

OREGON AND CALIFORNIA

IN 1848:

BY J. QUINN THORNTON,

LATE JUDGE OF THE SUPREME COURT OF OREGON, AND CORRESPONDING MEMBER
OF THE AMERICAN INSTITUTE.

WITH AN APPENDIX,

INCLUDING RECENT AND AUTHENTIC INFORMATION ON THE SUBJECT OF

THE

GOLD MINES OF CALIFORNIA,

AND OTHER VALUABLE MATTER OF INTEREST TO THE EMIGRANT, ETC.

With Illustrations and a Map.

IN TWO VOLUMES.

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FORDING THE CANON.

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of New York.**

DEDICATION.

MY DEAR WIFE :

To whom could I inscribe these pages more appropriately than to yourself? There are many circumstances which make this peculiarly proper. In addition to many other facts to which I might refer as showing the peculiar fitness of that which I now propose to do, the single circumstance that you cheerfully shared with your feeble and travel-worn husband the toils and dangers of the journey, the incidents of which he proposes to narrate, would itself suggest the dedication of the volume to you.

Mohammed informs us that, although he had known many perfect men, he had known only four perfect women. These were Asa, the wife of Pharaoh; Mary, the daughter of Imram; Khadijah, the daughter of Khouailed; and Fatima, the daughter of Mohammed. There are no means of ascertaining what were the reasons which induced him to make the ill-natured distinction between the sexes; for it is a fact well known to every man whose associations have not been most unfortunate, that if by *perfect* be meant *good*, a comparison would be decidedly in favor of woman. Nor are there now any circumstances known which shed light upon the partiality of this impostor for the wife of Pharaoh, of whom nothing is now known. But we can not be in doubt as to the others, when it is known that the first was his nurse, the second his wife, and the third his daughter.

Not only was the remark a very ill-natured one, and very unjust, as implying a less degree of goodness in woman than in man, but it was likewise an extravagant one. I would not, indeed, willingly be thought to have a worse opinion of mankind than this false prophet had; but I can not persuade myself that he ever saw one perfect person of either sex, much less many of the one and four of the other.

In dedicating to you these pages, it will be seen, therefore, that I am not guilty of the folly of making an alleged perfection the ground of it, because it would be extravagant to claim this for even my dear good wife. But while I admit that it is possible to speak of even you in terms of too high commendation, I feel that I have cause to be grateful for the devoted fidelity you have ever evinced in the discharge of all the duties of a relation ordained of God, sanctified by religion, and established by the laws of man: that you have been my best and most constant friend, my wisest and most sagacious counselor, the sharer of my joys and the soother of my sorrows, my cheerful companion in adversity and ill health, and the charm and ornament of the humble home of

Your affectionate husband,

J. QUINN THORNTON.

P R E F A C E .

HAVING just written the last line of these rough notes of travel, comprising the narrative of a journey across the Continent to Oregon, and thence by sea to the United States, via California, in the years 1846, 7, 8: a few prefatory remarks are due to myself, no less than to the reader.

These notes have been written out under circumstances of great embarrassment, and with many unavoidable interruptions, which necessarily forbade that careful revision and regard to elegance of diction usually demanded in the preparation of works for the press. Scarcely had I reached the city of New York, with the view of making arrangements for publication, than imperative considerations compelled me to prepare for an immediate return to my distant home. My manuscript, therefore, had to go to the press in the state in which it first

came from my pen, and without my being able to see the proof-sheets. The fact is mentioned, not to deprecate criticism, for I am frank to confess myself not insensible to the value of the good opinion of the literary world: but rather that the reader may be induced on this account to extend that indulgence for any defects of style which he may discover in the progress of the work.

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OREGON AND CALIFORNIA.

CHAPTER I.

THE RENDEZVOUS.

THE ill health of Mrs. Thornton and myself caused us to determine upon a residence in Oregon, with the hope that its pure and invigorating climate, would restore this inestimable blessing we had long lost. Having completed the necessary preparations, we departed from Quincy, Illinois, April 18, 1846. In due time we arrived at Independence, Missouri, the place of rendezvous.

On the evening of the last Sabbath previous to leaving this place, we repaired to a house of worship, where we listened, with unusual attention and interest, to a sermon preached by a Methodist minister. We believed that it was probably the last time that we should hear preaching until after our arrival in Oregon. It is not wonderful, therefore, that we felt not only solemn but sad. Our hopes and fears had been greatly excited during several preceding weeks, while preparing for our long and arduous journey, and in bringing ourselves to submit to the severance of those endearing ties that bound us to the place and to the people; but the potent and sublime truths to which we then list-

ened, nerved us for the effort, by tranquillizing our excited feelings. We were about, too, to enter upon scenes in which we were to endure great mental and physical suffering, and we therefore felt that it was especially necessary to go up to the house of God; for nothing so effectually as Christianity can assuage these, or prepare the mind and heart for encountering them. And in our subsequent experience upon the way, we realized that Christianity is adapted to the peculiar condition and wants of the emigrant in the wilderness, no less than to persons in an improved and settled state of society; where the delicate sensibilities of refined and highly cultivated minds grow with the growth and expand with the expansion of the moral powers and affections.—(Mercury at sunrise, 53°; sunset, 76°.—Calm.)

This is the place where emigrants usually rendezvous for the purpose of completing their purchases for the journey, and making their final preparations. Most of the emigrants had already departed. Some were assembled at Indian Creek; a few were still in this place not yet prepared to depart. Among these, I became acquainted with Messrs. James F. Reed, George Donner, and Jacob Donner, together with their wives and families, all from the neighborhood of Springfield, Illinois, and all of whom proposed to go to California.

The town of Independence was at this time a great Babel upon the border of the wilderness. Here might be seen the African slave with his shining black face, driving his six-horse team of blood-red bays, and swaying from side to side as he sat upon the saddle and listened to the incessant tinkling of the bells. In one

street, just driving out of town, was an emigrant, who, having completed all his preparations, was about entering upon the great prairie wilderness; whistling as though his mouth had been made for nothing else. The shrill notes seemed to come up from the bottom of a throat without "a stop."

Here might be seen the indolent dark-skinned Spaniard smoking a cigar as he leans against the sunny side of a house. He wears a sharp conical hat with a red band; a blue round-about, with little brass buttons; his duck pantaloons are open at the side as high as the knee, exhibiting his white cotton drawers between his knee and the top of his low half-boots.

Santa Fé wagons were coming in, having attached to them eight or ten mules, some driven by Spaniards, some by Americans resembling Indians, some by negroes, and others by persons of all possible crosses between these various races; each showing in his dress as well as in his face some distinctive characteristic of his blood and race—the dirty poncho always marking the Spaniard. The traders had been out to Santa Fé, and having sold their goods in exchange for gold dust, dollars, and droves of mules, were then daily coming in; the dilapidated and muddy condition of their wagons, and wagon-sheets, and the sore backs of their mules, all giving evidence of the length and toil of the journey they had performed and were now about to terminate.

Merchants were doing all in their power to effect the sale of supplies to emigrants. Some of the emigrants were hurrying to and fro, looking care-worn, and many of them sad, as though the cloud had not yet passed away, that had come over their spirits, as they

tore themselves from friends and scenes around which had clustered the memories of the heart. One was seen just starting, calling out to his oxen, and cracking his whip as though the world was at his control. Although some four or five children in the wagon were crying in all possible keys, he drove on, looking as cheerful and happy, as though he was perfectly sure that he was going to a country where the valleys flowed with milk and honey. Behind the wagon, with her nose almost over the end board, an old mare slowly and patiently stepped along, evincing as much care as though she knew that she was carrying "mother" and "the baby," and therefore must not stumble on any account.—(Mercury at sunrise, 56°; sunset, 69°.—Calm.)

May 12.—Having completed all the arrangements that were necessary, previous to leaving the settlements, I bade farewell to the sublimely muddy Missouri, exclaiming—

"Green be your woods, and fair your flowers,
Your waters never drumlie."

During the day we passed many immense wagons carrying from 60 to 70 cwt. of goods for the Santa Fé market. We also met wagons returning empty. The proprietors, having sold their goods, were then on their way in, with gold dust, dollars, and mules. The drivers of the teams and mules presented that peculiar appearance already noticed, of a mixing of races of all possible colors, shades, hues, and complexions; of

"Mongrels, puppies, whelps, and hounds,
And curs of low degree."

The weather was clear, warm, and dry. The bees were out in search of flowers, and the large gray flies

were blowing their mellow little horns. The daisies, the first-born daughters of spring, were lifting their modest little faces to their father, the sun. The birds were rapidly passing from one twig to another, twittering as though their hearts were as full of happiness as they could hold. At one time they were seen darting into one thicket, and then into another, to find a suitable place for rearing their little families. Some were building their nests; one was pouring his love song into the ears of his beloved; and I almost fancied that I could see his eyes sparkle, and hear his heart beat as with stooping wing he received a promise from his lady-bird that she would indeed be his. Nature here, and all in nature, appeared to be too happy and beautiful to leave behind. I was quite unwell, but was as happy as the birds—my heart seeming to drink in the general joy.

