moon-light shone into the spot and cast our shadows over the mound, as if to hide a mystery.

"He's rotten now, I reckon;" my companion muttered. "I told him I'd spit more than once on his grave, and by G—d I've done it."

"What was his name, Williams?" I asked, passing the flask again.

"Charley Johnson."

"What did you kill the poor devil for, in this out-of-the-way place?"

"An old grudge, about a Mexican woman, when we were with Fremont. I told him I'd spit on his grave, and I've done it; ha! ha! ha! I've done it. We had a split here about a scarf—and I got the scarf, that's all."

"Who kept the priest's robes?" I asked, looking him full in the face.

At these words, Williams started and made a motion toward his pistol; but seeing that I had the advantage, inasmuch as my hand rested on my revolver, he simply exclaimed:

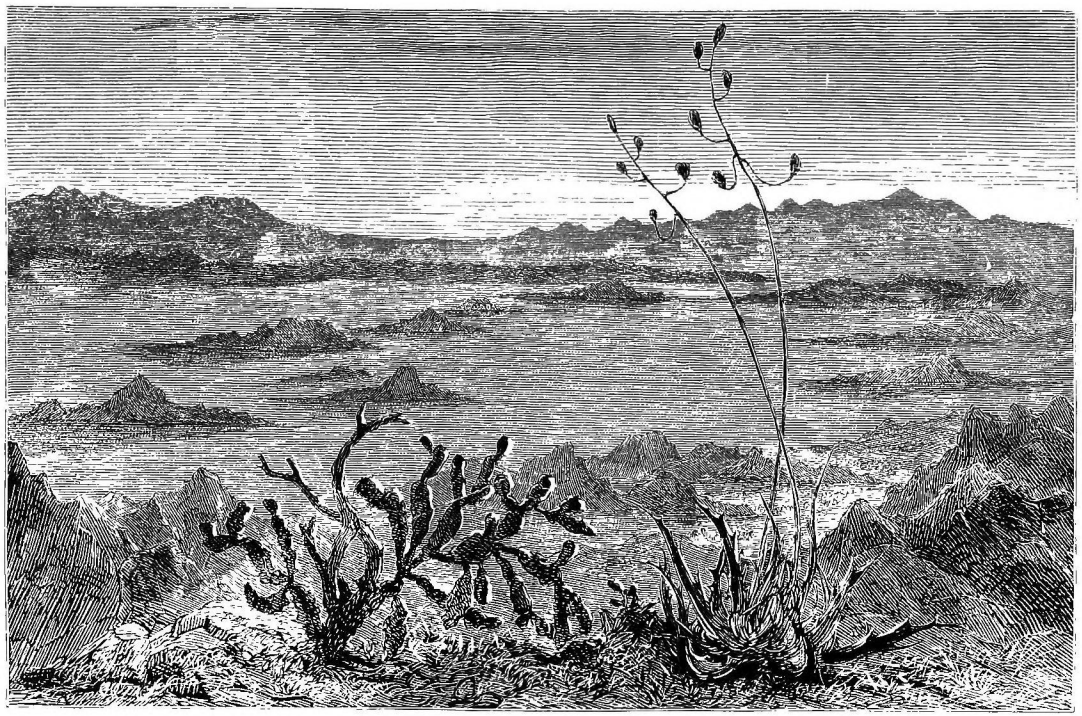
"What the devil do *you* know about the priest's robes?"

"Only that you were one of Bell's band," I answered, quietly.

The suspicions I had formed as soon as Williams had betrayed a knowledge of the route, were fully confirmed; our quiet-looking companion had been one of the band of cut-throats which, under the notorious Bell, had been the terror of California, soon after the discovery of gold. This party had gone to Sonora, about eight years before the time of our journey, under the pretext of wishing to buy horses. Stopping at a celebrated gold placer near Caborca, they were hospitably entertained at the neighboring mission by the old priest and his sister, who were living alone. In return for this kind reception they had hung the priest, outraged the lady, and robbed the rich church of several thousand dollars in gold. The inhabitants of Caborca had told me of this occurrence, still fresh in their minds, and of the bravado of the party in riding through Caborca, using the priestly robes as saddle blankets. Before a sufficiently strong party could be raised to follow them, they had escaped to the desert, and when finally overtaken, were found too strong for their pursuers, who were driven back.