We traveled twelve miles over a good road and encamped, about an hour before sunset, near a blacksmith's shop and two farm houses. The soil of the country over which we passed during the day was very fertile. Walnut, oak, ash, hickory, hackberry, elm, maple, and mulberry, grew in great abundance, and to a large size, upon the timbered lands. About one-half the country over which we passed during the day was prairie, covered with young grass.—(Mercury at sunrise, 54°; sunset, 69°.—Calm.)

May 13.—We set off this morning for the Indian country. Before noon we passed the last fixed abode of a white man—the last cabin—and immediately afterward entered the territory of the Shawnees. We continued to meet wagons returning from Santa Fé. We also met thirty Indians. In the afternoon we overtook

Ex-Governor Boggs and some California emigrants. We traveled about twenty miles over a beautiful rolling prairie, covered with tender green grass. A few trees were scattered over the country; and we saw here and there a patch of hazles, that seemed to have strayed away from the borders of the woodland.

We encamped at night in an open prairie, without wood for fires; and with ill-tasting water, rendered impure by decayed vegetable matter. We had seen many flowers and strawberries during the previous day, but on this prairie we saw only a very few of either. The country over which we passed was alternately rolling and flat prairie, having a rich soil, with an occasional tree near at hand, and here and there a group of timber in the distance. No birds were seen except a few among isolated hazle thickets, where they seemed not to be fixed, but rather to be, like us, emigrants seeking a better country. I advised them all to go back, unless they had the bronchitis so as to prevent them from singing. A mocking-bird, especially, who seemed determined to emigrate, I recommended first to go back and get a wife, assigning as a reason, that I had been informed that there were no lady mocking-birds in Oregon; and concluded by expressing the opinion, that if he did not, he might have to pair with a blue-jay, or perhaps even with a sparrow-hawk.

About sunset the heavens became overcast with clouds, and before darkness had fully set in, the rain commenced falling. While my two ox-drivers, Albert and David, occupied the tent, my wife and myself retired to the wagon for repose, she being at the time somewhat unwell. In a short time no voices broke the

stillness immediately around us, except that occasionally in the distance might be heard the neighing of a solitary horse staked out to grass, and calling in the darkness to his fellow, so as to be assured that he was not alone in those vast prairies. In the immediate vicinity of my wagon, however, no voice was heard, and the very wind seemed to be holding its breath, and listening with me to the rain drops which, falling from the melting and dissolving clouds above, pattered upon our wagon-sheet with a most pleasant and soothing sound.—(Mercury at sunrise, 64°; sunset, 66°.—Wind, west.)

May 14.—We resumed our journey about 3 o'clock, A.M., and traveled over a rich and beautiful prairie, generally high and rolling. In some places, however, it was broken into long, broad, and very muddy swells, which were difficult to cross with our loaded wagons. The day was cloudy and somewhat cool, and the road rather heavy, in consequence of the rain of the previous night. Far off to our right appeared some hills. We encamped at night on the banks of a small creek, which afforded us water, which, at that time, we thought very bad. Wood was difficult to obtain.—(Mercury at sunrise, 62°; at sunset, 61°.)

May 15.—The morning was clear, bright, and pleasant. We crossed a very bad creek in the forenoon; and, although very unwell, I jumped into it for the purpose of preventing the oxen from stalling. The country which we passed did not differ materially in its general appearance from that over which we traveled the day before, except that the soil seemed to contain more water, and the roads were therefore muddy in many places. There were also a great number of

swells. We saw no birds or wild beasts during the day. We met a number of Shawnee Indians. About the middle of the afternoon, Ex-Governor Boggs and myself with our wagons, teams, and those of some others, came up with the main body of the California emigrants, consisting of 63 wagons, under Col. W. H. Russell, who were still considered as being at the rendezvous, having moved forward a little, but having halted again for emigrants whom they expected to join them. We were immediately invited to attach ourselves to their party, and to remain with them until those of us who proposed to go to Oregon, should find ourselves in sufficient numbers, by new accessions, to form a company of our own.

We all crossed the Wokaruska Creek, and encamped for the night in a most beautiful piece of woods, which skirted both sides of the stream, distant twelve miles from our camp of the previous night. The impressions made upon the mind by the neighing of the horses, the braying of the mules, the groups of men, the little knots of women, the loud, merry laugh of some of the children, the crying of others, the mingling of voices, the walking to and fro, the ascending smoke in front of the clean, white tents scattered among the trees, reminded me of a Methodist camp meeting.

In the evening, an inquiry was instituted for the purpose of ascertaining the sufficiency of the wagons, teams, and provisions; the number and sort of arms; the amount of powder and lead; the number of persons capable of bearing arms, and the number of all other persons of either sex. The notes of this enumeration, having been made in pencil, have become partially illegible. The following are believed to be the numbers:

Wagons, 72; men, 130; women, 65; children, 125; breadstuff, 69,420 lbs.; bacon, 40,200 lbs.; powder 1100 lbs.; lead, 2672 lbs.; guns, mostly rifles, 155; pistols, 104; cattle and horses, estimated at 710.

The wagons were generally new, strong, and well painted. They were all covered with strong linen or cotton drilling; some of them being painted, so as more effectually to repel the rain. Some of the wagons had "California" painted on the cover; some of them displayed "Oregon"; some added, in large letters, "The whole or none"; some "54° 40''"; while many, like mine, were not distinguished at all. The cattle were numerous, fat, and strong; the tents new and clean; the food of good quality, and abundant in quantity and variety. All persons were remarkably cheerful and happy. Many were almost boisterous in their mirth. We were nearly all strangers, and there was manifestly an effort on the part of each, to make the most favorable impression he could upon every other. All were obliging and kind; and there was even an extraordinary absence of selfishness. Suffering, want, and privations; mental anxiety, hardship, and exhausting labor, had not yet blunted the moral perceptions of any, excited cupidity and selfishness, or dried up the fountains of the heart's best and purest affections.

Every thing seemed calculated to put us in a good humor with ourselves and each other. The green coated frogs were heard in great numbers among the plashy pools and along the reedy margin of the stream; and the sound was far from being disagreeable. Indeed, there was a music in it appropriate to the place, the scene, and the circumstances; and it had a soothing

and quieting effect. The birds poured forth their most rapturous notes. The water was then gushing through a thousand veins of the earth, although it had, until very recently, been congealed by the frost of winter. It murmured and leaped, and sparkled down the green hill side, and ran joyously to unite itself with the stream below, as if it did indeed rejoice that the prison in which it had been so long barred and bolted, had been broken at last by the genial spring. The sap was coursing its way through the plants, and the vital fluid moved quickly through human veins with increased velocity and a new thrill of delight. A narrow strip of the richest and most beautiful forest trees, about half a mile in width, skirted each side of the Wokaruska. From both sides of the woodland spread out, as far as the eye could reach, a plain, broken into gentle swells, and covered with a heavy coat of grass. A green carpet spotted with flowers, covered the hills and valleys; and a robe of as deep a green, variegated with beautiful blossoms, was hung upon thicket and forest. Flies and insects had emerged from their hiding places, and were humming drowsily. The shrill chirping of the birds, the plaintive cooing of the turtle-dove, as she sat alone among the shady boughs, all told that spring, the joyous and beautiful spring, had returned to gladden the heart of every living creature. The children were wandering in the woods, making them echo with their merry shouts. They appeared to have been let loose to play and to gather leaf-buds, dandelions, buttercups, daisies, and a thousand flowers of every hue, that lifted their soft, mild eyes to heaven in thankfulness for the warmth and sunlight. It was, indeed, with emotions of the purest delight, that I

looked upon jubilant nature, decked in her fairest dress; and I could not but think, that these grateful and inspiring influences would find a ready response in every heart.—(Mercury at sunrise, 43°; sunset, 61°.—Wind, northwest.)

CHAPTER II.

JOURNEY TO GREAT BLUE-EARTH RIVER.

“An agreeable companion upon the road is as good as a coach.”

“Quanto quisque sibi plura negaverit,
A Dei plura feret.”

HORACE.

“They that do much themselves deny,
Receive more blessings from the sky.”

CREECH.

May 16.

I SAW an Indian working with great vigor, skinning and cutting up for food an emigrant's ox that had died during the previous night. He cut away large pieces, and put them upon the shoulders of his squaw, who carried them to their wigwam for the purpose of jerking them. It was a most loathsome and disgusting mass of blood and disease. But the face of old Copper-skin was lighted up in a manner that showed that he felt he had quite a wind-fall. We saw many Indians here, several of whom came into our camp apparently with the design of begging or stealing, as might under the circumstances be deemed most expedient and most likely to be successful. They were a miserable and degraded looking people, belonging, I believe, to the Cow or Kansas tribe, for they are known by both names. I know not that they differed from other Indians I had seen, in the contour of their faces

and in their general appearance, except that they seemed to be poorer.

Up to this point we seemed not to have fairly and fully set out upon our journey. This was not exactly the place of rendezvous, but rather the end of the rendezvous—the last place of waiting for emigrants to come up. Our arrangements were therefore made for a final departure. The tents were hastily taken up, and the cooking utensils packed. The men hurried to and fro, gathering their oxen together, and yoking them to their wagons. The sound of the ox-rings working in the staples, the jingling of the chains, and the confused voices, sometimes raised into a key denoting a little impatience, presented to my eyes and ears a scene which to me was both novel and agreeable. My ox-drivers yoked my team, and soon we were ready to move. The women put on their bonnets, and the children were hastily lifted into the wagons. In a short time the teams began to move on, and soon there was a long line of slowly-moving white-covered wagons, drawn by large fat oxen, driven by men who walked at their side and ever and anon cracked their whips, and then their jokes, as though there was music in the sound of one, and fun in the perpetration of the other. We were now *en route*, some for Oregon and some for California.

All were filled with high hopes and expectations for the future, and all were animated in their conversation. The most of them were obliging in their conduct, and polite in their manners and deportment. Many who had large families of children were removing to Oregon with the hope of finding a more salubrious climate than the one they had left, and of obtaining

from the government of the United States a grant of land which would enable them to maintain their families in an honorable independence. Some had become involved in pecuniary embarrassments, and having sold their property to pay their creditors, could not consent to remain where they must necessarily see their former pleasant homes in the hands of others; and they had resolved upon making an effort to retrieve their fallen fortunes in Oregon, where they flattered themselves that if they accomplished no more, they would at least avoid a position in which the wealth and splendid equipages of others would upbraid them for their poverty. Others had, during a long time, their yearly acquisitions taken from them by eager creditors, who had thus crippled their resources, depressed their energies, and deprived them of all hope either of paying their debts or of being able to educate their children. They hoped that by emigrating to Oregon they would for a few years escape harassing observation, and thus be able to accumulate the means of meeting all their engagements. Many were in pursuit of health. Some were actuated by a mere love of change; many more by a spirit of enterprise and adventure; and a few, I believe, knew not exactly why they were thus upon the road. The motives which thus brought this multitude together were, in fact, almost as various as their features. They agreed in the one general object—that of bettering their condition; but the particular means by which each proposed to attain this end, were as various as can well be imagined. These remarks apply with equal force to the California emigrants, with the exception that some of them expected to obtain grants of land in that country from the government of Mexico.

Nor were the people less different in their general appearance, manners, education, and principles. The majority were plain, honest, substantial, intelligent, enterprising, and virtuous. They were indeed much superior to those who usually settle a new country. They were, for the most part, estimable persons, the loss of whose society was felt and regretted by those they left behind.

We traveled on this day twelve miles, over an ascending limestone prairie, of a deep, rich, black soil. It was somewhat broken with hills, and was covered with a fine coat of fresh green grass. Small groves of timber, representing parks, pleasure grounds, and the avenues of princely estates, appeared in the distance. The day was clear, dry, and warm; and the road a good one, except about a mile immediately after leaving our camp in the morning. We saw few birds or beasts during the day after leaving the woodland in which we encamped. In the evening I attached myself to that division of the main body under the command of Capt. Jacobs, a young man of worth and character from Louisville.

Some of our party having, a short time before we encamped, seen a small company of Indians encamped in a valley upon our right, went to them, where they found Hachingo, a Kansas chief, together with two warriors and their squaws and children. They were encamped under smoke-colored skins, raised about two feet from the ground. The chief had a rifle, the use of which he seemed not to understand very well. His face was painted red, and his hair shorn, leaving a small scalp-lock upon the top. He wore suspended about his neck a medal of Jefferson. The chief was

about fifty years of age, and rather good looking. The squaws, and children, were filthy and miserable looking beings.

During the day, a man belonging to one of the advance companies overtook us, bringing with him the Missouri Republican, containing an account of the defeat and capture of Capt. Thornton and his company of dragoons.—(Mercury at sunrise, 69°; sunset, 72°.—Calm.)

May 16.—Sabbath.—We rose early—the morning was bright and beautiful; the silence unbroken by aught save the peculiar soughing noise—for note it can scarcely be called—of the grouse. Although the dawn was calm and peaceful, and seemed to invite to heavenly musings and holy contemplations; yet soon the ear was saluted with confused sounds of the lowing of cattle, the neighing of horses, the braying of mules and asses, the tinkling of bells, the tramping of busy feet hurrying to and fro; the clatter of cooking utensils, the frying of meat, the exchange of morning salutations, etc.

We believed that we ought not to travel upon the Sabbath, and desired to remain in camp; but the company having no scruples of the kind, determined otherwise. We were therefore compelled to choose between this and traveling alone through an Indian country, where no opportunity to steal is permitted to pass unimproved, by the predatory tribes that lurk about for spoil. Mrs. Thornton hastened our preparations for breakfast, a portion of which she put aside for an Indian and his papoose, and we sat down to our morning meal with hearts of thankfulness and gratitude to God for his abundant mercies. This being over

Mrs. Thornton and myself, went forward on foot in advance of the company, for the purpose of spending the day in as much retirement as possible, and of enjoying in some measure the sacredness and beauty of the hallowed hour.

Instead of lessening in its influence upon our minds, Christianity seemed to acquire in our estimation, remote as we were from the sacred temples, and the sound of the church-going bell, a new importance and value. We certainly knew before that it was suited to the necessities and emergencies of fallen man, in all climes and vicissitudes, and adapted to his moral powers in every stage of their development. But this we had not always felt as at present, as a sensible, practical, and, in some sense, tangible fact. Far from losing any of its attractions by so great a change in our condition, it was the very thing, above all others, we needed upon the road, to tranquillize and compose the mind.

The morning was warm, cloudless, and delightful: and seemed to bring with it not merely rest, but sacred rest, the returning moments of which our reviving hearts welcomed and rejoiced in. We endeavored to call off our thoughts, as far as practicable, from every care, and from every external object, except so far as these assisted us to contemplate the power, wisdom, and goodness of God.

The day being very warm, the cattle suffered greatly from fatigue, and one that was very fat became greatly heated, and died.—(Mercury at sunrise, 68°; sunset, 78°.—Wind, southwest.)

We traveled twenty-five miles, and encamped an hour before sunset upon a low prairie, near a creek, skirted with a very handsome growth of timber, within

four miles of the Kansas river, in the vicinity of an Indian village. At this place, we were informed that the main body of the Oregon emigrants had crossed the Kansas, on the Friday previous. Many Indians, dressed in all their savage finery, infested our camp, begging for "hog," by which they meant bacon.

The country over which we passed during the day, was a beautiful, rolling, fertile, limestone prairie, covered with a rich and luxuriant coat of grass; in some places rising almost into hills. A few small oaks and tall quivering aspens, were seen near at hand in ravines. In the distance larger groves were seen skirting the horizon.

May 17.—Mr. Jacobs, who had been appointed sub-captain, Mr. Kirquendall, our quarter-master, and the pilot, were sent on the morning of this day to a mission about ten miles up the Kansas, for the purpose of ascertaining if the stream was fordable at that place. Our excellent and worthy leader, Col. Russell, rode to the ferry, five miles distant, for the purpose of obtaining a ferry-boat, if this should be found to be necessary.

In the mean time, we resumed our journey at about 7 o'clock, A.M., and having crossed the creek, which wound along among elm, oak, and walnut trees, proceeded on four miles, when we arrived at the Kansas river, where we deemed it imprudent, in consequence of a threatened rain, to delay crossing until the return of Mr. Jacobs. We were detained a long time, in consequence of the tedious process of taking over so many wagons in a small ferry boat. Col. Russel was very active and efficient.

The labor was commenced at one o'clock. The

wagons were drawn by the teams as near to the boat as possible, when the oxen were taken away, and the wagons with their loads were then lifted and pushed into the boat. With great effort and toil the thirty-five wagons of which our train now consisted, got over by 6 o'clock, P.M. Our company had been diminished about four miles back, by Mr. Dunleavy, with a large company of wagons, having remained behind, in consequence of being dissatisfied with the organization of the company.

Near the ferry was a small cabin, the first one we had seen since we left the settlements of Missouri. It was occupied by a Frenchman who kept the ferry. His wife was a Kansas sqaw, who seemed to possess far more intelligence than most Indian women. She had been taught to read a little at a Methodist mission; but the knowledge which she there acquired, she had for the most part forgotten. I had procured a great many tracts from the American Tract Society, for the purpose of distributing along the way, among the emigrants, and in Oregon. Mrs. Thornton gave some of these to the woman, to be read by her husband, which were received with apparent satisfaction.

We saw many Indians here, some of whom were dressed in savage finery and gewgaws; but the most of them appeared to be very poor, filthy, and covered with vermin.

The wagons, teams, and loose stock, having all been taken over, we proceeded through a beautiful woodland of oak, ash, walnut, sycamore, quivering asp, hazle, grape vines, and a variety of under-growth, which skirts both sides of the Kansas river, about half a mile on either side. Passing thence three miles and a

half through a level and rich prairie, well covered with nutritious grass, we encamped for the night on the bank of a small creek, a tributary of the Kansas, having traveled eight miles during the day. Mr. Webb, editor of the "Independence Expositor," and a Mr. Hay, arrived in camp a little after dark, having come direct from the settlements to communicate to us the last intelligence we should receive before arriving at the Pacific. The letters and papers brought by them, gave us positive information of the commencement of regular hostilities, and of the perilous position of the noble and gallant TAYLOR. But I did not doubt that the resources of his great mind and his unsurpassed military skill, would enable him to extricate himself in a manner that would be honorable to the American arms, and add additional luster to a name already greatly endeared to his admiring countrymen; and an opinion was expressed that he was destined to become more distinguished, and would yet be elected by a grateful people to occupy an office, sublime in its elevation; and that in this, too, he would give to the world proof of his being equal to any emergency.