My experience on the border with men of the class to which Williams belonged, had shown me that to manage them, or, when it becomes necessary, to associate with them, one must assume, to a certain extent, their tone; this I had done with my companion, and by this means and the aid of the brandy-flask I obtained his confidence. He acknowledged that he had been one of Bell's men, and had been on the expedition into Sonora. When he was recently brought into Caborca nearly dead, he was taken care of by the sister of the priest whom they had hung, and Williams lived in constant fear that the lady would recognize him. Not only had he escaped recognition, but he told me, as an excellent joke, that the Senora had given him a letter to her two daughters, who were living in California.

He was, at the time of our journey, a refugee from California, having murdered a man in San Francisco. The history he gave me of his life, while with Bell's band, was a combination of awful crimes and ludicrous incidents, that would swell a volume. I never knew but one ruffian who more surely deserved hanging than this companion, whom we had taken with us to increase our



DAYBREAK ON THE DESERT.

safety. That other man was one who had been a blacksmith at the Santa Rita mine, and had been discharged for trying to stab Mr. Grosvenor. Soon after this he killed a man at Tubac, and, as the sympathies of the inhabitants were with the victim, Rodgers found it necessary to leave the country to avoid lynch law. Before going, he took one of the employés of the Santa Rita to his trunk, and showing him a string of eighteen pairs of human ears, told him he had sworn to increase the number to twenty-five. From Arizona he went to Chihuahua, near which city he killed his travelling companion; and some months later we heard that, having brutally murdered a family of four persons at El Paso, for the sake of a few dollars, he had been caught and hung by his heels over a slow fire. Thus his own ears made the twenty-fifth pair.

One cannot come much in contact with such men without feeling how little human nature has been affected by the march of society, and how subject to conventional influences are even the passions of man. The workings of conscience come to seem a refinement of civilization, but so artificial that they are absent in the absence of the restraints of the civilization in which they originate. An eminent clergyman has said that colonization is essentially barbarous: certainly, from the time when the pioneer first enters a new country, until, with increasing population, the growing interests of individuals and society necessitate the bridling of crime, the standard of right and wrong is far below that even of many peoples whom we class as savages. And, other things being equal, it is by the lesser or greater rapidity of this transformation process, that we may measure the superiority or inferiority of the parent civilization.

In a few days we approached the worst part of the desert; the watering-places became more separated and the supply smaller. Our route lay over broad gravelly plains, bearing only cacti, with here and there the leafless palo-verde tree, and the never-failing greasewood bush. In the distance, on either side, arise high granite mountains, to which the eye turns in vain for relief; they are barren and dazzling masses of rock. Night brought only parching winds, while during the day we sought in vain for shelter from the fierce sun-rays. The thermometer ranged by day between 118 and 126 degrees in the shade, rising to 160 degrees

in the sun. On these vast deserts the sluggish rattlesnake meets the traveller at every turn; the most powerful inhabitant, his sway is undisputed by the scorpions and the lizards, on which he feeds. The routes over these wastes are marked by countless skeletons of cattle, horses, and sheep, and the traveller passes thousands of the carcasses of these animals wholly preserved in the intensely dry air. Many of them dead, perhaps, for years, had been placed upright on their feet by previous travellers. As we wound, in places, through groups of these mummies, they seemed sentinels guarding the valley of death.

With feelings of much anxiety we encamped on the border of the *pleyas*, a depressed region, once probably a large lake, now a surface of dried mud, crossed by ridges of shifting sand. From that camp on, there lay before us a continuous ride of nearly thirty hours, before we could hope to find the nearest water on the Gila river, and it was not probable that all our animals could bear up under the fatigue and thirst.

But during the night the sky was overcast with black clouds, and there came the first rain that had fallen on this desert for more than two years. Never was storm more welcome; both we and our animals enjoyed heartily its drenching torrent. Before day-break the sky had cleared, and with the rising sun began the heat of another day. A broad sheet of water, only a few inches deep, covered the *pleya* for miles before us, and banished from our minds all fear of suffering. Across the centre of this great plain there stretches, from north to south, a mass of lava about one mile wide, and extending southward as far as the eye can reach. On this lava-wall there stand two parallel rows of extinct volcanic cones, 100 to 300 feet high, with craters. In crossing this remarkable remnant of recent volcanic action, I could look down the long and perfect vista of regular cones, till they faded away in the perspective and behind the curvature of the earth.

On the second day after the rain, the water had almost everywhere disappeared, having been evaporated by the heat and dryness of the air. Leaving the plain, we sought water in a ravine of the neighboring mountain. Finding here cavities worn in the face of the granite cliff, we each entered one and made our noon camp for once in the shade. Here I found a

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Here, they are likely traveling through the edge of the Pinacate Volcanic Field, the northernmost portion of which extends northwards from Sonora into Southwestern Arizona.

large pair of horns of the Rocky Mountain sheep, or "big-horn:" they weighed at least thirty pounds.

Our next camp was made at the Tinaje alta or high tanks. Here, at the head of a long ravine in the mountains, there is a series of five or six large holes, one above the other, worked in the granite bed of the gorge. After a rain these are all filled, but as the season advances, the lower ones become empty, and the traveller is obliged to climb to the higher tanks and bail water into the one below him, and from this into the next, and so on till there is enough in the lowest to quench the thirst of his animals. The higher tanks are accessible only at great risk to life. After a succession of dry seasons it sometimes happens that travellers arrive here already dying from thirst. Finding no water in the lower holes, they climb in vain to the higher ones, where, perhaps, losing strength with the death of hope, they fall from the narrow ledge, and the tanks, in which they seek for life, become their graves.

A ride of one day from the Tinaje alta brought us to the Gila river, at one of the stations of the abandoned overland stage route. Here a piece cut from a newspaper and fastened to the door of the house, first informed us of the defeat of the North at Bull Run. Indeed, almost the last news we had received before this from the East, was of the firing on Fort Sumter.

Our route now lay along the Gila river. Stopping in the afternoon, we sought relief from the heat by taking a bath in the stream; but the water which we had found pleasant in the morning was now unpleasantly warm, and on trying it with the thermometer, the mercury sank from 117 degrees in the air, only to 100 degrees in the water, which was thus two degrees above blood-heat. During the night we were travelling by the bright light of the full moon, when, looking south, I saw a black wall rising like a mountain of darkness, and rapidly hiding the sky as it moved steadily toward us. In a few minutes we were in intense obscurity, and in the heart of a sand-storm which rendered all progress impossible. Dismounting, we held the terrified animals by the lassos, and sat down with our backs to the wind. We had repeatedly to rise to prevent being buried altogether by the deluge of sand. When the storm was over the moon had set, obliging us to unload our half-buried animals and camp for the night.

Butterfield Overland Mail stations were abandoned with the withdrawal of the Army at the start of the Civil War. The specific stage stop mentioned here may have been Swiveler's Station, located near Gila City, ~20 miles east of Fort Yuma. The First Battle of Bull Run occurred in July 1861.

The next morning we reached Colorado city (opposite Fort Yuma), on the Colorado river. This place, consisting of one house, had a curious origin, which was told me by a friend, who was also the founder. Soon after the purchase of Arizona, my friend had organized a party and explored the new region. Wishing to raise capital in California to work a valuable mine, he was returning thither with his party, when they reached the Colorado river at this point. The ferry belonged to a German, whose fare for the party would have amounted to about $25. Having no money, they encamped near the ferry to hold a council over this unexpected turn of affairs, when my friend, with the ready wit of an explorer, hit upon the expedient of paying the ferriage in city lots. Setting the engineer of the party, and under him the whole force, at work with the instruments, amid a great display of signal-staffs, they soon had the city laid out in squares and streets, and represented in due form on an elaborate map, not forgetting water lots, and a steam ferry. Attracted by the unusual proceeding, the owner of the ferry crossed the river, and began to interrogate the busy surveyors, by whom he was referred to my friend. On learning from that gentleman that a city was being founded so near to his own land, the German became interested, and, as the great future of the place was unfolded in glowing terms, and the necessity of a steam ferry for the increasing trade dwelt upon, he became enthusiastic and began negotiations for several lots. The result was the sale of a small part of the embryo city, and the transportation of the whole party over in part payment for one lot. I must do my friend the justice to say that he afterward did all that could be done to forward the growth of the place.

Making our quarters at the ferry-house, our party separated, the colored cook going, with the muleteer, back to his Mexican wife, in Sonora. The two Americans who had joined us on the road lived near the fort; with their departure, our number was reduced to three.