May 19.—An event occurred, which ought to be chronicled in due form in our journal of adventures. At 10 o'clock on the previous night, Mrs. Hall became the mother of twin boys. Dr. Rupert, the attending physician, gave his own name to one of them, and the name of our worthy leader, Col. Wm. H. Russell, was given to the other. While we moved forward to a new encampment, Mrs. Hall and her husband, and a few friends remained behind to "hunt cattle," alleged to have strayed. Eleven wagons, belonging to James F. Reed, George Donner, Jacob Donner, and Mr.

Hall, the latter containing the little fellows, came up to us where we had remained in camp on account of these interesting young strangers.

A new census of our company was taken during the day, which resulted in showing that we had:—Fighting men, 98; women, 50; wagons, 46; cattle, 350.—(Mercury at sunrise, 70°; sunset, 70°.—Calm.)

We found many very fine strawberries in the vicinity of our camp. The croaking of the frogs along the reedy margin of the stream and about the borders of the lowlands, was to me, I must confess again, most pleasant, and produced within me far more agreeable sensations than most performances on the piano would, under other circumstances, have been likely to awaken. This will probably not be comprehended by any one who has not been similarly situated. To me every thing in nature, in the wilderness, was musical, if it had a voice at all. The chirp of the cricket, and the voice of the whip-poor-will at night, produced sensations of pleasure that were inexpressible. The sound fell upon my ear as I reposed upon my rude bed at night, and it ran along every nerve of my body, reaching even to my fingers' ends, like the vibrations of a harp string. The stream on which we were encamped, is called Soldier Creek, from the circumstance that several years before the time of our encamping there, a party of Indian traders and trappers had smuggled into the country a quantity of whisky. They were pursued by a company of U. S. dragoons, who overtook them at the place we were then at, and knocked in the heads of the barrels.

At an early hour after breakfast, the bank of a small rivulet near our camp was lined with fires, kettles,

washtubs, and almost any amount of unwashed linen. The timber on the creek consisted of oak, linden, and some maple, of great size, growing in a soil of rich, argillaceous loam, like that of the Kansas, and capable of producing in great abundance, all the crops common to the latitude. A very coarse species of grass grew in rich luxuriance.—(Mercury at sunrise, 62° ; sunset, 75° .—Wind, northeast.)

May 20.—Dr. Rupert left us on the morning of this day, to return to Independence. He had accompanied thus far a brother, a consumptive invalid, who was attempting to make the journey to California, with the hope of being improved in his health. We traveled eight miles during the day, over a most beautiful rolling prairie, having a rich vegetable loam soil, and skirted in the distance with fine groves of thrifty looking timber. We passed about mid-day a deserted Indian village, situated on our left, about a quarter of a mile from the usual traveled way. The huts were constructed of the bark of trees, secured to upright poles, with cross timbers running up like the rafters of a house. Externally these habitations were very like some of the low-roofed cabins occasionally seen on the borders of the settlements in our Western States. The site was in the immediate vicinity of a rich open woodland, and was a quiet green prairie. By parting the grass with the hand, many rich strawberries were found, which had grown to maturity and had ripened in the shade.

The scenery of the country through which we passed during the day was in a high degree interesting and delightful, and more than compensated us for the fatigue of travel; and it seemed to give us a most deli-

cious foretaste of the satisfaction we expected to enjoy in the subsequent portion of our journey, in which we anticipated seeing the grandeur of nature in all her wildest and most imposing aspects.

The timid deer, startled by the noise of approaching feet, rose in haste from a covert in the grass, or from behind a little cluster of willows, and bounded across the prairie to a more secure retreat in remote valleys. Green hills stretched away in the distance, some of them being crowned with forests of primeval vastness and magnificence, while others were clothed in velvet of the richest green. The little groves of timber scattered about over the plain, were not wholly unlike clusters of islands that dot a waveless sea. The green hills of the Kansas lifted their heads on our left; and the river, more beautiful for being seen far away, stealthily flowed along at their base in its smooth and unresisted course, irrigating and fertilizing the verdant and luxuriant meadows below.

The occasional refreshing showers that fell, while all was serene and cloudless above, suggested ideas of the most pleasing nature, and produced the most delightful sensations. There appeared to be over and about the whole scenery a charm which operated with the fascination of magic; and although Mrs. Thornton is an ardent lover of nature, I had never seen her so enthusiastic. Indeed, every external object, and every element between the verdant earth below and the blue sky above, ministered delight to some one of the senses.

About noon, the heavens were suddenly overcast with clouds, and heavy rain, accompanied by thunder and lightning, continued to descend upon us, until three o'clock, when we encamped on a high prairie, distant

about one mile from wood and water. The night a. length came on, its solitude being disturbed by the rushing of the wind, the hooting of owls, and the howls and the sharp snarling barking of wolves.—(Mercury, at sunrise, 71° ; sunset, 74° .—Wind, northeast, and very fresh.)

May 21.—We continued our journey seven miles to a creek, the banks of which were so steep as to make it necessary to let down the wagons by means of ropes into the stream, when teams were doubled for the purpose of drawing them up the opposite bank. The process was difficult and tedious, but was at length accomplished. We encamped about an hour and a half before sunset, in a bend of the stream, about a mile from where we crossed, upon an open prairie, similar to the one over which we passed on the day before.—In the forenoon we saw several large rocks of sandstone.

The early part of the day had been clear and warm, but about 12 o'clock the clouds began to gather and lower in the west. In a short time, peals of thunder were heard in the distance, the intervals between them gradually diminishing, and the sound as gradually becoming louder. The clouds continued to roll toward the zenith, with green edges, but dark and murky in the main body, and to sweep upward like a vast body of smoke ascending from a smoldering volcano. In a brief period the sun was obscured. A green haziness began to fill the atmosphere and the whole distance between the moving clouds and the earth, and to throw a sort of dull green disastrous twilight upon all below. The lightning, followed by sharp peals of thunder, was observed at length to leap from cloud to cloud, like the

advance columns of approaching armies engaging in a sharp conflict. A murmuring sound of a somewhat extraordinary nature was heard in the west, which became each moment more distinct, as of marshaling hosts rapidly preparing for dreadful conflict. In a very few minutes, a blasting flash of lightning, and a deafening crash of thunder, seemed to give the signal for a general and terrible engagement. The wind blew a tremendous blast, which laid the weeds and grass prostrate to the earth, and immediately the air was filled with flying leaves and twigs, swept before the advancing tempest. The winds passed on, and heaven's artillery seemed at once to open from every cloud, and immediately the earth was deluged with torrents of rain. Flash followed flash in rapid succession, casting a lurid glare upon every object; and thunder warred upon thunder, in a manner that awed every faculty, and hushed every emotion and feeling but that of the sublime. The clouds rolled forward their dark and green masses, and at length passed far away to the east—the thunders becoming less and less distinct, until they were only heard in low, rumbling sounds, although the lightning at intervals was seen running along the clouds. The declining sun at length appeared, and a most beautiful rainbow was hung out by it, as a signal that the elemental strife was over and that nature was again at peace. The landscape assumed its wonted appearance of tranquillity, in no respect changed, except that it looked more fresh and beautiful. Columns of mist began to ascend in the distance from the earth, like the incense of the grateful heart going up to heaven for God's providential care and goodness. The sun then sank to rest, and night, with

her curtain adorned with gems, shut out the day, and the weary emigrant, and his not less weary cattle, sought repose during the night.

Mr. Alphonso Boone, a grandson of the celebrated Daniel Boone, and a brother-in-law of Ex-Governor Boggs, came up with us in the afternoon. After the first ordinary camp duties were over, the men amused themselves by target-shooting, with the rifle. Mr. Brown, of Kentucky, claimed the best shots. At night the cattle were driven into the *kraal*, to prevent the Indians from stealing them.—(Mercury, at sunrise, 65°; sunset, 80°.)

May 22.—This morning thirteen wagons, near half of which belonged to Mr. Gordon, of Jackson county, Mo., separated from our party, assigning as a reason for so doing, that the company was too large to move with the necessary celerity. A restlessness of disposition, and dissatisfaction, produced by trifling causes, and a wish to rule rather than be ruled, to lead rather than be led, are the sources of frequent divisions and subdivisions of companies.

We resumed our journey, and traveled seventeen miles over ascending and broken prairies of great beauty and fertility. We saw many flowers, some of which resembled the tulip, others pea-blossoms, and others lady-slippers. The latter were divided into two equal parts by a membranous partition. We saw many Kansas Indians during the day, some of whom continued riding along with us.

Under this date, I find the following, among other remarks, in Mrs. Thornton's journal: "I saw many Indians, one of whom offered all his money to Mr. Thornton for his squaw's parasol; designating the

parasol by pointing to it. Squaw did not think proper to part with it." In a subsequent part of our journey, however, a savage, who calls himself a white man, took "squaw's parasol" in the cañon of the Umpqua mountain, without offering all his money, or, indeed, any money.

The Indians seen during the day appeared to be very poor. They were great beggars, and most of the families in camp gave them more or less food. Some of them had a little money, which they offered for "hog." We hired Ki-he-ga-wa-chuck-ee, the chief, to restrain his people from stealing. One would feel a little awkward, however, in approaching a white savage, and asking him how much he would take not to steal. Imagine the anxious and suspicious owner higgling with the white thief about the price.