During our stay of several days, we saw a good deal of the Yuma Indians, a tribe which, till within a few years, was celebrated for the beauty of its women. But this quality was already causing the destruction of the tribe, and while we were there we saw the funeral ceremonies of the last of the beautiful

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Colorado City was founded by Charles D. Poston on the Arizona side of the Colorado River. After being destroyed by a flood in 1862, the town was effectively merged into nearby Arizona City, and the settlement on the Arizona side of the river subsequently became known as Yuma.

The ferry across the Colorado River was called Jaeger's Ferry, after its German operator. Jaeger City stood on the California side of the Colorado River until it was destroyed in the 1862 flood.

Fort Yuma itself was located on the California side of the river. The Fort Yuma Quartermaster Depot was located on the Arizona side of the river.

women. Unlike most of the Indians, the Yumas burn their dead. In this instance, a pile of wood about eight feet long, and four or five feet wide, left hollow in the centre to receive the body, formed the funeral pile. The body, wrapt in the clothing of the deceased, and borne by relatives, was placed in the pile, which was then lighted. As the flames increased, friends approached the spot, with low and mournful wailing, to feed the fire with some article of dress, or ornament. One after another, the young Yuma women were disappearing, victims to disease brought by the troops, and which, it seems, the military physicians did little to prevent the spread of.

Both the men and women of this tribe are large and well built. The women wear a short skirt, made of strings of bark, fastened to a girdle around the waist, and reaching to above the knees. The most important weapon of the warriors is a short club, an unusual implement among our aborigines.

The Colorado river is about five hundred yards broad at Fort Yuma, and its yellowish waters represent the drainage of the greater part of Arizona, New Mexico, Utah, and Colorado. Navigable for steamboats to the mouth of the Virgin river, five hundred miles from the Gulf of California, it presents the means of reaching Utah with the least land travel.

Above this point it comes in from the east, and southeast, and in this part of its course, the Grand Cañon is one of the greatest of natural wonders, if, indeed, it be not the most remarkable. For a distance of nearly five hundred miles the river flows through a gorge, whose vertical, and, in places, overhanging walls, rise on either side to a height of from four to six thousand feet. Indeed, the explorations of Ives and Newberry have shown that throughout this immense area, which forms a table-land between the Rocky Mountains and the Sierra Nevada, the whole river system of the Colorado and its tributaries is sunk thousands of feet perpendicularly into the crust of the earth.

Through this almost inaccessible region are scattered the remnants of the Pueblo Indians, a disappearing race which has left, over an immense area, the ruins of large dwellings, and of extensive canals for irrigation.

After resting a few days we made preparations to continue our journey to California. An emigrant who, with his wife, had

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The 'table-land between the Rocky Mountains and the Sierra Nevada' is the Colorado Plateau.

been forced by the secessionists to leave Texas, agreed to carry our baggage in his wagon. He left the ferry in the morning, while we were to start in the evening, and overtake him at the first encampment on the desert. During the day there arrived a man whom I knew to be a notorious cut-throat. This fellow, a tall one-eyed villain, who was known as "one-eyed Jack," I knew must have just come from Arizona. He wore trowsers of which one leg was white, and the other brown. It was soon evident that the new arrival and Williams were old cronies, and they passed most of the day together. Before we left in the evening I asked Williams the name of his friend, and received for answer that he was called Jack, that he had just come from California, and was going to Arizona.

We left the ferry about dusk, but before we had gone half a mile Williams had disappeared. Our route lay for several miles along the west side of the Colorado, and Poston and myself rode to the point where the road leaves the river to turn westward. Here we descended the bank to water the horses, and dismounting, waited nearly an hour for our missing companion. We finally started without him, and leaving the river, began to cross the wooded bottom-land toward the desert. We had ridden a short distance when a bush, freshly fallen across the road, seemed to be a warning that the route was impracticable further on. Poston remained by the signal, while I looked in vain for another way through the underbrush; it was evident that the bush had been cut since the passage of the wagon that morning. I had started through the open wood to strike the road some distance beyond, when my attention was drawn, by my horse's uneasiness, to a mule tied in the woods, and to a man stretched out on the ground. At a glance I saw from a distance, by the different-colored legs of the man's trousers, that "one-eyed Jack" was near me. Without stopping, I went to the road, and following this back, came upon Williams's horse fastened to a tree, and near him his owner apparently asleep. On being asked what the bush meant, he replied that he had put it there that we might not pass him while he slept. That was the last place where we would find grass, and as there would be no water for thirty miles, he said we must camp there for the night. In the mean time Poston rode up. The truth had already entered my mind. But dismounting, while

I pretended to unbuckle my saddle-girth, I asked Williams where he had been.

"I went back to the river for my canteen."

This I knew was a lie, for I had seen him drink from it as we left the ferry.

"When is your one-eyed friend going to Arizona?" I asked.

"He's gone already; I saw him across the river;" was the cool reply.

The villain's coolness was admirable, but the whole plot was clear. Jumping into the saddle, and making a sign to Poston, I declared my intention of riding on to the emigrant's camp. As Williams swore he would go no further that night, we left him and soon entered the desert. We both decided that Williams and his friend had conspired to kill us while we slept, and then to murder the emigrant and his wife, and get possession of the silver which had attracted the Mexican bandits.*

Leaving the woods, which form a narrow strip along the Colorado, we passed a belt of shifting sand several miles broad, which is gradually approaching the river and burying the trees.

We reached the camp of the emigrant at about 3 A. M., and entering the abandoned station of the Overland Stage Company, slept soundly till roused by the noise of the preparation for breakfast. After we had eaten and begun to saddle our animals, Williams rode up, and entering the house rather roughly told the lady-like wife of the emigrant to make him a breakfast. Some sharp words passed between us, and Williams left the house with an oath and a muttered threat. Poston beckoned to me, and we went out. Our companion stood a few yards from the door, with his back toward us, and did not notice our approach. Poston drawing his revolver, called Williams by name. Taken by surprise he whirled around, and catching sight of the revolver, made a motion toward his own; but he was too old a hand to draw a pistol against one already pointed at him.

"Williams," continued Poston, in the coolest tone, "Pumpelly and I have concluded that it wouldn't be safe for you to go to California. The last man you killed has not been dead long

* Colonel Poston on a subsequent journey learned in Sonora, that the twelve Mexicans had followed us for more than 200 miles, but finding us always on the watch, had not dared attack us.

enough, and they have a way there of hanging men like you. We don't wish to shoot you, for we hav'nt the time to bury you. You may keep the outfit, but you had better go back and join your friend, one-eyed Jack, down there by the river; you and he can't kill us, and you can't get our silver."

With a hearty laugh, Williams held out his hand.

"Give us your hand; you're sharper by a d—d sight than I thought you was; you'll do for the border; good morning!" and jumping into the saddle, he put spurs to his horse and rode away by the road he had come. We watched him as he rode off, and could not help laughing at the fellow's cool impudence. After riding a short distance he turned, and, waving his hat, shouted: "Good-bye; bully for you!—you'll do for the border." I have given this scene in full, as an illustration of the character of a representative of one type of the frontiersman.

The desert we were now crossing begins in Lower California, and stretches several hundred miles northward, between the Sierra Nevada and the Colorado river. Portions of this great area are depressed below the level of the sea. Where we crossed it, partly in Lower California and partly in California, it was the worst of deserts. Its centre, along our route, was a broad plain of fine, sandy clay, strewn with fresh-water shells, and appeared to be the dry bed of a fresh-water lake, which was once, probably, supplied from the Colorado river. Away from this plain the surface is covered with ridges of shifting sand. The wells dug by the Overland Stage Company yield a sulphurous and alkaline water, so fetid as to be undrinkable, excepting when the traveller is driven to it by fear of death from thirst. Indeed, it often induces a disease which sometimes proves fatal. On no desert have I seen the mirage so beautiful as here.

Riding one night, we saw before us a camp fire, by which we found an American and one Mexican. As meeting a traveller on a desert is always an event, we dismounted and smoked while the others were eating. The American was on his way to Sonora, and the Mexican was his guide. We told him how dangerous it then was to travel through the intermediate country, and in Sonora.

"Well, I guess I'm pretty much proof against bullets and lances, stranger; just feel here;" he replied, putting his hand on his breast.

We felt his shirt, and found it double, and lined all round with discs of something heavy.