"Come, now, tell me how much you will charge not to steal my clothing."

"Well, I reckon, about one dozen shirts, one dozen pair of pantaloons, a dozen pair of drawers, and a dozen pairs of socks, would be about as little as I could well afford to take."

We saw at our evening encampment, an Indian wearing a British scarlet uniform. "A little girl," says Mrs. Thornton's journal, "had on a scarlet blanket with two shades of pink ribbon sewed on it, leaving a little of the blanket to appear between the stripes. The edges of the blanket were ornamented with green ribbon. It looked very well.—I have been laboring very hard, but still enjoy the journey very much. Its very novelty is exciting. Nature, too, presents so much that pleases the eye by its beauty, or that touches the heart by its wonderful adaptation to

the wants of man, and ministers to the happiness of the creatures of God's providential care and goodness. Text for meditation, Heb. iii. 17, 18."

The day was clear, dry, and moderately warm; the country showing very few trees, and these were oaks of small growth and very much scattered. The hills were covered with a short, green grass, while that in the valleys along the streams was tall and thick. We saw but one bird, a sparrow.—(Mercury at sunrise, 69°; sunset, 78°.)

May 23.—The Indians came into our camp at a very early hour, begging with great importunity. To Ki-he-ga-wa-chuck-ee and his beauteous spouse we gave, by general contribution, a considerable quantity of flour, bacon, etc., as the price which we had promised if he would not steal. We broke up our encampment at about 8 o'clock, A.M., and traveled fourteen miles over a beautiful, rolling country, having a deep and rich vegetable soil, and adorned with several very pretty, but small skirts of oak timber. Two Indian chiefs accompanied us during the day. The ford of the creek, which we crossed immediately after commencing our day's march, was difficult to pass, in consequence of its steep banks and muddy channel. We were obliged to cut down trees, and to fill up the passage with logs and brush. Our way during the day led through a very fertile and beautiful valley, bounded on the east by a chain of oval-shaped prairie elevations, and on the west and in front by fine groves of timber. The country appeared to be in a very high degree adapted to agriculture and grazing. Granite, flint, and sandstone, were seen in boulders.

The Indians in this region procure for food considerable quantities of a farinaceous prairie root, having a flavor more agreeable than that of the potato.

In the afternoon we met, near a pond of water, four Rocky Mountain trappers, who were returning to the settlements in company with a number of Indians of the Delaware tribe. Their costume was unique. From the saddle of one of them was suspended a raccoon, a turkey, and several squirrels. They informed us, that on the Nebraska, some two or three hundred miles in advance, we should see immense herds of bison; when we might literally live on the "fat of the land."—(Mercury at sunrise, 69°; sunset, 78°.)

May 24, Sabbath.—No rest for man or beast. We traveled eighteen miles over a country very much broken; the streams being numerous, and the water and grass both good and abundant. The day was clear and warm. Two of the cattle died from heat. The roads were dusty, and the winds very high. The first five or six miles of our way, led us over a beautiful rolling prairie, adorned with a few small groves of trees. We then crossed a clear and rapid stream, affording fine water-power for mills, and flowing over a smooth, gravelly bed. A spring of delicious cold water gushed from a ledge of limestone rock. The banks supported a thrifty growth of oak, elm, and linden trees, and the rich and gently undulating bottom was covered with luxuriant vegetation.

Upon ascending from the low land of the stream, a long line of green mound-shaped knolls stretched far away on either hand; from the tops of which we had a fine view of the undulating country over which we had passed.

After passing over these elevations a few miles, we found on the right of the emigrant road another spring of cool water. On the way to this point I observed a great variety of flowers, including the tulip, sweet briar, honeysuckle, and the wild rose. The timber in the country over which we passed, was nearly all found in the ravines and along water courses.

We encamped in a hollow near a spring of cold water, and in the immediate vicinity of three elm trees, which constituted the only wood near us. A dead and prostrate elm was hauled some distance to our camp, and divided among the various messes. Several persons were quite unwell.—(Mercury at sunrise, 72°; sunset, 75°.—Wind, northeast, strong.)

May 25.—We traveled until about the middle of the afternoon; but scarcely had we got our tents spread, when a tremendous storm of wind and rain came up, accompanied by vivid lightning and almost deafening thunder. The rain poured in torrents down the hill sides, and tumbled tumultuously into the streams below. The clouds at length passed away, the bright sun shone out again, and a remarkably beautiful rainbow appeared to complete a scene of unsurpassed loveliness.

After the storm had passed away, and the waters had left the hill side hard, and comparatively dry, I strolled along the road to enjoy the scene, when I came up with little Patty and her brother, children of one of our company. She was busied in calling the attention of little Tom to a variety of objects that seemed to please and delight him. At the moment I came up they were admiring a large butterfly, which, like us, had ventured out after the storm.

"You are a dear, sweet little girl," I said to Patty, as I approached them, and tenderly put my hand upon her cheek.

"Yes, and Tommy here is a dear, sweet little boy; so he is, isn't he? He is my dear little brother," she continued, affectionately, as she threw her arms around his neck and drew him nearer to her.

"Oh! you, Patty, you, do quit," said Tom, somewhat fretfully and impatiently, as he stumbled; "you almost threw me down. You are always a-huggin' me, so you are."

"May God bless the little girl," I exclaimed, "and bless both the children," I continued, as I remembered that in the greater interest which Patty's unselfishness had caused me to feel for her, I had for the moment lost sight of the boy.

What a simple yet touching instance was this of sisterly regard, and the absence of selfishness; and how eminently beautiful will be the piety of that interesting child, if in after years her heart should be given to the Saviour in a consecration of her life to his service. The words of the other, and the manner in which they were uttered, show the speaker to be a boy. He is a rough, boisterous little fellow, who loves Patty very much, but himself more. He evidently has no sort of objection to the affectionate caresses of his sister, but he does not like to be made to stub his toes. Patty's heart is so warm with love, and is so brimful of joy, that she does not stop to debate the question as to whether her brother may not possibly stumble a little; nor does she delay, until she has cleared the ground for her loving demonstration, and then bid him have a care to his feet, since she is about to be upon his neck. Tommy

has not yet learned, in the language of one of the mottoes at the head of this chapter, that

“They that do much themselves deny,
Receive more blessings from the sky.”

Nor, indeed, has Patty. She has never made a nice calculation of how much she would receive in return for her love; and yet, if we may believe Tommy, she was “always a-huggin’” him, because “he is a dear, sweet little boy; so he is, isn’t he?”

Whoever rightly considers the subject will, I believe, come to regard selfishness as the source of all the moral evils with which humanity afflicts itself. As little doubt can be entertained, that the present peace and future happiness of man is increased in proportion to the extent to which he becomes unselfish, by means of the power of the Christian religion, chastening and subduing this natural propensity. The unselfish man, considered only as an inhabitant of this world, and not as a probationer for another, greatly adds, by means of his noble, generous, self-sacrificing, self-denying spirit, to the sum of his own enjoyments. Reason having moderated his wishes, and expectation doubled every present good, his heart is neither gangrened with envy nor corroded with care. The elements all minister to his happiness; and those blessings which are usually regarded as coming round in the regular operation of the laws of nature, are to him new and valued acquisitions, for which his heart devoutly glows with gratitude, love, and thankfulness to the Supreme Giver of every perfect gift. The blessings of Providence and the blessings of grace, are regarded by him as descending from the same source, and he would as soon think of drawing to himself the sum of the one

as of the other.—(Mercury at sunrise, 71° ; sunset, 73° .—Wind, east.)

May 26.—Resuming our journey about 8 o'clock, A.M., we traveled twelve miles over an ascending but very broken prairie, and encamped, at 2 o'clock, P.M., on the left bank of Great Blue-Earth river, after a fatiguing drive over roads rendered muddy by the rain of the previous afternoon, which had also so much swollen the stream as to make it doubtful when we would be able to cross. A large quantity of drift-wood was floating on its surface.

We saw the sensitive plant and *Angelica* in several places during the day. The timber at the place of our encampment consists of large sound trees of oak, walnut, cotton-wood, beach, and sycamore, constituting a most beautiful forest about one mile in width, spread out upon a very fertile alluvial bottom. Immediately above the ford, a small branch, supplied by numerous springs, empties into the main river, which there runs nearly from the south to the north. A small military post ought to be established at this point immediately.

The soil of the country over which we passed during the day was a rich, black, vegetable loam, tolerably well covered with grass. The hills in the distance presented the remarkable appearance of having had their tops reduced by art to a common horizontal line; each system of hills, however, if I may be permitted so to speak, had its own peculiar line, which, although broken by valleys coming down to the plain, lay stretched in fragments, showing that no hills of that chain rose above it, but that all rose to it. Mrs. Thornton remarks in her journal: "I think I never enjoyed life more fully than during this day. Nature rejoices

in its freshness. Perhaps my happiness would be too great had I time to run about and drink in its beauties, and gaze upon the tops of the high green hills, which seem to be almost vocal with hymns of thanksgiving and hallelujahs of praise. Of this place and the surrounding scenery, it might with great truthfulness have been said :

‘ Unusual sweetness purer joys inspires.’ ”

The day had not only been delightful, but no disagreeable incident had occurred to mar the harmony and disturb the peace of the party.

In the evening, Ex-Governor Boggs, Mr. J. F. Reed, Mr. George Donner, and some others, including myself, convened in a tent, according to an appointment of a general meeting of the emigrants, with the design of preparing a system of laws for the purpose of preserving order, etc. We proposed a few laws, without, however, believing that they would possess much authority. Provision was made for the appointment of a court of arbitrators, to hear and decide disputes, and to try offenders against the peace and good order of the company.—(Mercury at sunrise 69°; sun set, 78°.)

CHAPTER III.

THE BLUE-EARTH RIVER ENCAMPMENT.

“Nil ego pretulerim jucundo sanus amico.”

HOR. *Sat.*

“Nothing so grateful as a pleasant friend.”

“For God the whole created mass inspires ;
Through heaven, and earth, and ocean depths he throws
His influence round, and kindles as he goes.”

DRYDEN.

May 27.

THUNDER storms seem to be frequent in the region of country in which we were encamped at this date. We had a most tremendous one on the previous night. The clouds gathered in threatening and ominous blackness, rising to almost twenty-five degrees above the horizon, where they continued for some time in a very singular and disturbed state ; the forked lightning leaping angrily and fiercely from cloud to cloud, the thunder bellowing in the distance. The angry and vengeful masses at length rolled rapidly up, and the storm rose to an unexpected height. In an instant, the swollen clouds seemed to burst, and pour a deluge of rain, with which the hill-sides and the plain were almost immediately flooded. Cataracts of fire fell upon the earth in lurid sheets, or ran along the ground in every direction, and with a light so intense as to threaten to blast the sight. Heaven's awful thunderbolts flashed along the ground or among the

trees, rendering every object for a moment perfectly visible, and were then extinguished in more than midnight darkness.

I was standing guard from eleven to twelve at night, during which time the storm spent its fury. The lightning sometimes, as I almost fancied, ran down my gun barrel, quivered at my feet, and then went out in hissing and darkness. The atmosphere was filled with a sulphureous stench. The heavens were sometimes one vast sheet of flame, the earth itself seemed to tremble beneath the tremendous voice of the thunder, that every moment increased, until it seemed to be loud enough to rouse the dead. It pealed, crackled, crashed, and bellowed in deafening sounds, that rolled in tumultuous eddies, and awed and hushed the very soul. For myself, I might have feared and trembled, as did the earth; but I did not think of it. Indeed, I altogether forgot to be afraid, for while the lightning was flashing around and above me, and the thunder rolling along the angry sky, or breaking in the most deafening peals upon my ears, producing the stunning effect of the almost simultaneous discharge of a thousand pieces of artillery, a sort of inspiration seemed to seize upon every faculty of my soul, and I exulted in the view of nature in her most terrible majesty. A mighty spirit stirred within me, and I stood wrapped and amazed in contemplation of the splendid and sublime phenomenon—in beholding which I enjoyed emotions which were as irresistible as they will be impossible ever to be forgotten.

Ere long the rain began to abate its violence, and the retreating clouds gradually passed over. The muttering of the thunder became less and less distinct, and

finally it died away in low sullen growls, far off to the southern horizon.

To present an accurate picture of the passing scene is as impossible as to paint the rainbow, or to throw upon canvas the inimitable hues of a magnificent and gorgeous sunset, as seen from the valleys of the West, or, in yet greater beauty, from the mountains of what will ultimately be known as the Pacific States. I can not, therefore, believe for a moment that I have imparted to the reader those emotions and feelings wrought in my own breast.

The sergeant of the guard at length came round, and I was relieved from my post. Mrs. Thornton, who feels in an eminent degree strong emotions, when surveying aught in nature of terror or vastness, had been lying awake in our wagon, and enjoying a scene which, from being at first beautiful, had become too terrible to be aught but sublime. In her journal, she says: "The scene was sublime, and I could not but rejoice that I was here to witness it."

After the excitement occasioned by the scene had in some degree subsided, a sense of my own infinite nothingness and unworthiness possessed me. When I considered the Deity as careering upon the storm, and riding upon the wings of the wind, while the terrible lightnings seemed to struggle, that they might escape from his hand, and descend upon a guilty world, I was tempted to think, for the moment, that I was too insignificant, as compared with the immense objects that concern the Deity, and engage his attention, to receive any portion of his observant regard. Considering the subject, under the influence of emotions excited by such apprehensions, the language of David occurred to me.

“What is man that thou art mindful of him; and the son of man that thou visitest him?”

The morning dawned clear, cloudless, and peaceful, and the returning light showed no traces of the previous night's storm and tempest, except that nature seemed to have put on a robe more fresh and green, and to have assumed an aspect more smiling and lovely than ever, as she turned aside the curtains of darkness, and showed her pleasant face, covered with new charms, and glowing with radiant beauties. The green woods near which we were encamped were again vocal with happy choristers, whose ascending songs of joyful thanksgiving charmed the air; and whose gay plumage inspired a like delight. The wood-thrush, a hermit of the thick tangled forest, poured forth its wild, sweet notes, from the border of the stream, overshadowed by the dense foliage of boughs, so thick and dark, that the rays of the summer's sun seldom penetrated there. It appeared to exert its musical powers to the very utmost, and its song swelled up, as if to make its way to heaven through the thick overhanging leaves, and from a heart more than brimful of gladness. I listened to it with the most pleasurable sensations, and I must have been either more or less than human, not to have felt my mind tranquillized by its music, and my heart inspired with hope, and, at the same time, filled with gratitude to the great Creator who made the wood-thrush, and taught it to sing so delightfully upon my journey.

The gladdening rays of the sun soon dissipated the little vapor that in a few places slowly and dreamily floated along the surface of the ground, as the bright orb of day fully appeared above the line of hills and

the tops of the trees. A genial warmth filled the atmosphere, and the vernal breeze burdened and almost oppressed with the scent of flowers, slightly stirred the boughs and foliage, where sat a mocking-bird and his mate. He appeared to imitate every other bird of the wood with a brilliancy of execution the most surprising, since it not only equaled, but even excelled the notes of a thousand rivals, caroling their several tunes in a forest which, although far from being the most magnificent I have seen, yet excited admiration from the circumstance, in addition to its own merit, that the country was generally naked. Rich and mellow songs were poured forth from the little throat of the bird, with a wonderful and unequalled compass and modulation. He seemed to have an increased sense of pleasurable existence, and I could almost have persuaded myself that I saw his heart swelling with delight, and his eyes sparkling with pleasure, as he sang with all his might:

“ Brignal banks are fresh and fair,
And Greta woods are green.”

The humming-bird, likewise, was not wanting to give increased interest to the scene. Although he could not contribute any thing to the music of the feathered choir, the richness of his dress, as seen when his beautiful fairy wings were poised in the air, added a new charm to a scene already delightful to look upon. The sprightliness of his manners, also, was cheerful and animating, as he was seen to visit each blooming beauty; from whom, after peeping into her face with sparkling eyes, and on poised pinions, he stole a dewy kiss, and hied away on humming wing to another, with an incredible swiftness and vivacity; sometimes dis-

playing a gorgeous throat, the beauty and brilliancy of which baffles description, changing as it did from a fiery hue to the deepest velvet black; and then again exhibiting the upper part of his little body, so that the color changed, from every shade of green to purple, or deepened into black, or sobered into brown. He seemed not to fear our presence, but flew from flower to flower like the bee gathering honey, and after receiving the nectared tribute upon the end of his delicate tongue, hastened away to gather sweets from the next, while his brilliant plumage glittered in the sun.

To this concert of nature, and, as if to make it perfect, was added the well-known clamor of a flock of wild geese, that flew over, on their way to the plashy ponds and reedy lakes of the north. The peculiar and rough note of the prairie-hen was heard *cooing* along the hill-side, and the noisy frog boomed among the grassy shallows. These were the minor yet delightful parts in this concert of the woods and prairie, which caused me to lift up my heart in delighted thankfulness and gratitude to that beneficent Being who had thus given to nature a voice that echoed the outpourings of my own full soul.

The enthusiastic lover of nature, who often wanders abroad in the fields and woods in spring and in summer, and opens his breast that the pleasant air may breathe through his very soul, will readily appreciate and understand my feelings; and he will not mistake these emotions, which caused me to feel pleasure in the sounds of the goose, the prairie-hen, and the frog, for those of the Scythian who preferred the neighing of the horse to the song of Timotheus. I can truly adopt the language, and feel the spirit of J. A. LANGFORD:

- “If thou art sorrowful and sad,
And thought no comfort yields;
Go, leave the breathing world,
And ramble in the fields.
Bless'd nature will have sympathy
Both with thy sufferings and with thee.
- ‘Have friends proved false? doth fortune frown;
And poverty depress?
Ne'er, ne'er, with unavailing grief,
Increase thy wretchedness.
Go to the fields, and nature will
With pleasant thoughts thy bosom fill.
- “If thou hast seen thy cherished hopes
Like bubbles burst to air,
Ne'er let thy manly courage sink
In cowardly despair.
Go, list the lark's ethereal lay,
'Twill soothe thy gloomy thoughts away.
- “Go to the fields, and nature woo,
No matter what thy mood;
The light heart will be lighter made,
The sorrowful imbued
With joyous thoughts. The simplest flower
Has o'er the soul a magic power.”