"Those are all twenty-dollar gold pieces; I'm pretty much proof," he continued. It was useless to give further warning to a man who published the fact that he was encased in gold, so we left him to his fate. We heard afterward, all the way to Los Angeles, that he had everywhere boasted of his golden armor; and, later still, that he had been murdered by his guide. This man was the associate of Palmer, with whom he had caused an excitement in San Francisco about a rich silver mine they pretended to have discovered in a volcano in the Sierra Nevada. After raising a large sum of money they decamped. The body of Palmer was discovered some time afterward in Tulare county.

Finally, in the beginning of September, we approached the western edge of the Colorado desert. Travelling by moonlight, we entered the valley of Carisso creek, by which the desert sends an arm, like an estuary, into the mountains which limit it. As though fearful that the traveller may forget the horrors of a thousand miles of journey over its awful wastes, the desert, as a last farewell, unfolds in this dismal recess a scene never to be forgotten.

Already from the plain, through the clear moonlight, we saw the lofty range bordering the waste, a barren wilderness of dark rock rising high above the gray terraces of sand that fringe its base, great towering domes and lowering cliffs rent to the bottom, and clasping deep abysses of darkness.

As all night long we forced our way through the deep sand of the gorge, winding among countless skeletons, glittering in the moonlight, scorched by hot blasts ever rushing up from the deserts behind us, we seemed wandering through the valley of the shadow of death, and flying from the very gates of hell.

The next day we reached the summit of the Sierra Nevada, and felt the breeze from the ocean. In an instant both horse and rider raised their drooping heads, and, quickened as with a new life, dropped the accumulated languor of months of travel.

As we descended the western declivity of the mountains, our eyes greeted everywhere by herds of cattle and magnificent live-oaks, it seemed impossible that the cheerful land we were traversing should be a frame to the scene of desolation we had left the day before.

They approached Los Angeles from the southeast, through the Anza Borrega region (south of the San Jacinto Mountains).

Our route to Los Angeles lay through the stock ranches which form, with the vineyards, the principal industrial feature of the southern part of California. Almost the entire population consisted of emigrants from the Southern States, and so strong was the hatred felt toward the North, since the news of the rebel victories, that a Northerner was in as great danger as he would have been in the worst parts of the South.

With our arrival at Los Angeles ended our journey on horseback; a coasting steamer took us to San Francisco. Colonel Poston returned by the Isthmus to the Eastern States, and I passed two or three months in visiting some of the principal mining districts, preparatory to beginning the practice of my profession.

California is well known, of late, to all the inhabitants of the Eastern States, and is perhaps more widely known throughout the world, through books of travel and family letters, in every language, than any other part of the globe. Therefore I shall not stop to dwell upon it, intensely interesting though it be, not more from its great and varied natural resources than from its wonderful history. Twenty years ago an almost uninhabited and unknown region, California had every prospect of having to await the gradual westward-bound progress of population. As if by magic, the discovery of gold transformed it into a land teeming with the energy, enterprise, and daring of every people, while at the same time it became the place of refuge of all the criminals and ruffians who could escape from justice, and buy or work a passage thither. Thus arose on the instant a state of society in which justice had little voice, and in which the revolver enforced the law of might.

Such was its birth. The California of to-day is a monument of the manner in which not merely Americans, but men of every political education, once inoculated with the spirit of self-government, have evolved order and stability out of a state of dissolution. And even thus, California is but the embryo of a giant, whose future growth will be, perhaps, less dependent on the nations of the Atlantic, than on those which are destined, in the next centuries, to encircle the Pacific with the homes of future civilization.

Shortly before my arrival in San Francisco, the Japanese Gov-

ernment had instructed Mr. C. W. Brooks, their commercial agent, to engage two geologists and mining engineers, for the purpose of exploring a part of the Japanese Empire. Through a misunderstanding, a copy of the correspondence, which passed through our minister at Yeddo, having been sent to Washington, our own Government proceeded to make the appointments. By a pure coincidence I was chosen as one of the two men, both at Washington and at San Francisco, my colleague appointed from the former place being Dr. J. P. Kimball, and from the latter, Mr. W. P. Blake.

In preparing for this journey I became indebted to many kind friends, especially to Professor J. D. Whitney, of the State Geological Survey, and to his Assistants, Messrs. Brewer and Ashburner, as well as to Messrs. Louis Janin and Henry Janin, of the Enrequita mines.

Following this sequence of events, Pumpelly departed for Japan in November 1861.