The rain of the 26th. had caused the river to rise several feet, so that it seemed probable we should not be able to cross for some days. A meeting was held about nine o'clock to hear and decide upon the report of the committee. A man named E—, made use of violent language against our leader, Col. Russell, and the sub-captain, Mr. Jacob, a modest and amiable young man. E— had been disappointed in not being elected to the latter post. He finally moved the appointment of a committee to try the officers, when charged with neglect of duty, or improper treatment

of any of the party. The motion prevailed, whereupon the officers resigned. A few moments' reflection showed the evil consequences of permitting E— to control in any degree the company. The resolution was rescinded by a large majority, and the former officers re-elected by acclamation.

Mr. Grayson and others had gone out this morning to search for bee-trees. They came back with several bucketsful of honey. The hunters and fishermen returned unsuccessful. Upon the banks of the river were some indications of coal.—(Mercury at sunrise, 64°; at sunset, 64°.)

May 28.—In my admiration of nature on the day previous to this date, I did not forget to unite the *utile* with the *dulce*. My wife seemed too unwell to perform all the labor necessary in the preparation of our breakfast. This was, indeed, too great for her under circumstances of far better health. It was impossible to procure "help." I deemed it, therefore, my duty to say to her that I had no sort of objection to make myself useful as well as ornamental, and expressed the opinion that if she would not scold me for my blunders, I should in time become a very passable cook upon the road to Oregon.

The river having fallen more than fifteen inches during the night, the whole party after breakfast were desired to unite in the construction of large canoes, to be used, when lashed together, as a sort of raft, upon which to take our wagons over the stream. The call was not very generally responded to; nevertheless, a number of persons went. I sent my drivers, Albert and David, while I remained at camp to attend to other matters. Two large cotton-wood trees, about

four feet in diameter, were felled, from which two canoes, twenty-five feet in length, were commenced. It was intended to unite them, by means of cross timbers, so as to admit the wheels of the wagon into them; and then to attach lines to both ends of this "Blue River Rover," as it was called, and by pulling backward and forward, convey over all our wagons and goods.

A man belonging to one of the advanced companies, returned to us during the day, in search of some lost cattle. He reported that a child of Josiah Moore, an Oregon emigrant, from Missouri, had died on the day before. In crossing the river to us, he was thrown from his horse, and was for a time in great danger of drowning. We remained in camp during the day.—(Mercury at sunrise, 62°; at sunset, 80°.)

May 29.—Mrs. Keyes, the mother of Mrs. Reed, who had been for some time ill, died on the morning of this day. John Denton, an Englishman from Sheffield, busied himself in preparing a decent slab of stone to put at her head, and in carving upon it a suitable inscription. A humble grave was dug under the spreading boughs of a venerable oak, about sixty or seventy yards from the wayside, and thither her remains were followed by a silent, thoughtful, and solemn company of emigrants, who were thus admonished that they were indeed pilgrims, hastening to a land "from whose bourne no traveler returns." After obtaining permission from Mrs. Reed, I requested the Rev. J. A. Cornwall to preach upon the occasion. He delivered an impressive and eloquent sermon to us, as we sat around the grave, and under the green boughs of the spreading oak. The afflictive event was pointed

out to us as one that should impress our minds and hearts with the fact, that it was a matter of the highest importance to us to seek for another and "better country," where there is no sickness or death.

I had no acquaintance with the deceased. She had been, indeed, confined to her bed, when her son-in-law, Mr. Reed, was making his arrangements for the journey. She could not, however, bear the thought of remaining behind. A wagon had been arranged with reference to her comfort. She had been carried to it in her bed, and had there remained until her spirit returned to God who gave it, and her body was laid in its silent grave in the wilderness. I was informed that her departure was peaceful and full of hope. The inscription upon the grave-stone, and upon the tree above it, is as follows: "MRS. SARAH KEYES, DIED MAY 29, 1846: *Aged 70.*"

In the evening twilight, I turned aside from the noise and bustle of the camp, and retired to the new-made grave in the wilderness, to commune in spirit with the departed. My mind was naturally filled with reflections upon the evanescent nature of human existence in this world, and the vanity of all sublunary pursuits. I had often witnessed the approach of death; sometimes betraying his advance by the insidious attacks of consumption; and sometimes assailing his victim in a less questionable manner. I had seen the guileless infant, with the light of love and innocence upon its face, gradually fade away, like a beautiful cloud upon the sky melting into the dews of heaven, until vanishing from my sight. I had beheld the strong man, who had made this world all his trust, struggling violently with death, and had heard him exclaim, in agony, "*I will*

not die." And yet death relinquished not his tenacious grasp of his victim. The sound of the hammer and the plane have ceased for a moment, the ploughman has paused in the furrow, even the school-boy, with his books and satchel, has stood still, and the very atmosphere has seemed to assume a sort of melancholy tinge, as the tones of the bell have come slowly and solemnly upon the motionless air. At such a moment, I have exclaimed, "He is gone! but O, most merciful God, whither?" And then the very breathings of my thoughts have been hushed, as I paused, while my inmost nature seemed to expect a reply. But death in the wilderness—in the solitude of nature, and far from the busy abodes of men, seemed to have in it a more than usual solemnity.

CHAPTER IV.

THE JOURNEY FROM BLUE-EARTH RIVER TO CHIMNEY-ROCK.

May 30.

WE commenced crossing the river early in the afternoon. But the process being slow and difficult, we did not succeed in taking over more than nine wagons. The canoes which had been constructed were secured to the shore; after which we let the wagons down into them, by means of ropes, to which men held on behind, for the purpose of preventing the wagons from running down too fast.

The day was clear and warm. Many of the emigrants were indisposed, and a few of them I thought were a little ill-disposed. The former was probably caused by our having remained so long in the camp; the latter is perhaps to be referred to some acerbity of temper, which a journey of this sort in no wise sweetens.

May 31.—Sabbath.—The wagons having been all carried across, the animals were driven in, and caused to swim the stream. Although it may appear to have been in some sort a desecration of the Sabbath, we had no alternative. Colonel Russell labored hard and efficiently. I was up to my arm-pits in water several times. Many of the men were in like condition. A chilling wind commenced from the northwest about

4 o'clock, P.M.; and soon after dark, heavy masses of clouds rolled up, and the rain descended most copiously. We encamped on a high, rich, open prairie, about one mile from our place of crossing.

Many of the men came up shivering violently. The perpetual vexations and continued hard labor of the day, had kept the nerves of most of the men in a state of great irritability. Two drivers fought near the banks of the river, with fists at first, but with knives at last. They were separated without serious injury to either. Mr. Jacob suffered from a severe indisposition, caused by wet and cold.

I observed many large grape-vines growing upon the bottom. The western margin of the stream was lined with a heavy growth of walnut, oak, elm, poplar, cotton-wood, haw, and dog-wood.—(Mercury at sunrise, 64°; sunset, 44°.—Calm, but rainy.)

June 1.—We resumed our journey at about 8, A.M., and traveled fourteen miles over fine rolling prairie land, well covered with grass, and encamped in the afternoon on low ground, near a creek. The day was clear, but uncomfortably cool, with a raw wind from the northwest. The sudden change of the temperature, and the heavy and drenching rain of the previous night, were very distressing to the women and children, most of whom were very thinly clad, and ill-prepared to resist the effects of such sudden changes. The wind during the whole of the forenoon blew with the coldness of November.

The country over which we passed during the day, presented a landscape of unsurpassed loveliness. Springs of pure cold water gushed from the banks of small streams, or bubbled up in ravines. A few small

groves adorned the scene. The soil was very fertile, and covered with a heavy coat of green grass. The country was high and undulating, and had the appearance of being very healthy. The poverty of timber, however, I believe, would, notwithstanding its great natural beauty and fertility, prevent it from becoming a great agricultural and producing country.

We saw some birds at different times, but they were always upon the wing, and too distant to enable me to distinguish of what sort they were. I also saw some white flowers of the poppy family. At 4 o'clock, we arrived at a small tributary to the Blue River, which, after great labor, we crossed. We encamped upon the bottom, on the west side, to avoid ground upon which the cattle of many advanced companies had fed. Near the camp, were the graves of two children, the one with a cross over it, the other with a stone, bearing the simple inscription, "MAY 28, 1846."—(Mercury at sunrise, 46°; sunset, 57°.)

June 2.—Twenty wagons, including mine—all for Oregon, except Mr. Clark's—separated from the California wagons, and proceeded on in advance. The day was cool, and the way in many places very bad for short distances, being crossed by swails, the mud in which was so deep as to make it necessary to double teams. We traveled fifteen miles; and encamped about sundown upon a prairie, where we could not obtain wood for culinary purposes, nor any water, except from a shallow pond. We saw birds frequently during the day, but they were distant, and seemed shy, as though they had a knowledge of men. We also saw two Shawnee Indians (one of whom spoke English) on their way to Westport. To one of them Mrs.

Thornton gave a letter, to be left at the Post-office of that place, for Mrs. Browning, of Quincy, Illinois. Our road during the day led us over a smooth inclined plain, which was wet and marshy in some places.—(Mercury at sunrise, 48°; sunset, 61°.—Wind north-west.)

June 3.—We set off at 7 o'clock, and fears being entertained that the California company was making an effort to come up to us, and pass, we drove rapidly during the day, over a prairie which was generally level, and in some places muddy. We traveled twenty miles. The day was cool compared with the weather usual at this period in Illinois. The grass was very low and thin, the timber small and scrubby oaks, some of which were just beginning to bud, while others were as naked as in January. Birds and antelopes were seen during the day.—(Mercury at sunrise, 54°; sunset, 54°.—Wind, northeast.)

June 4.—Resumed our journey at 7 o'clock, and traveled twenty miles over an ascending prairie, occasionally dotted with one or more small trees, indicating the localities of springs. These prairies, I believed, would look very beautiful about July first. Day cool; vegetation about six weeks later than at Quincy.—(Mercury at sunrise, 48°; sunset, 55°.—Wind, north-west.)

June 5.—Our journey was again continued at 7 o'clock. The weather was very cool, and the air damp. We saw many wild roses along the way. We crossed the dry gravelly bed of several small water-courses, which in the winter and spring flow into the Kansas. I observed one or two species of *cacti*. I also observed a beautiful five-leaved flower of a crim-

son color, and growing upon a small vine. Its shape was that of the holly-hock, but it was more beautiful and brilliant.—(Mercury at sunrise, 44° ; sunset, 50° .—Wind, northwest.)

June 6.—Traveled all day, toward the Blue-Earth River, which was frequently in sight. The face of the country began to improve. The day was cool and clear; the country an open rolling prairie, with a rich soil, having a light coat of grass, and interspersed with small groups of oak-trees. We saw some of our former traveling companions, among whom were Messrs. Russell, West, and Kirquendall.—(Mercury at sunrise, 54° ; at sunset, 62° .—Wind, west.)

June 7.—*Sabbath.*—The company having determined to travel, we were obliged, with reluctance, again to submit, or else remain behind, and receive a visit, not exactly of ceremony, from Pawnee Indians, who, we had reason to believe, were “particularly thick” just about that place. These people infested the country, stealing horses and cattle from the emigrants, when not in sufficient force to attack them openly. After filling our kegs with water, and taking in a supply of wood, we left Little Blue-Earth about 10 o’clock, at a place where the Oregon road leaves that stream; and after traveling over a level prairie ridge, where were few plants except thistles, we encamped before sunset on a high piece of prairie, descending toward the west, where we could obtain neither wood nor water, except what we had brought. Our road had for some time led up, and generally along the Little Blue, which runs in a southeast direction. The water of the stream at that time was confined to a channel about thirty or forty feet wide but the bottom

lands presented the appearance of having been overflowed during the time of the spring freshets. The bottoms along that stream are generally very fertile, but the elevated prairies in the vicinity are sandy and barren. The day was clear but cool. We saw an antelope running with amazing fleetness and velocity. Many roses and other flowers contributed to add an interest to the way, and to beguile the tedium of our toils. We saw the Pawnee face for the first time. As the sun was about to set behind the hills, twenty-three warriors, mounted on horseback, and armed with bows and arrows, appeared upon the top of a distant eminence, between us and the declining sun. After reconnoitering our position for a few minutes, headed by their chief, they came sweeping down the slope at a quick charge. There was something in their appearance not exactly warlike, but as having rather the insolent bearing of confident robbers, whose eyes brighten with the sight of the spoil they already regarded as wrested from the hands of weak and defenseless emigrants. We armed ourselves with our rifles, and went out to meet them. This we ought not to have done. We should have remained behind our wagons, which would have served as a breast-work. We should then have made them signs to keep away, or at least to send forward no more than one of their number. However, the leader of our company did not think so; and we accordingly all went out. But the wary and observing chief of these roving robbers, seeing that we were likely to give them a reception very different from the one he had looked for, instantly altered his whole conduct and aspect. Seeing our determination and condition, though we were still

inferior to his strength, he instantly changed from the firm and cruel expression of a plundering savage to the bland and pleasant aspect of a friend. He made signs for our "big man," "captain," or "chief," and upon our pointing to one Rice Dunbar, they were immediately in each other's arms, locked in a most fraternal embrace.

A half-breed, wearing a new hat and a clean shirt, at length came forward, and in imperfect English, informed us that they were a buffalo hunting party, and that they had been unsuccessful. They looked much better than either the Kansas or the Shawnee Indians; but were very troublesome, insolent, and pertinacious in their alternate absolute demands, and begging solicitations for food.

Much has been said upon the subject of the character of the Indians of North America, which I am persuaded is very far from imparting correct opinions upon this subject. And in nothing touching them are there, in my opinion, such incorrect views very generally entertained, as those which relate to their heroism. The Indian will indeed smoke his pipe, sing his song, boast of his victories, or taunt and insult his tormentors, while burning in a slow fire; and he will perhaps seek to provoke his foes, by telling them that they are novices, and inexpert in the work of death; and that he has often tormented their warriors with far more ingenuity. When the war-club or the hatchet is raised above the head of a tortured captive, to inflict a fatal blow, his unblenching look evinces the same spirit which would enable him to smoke his pipe, if devouring flames were seizing upon his vitals. This, however, is not that Spartan courage for which they have received so much unmerited praise; and which, if they pos-

sessed it, would enable a handful of them to make a stand against myriads at another Thermopylæ. But the bare suggestion of such a thought is ludicrous. It is a harsh and stoical insensibility, unworthy of being ranked among the virtues of civilization. Instead of being a patriotic courage, which causes us to respect the unhappy captive, it is an unfeeling, savage, and brutal insensibility ; to confound which with true heroism, would be to break down the distinctions between virtue and vice, and to confound all in chaotic confusion. No man in his senses ever thought of dignifying with the name of heroism the conduct of the Spartan boy, who, having stolen the fox, and concealed it under his clothing, permitted it to eat into his bowels, rather than betray the theft. And yet, the conduct of the Indian at the stake, and that of the boy with the fox, are actions resulting from the same sort of training, every part and every step of which tends to inspire shame and contempt for the slightest exhibition of a sense of pain and suffering, under such circumstances. The Spartan's training proceeded farther, and enabled him to go to the straits of Thermopylæ, and place his body as a bulwark between his country and its overwhelming enemies. An Indian would have considered this an egregious instance of folly. He would have fought, without doubt, had he been with the millions, and would bravely have scalped and mangled the unconscious dead, or tortured the wounded and captives. But, to say that for the sake of his country, a North American Indian would have associated his destiny with the three hundred Spartans, is what no writer asserts who prefers facts to fiction ; and what no one, certainly, will believe, who is not very credulous.

Indians are generally cowards; and they will seldom fight without a decided advantage in numbers, weapons, or position. In short, the virtues usually attributed to them are figments of the brain, and have no existence in fact. Virtue is a plant which does not grow in the coldness and darkness of barbarism, but in the genial warmth and benignant light of civilization and Christianity.—(Mercury at sunrise, 54°; sunset, 65°.—Wind, west.)

June 8.—We resumed our journey at about 7 o'clock, A.M. Mrs. Thornton was near putting her foot on a spotted viper, soon after setting out. I shot it with my rifle. After traveling for some hours over a rough and broken country, showing in the distance many high sand-hills, we arrived at a succession of these hills, running parallel with the Nebraska, and a few miles from it, and known as the Coast of the Nebraska. These hills were thinly covered with the usual grasses of the country, into which the wind had blown loose sand. This ridge showed a marked change of vegetation, and in nothing more than in the *cacti*, several of which were found flourishing in the sandy sides of these hills. We passed through this ridge, and descended into a plain or bottom, lying between the coast or bluff, and the river. This low land is a flat prairie, very similar in its general features to that upon which is situated Marion City, known in Missouri as being a little fishy in the spring, and somewhat in the grass in summer. Saline and alkaline efflorescences whitened the ground in low situations. Such places as were at all muddy presented the appearance of partially leached ashes, and emitted an odor greatly resembling that of lye. Perhaps the odor which would be observed

upon pouring water upon one part unslaked lime and three parts ashes would be more like it.

We arrived at the Nebraska at 2 o'clock, P.M., and we then proceeded up it till about 5 o'clock, when we encamped at a place that had recently been occupied by an advance party. The Indian name of this river is *Nebraska*, or Shallow River. And certainly, no name was ever more appropriately descriptive than this. The soil was generally rich, notwithstanding it presented in many places those peculiar appearances and odors already mentioned. The timber, which consists of poplar, elm, and hackberry, is confined to the margin of the stream and its islands.

We regarded that afternoon as bringing us to an important point in our journey. We had arrived at the great Nebraska; and although now, at the time of my writing out these notes, it appears to be no more than the commencement of the journey, yet then it seemed far otherwise.

The geological formation of the country over which we had passed, was generally lime and sandstone, covered usually with a deposit of sand and gravel.

Our encampment was opposite Grand Island, in the Platte. This island is about fifty-two miles long, with an average breadth of one mile and three-fourths. It is well wooded, and has a fertile soil; and the annual rise of the stream does not overflow it. There are many circumstances which unite to make this a suitable point for the establishment of a military post in the lower Nebraska, if it be, indeed, an object with our government to keep open a communication with the future PACIFIC STATES.

The establishment of a military post at this point,

and at others along the way leading across the continent to the Pacific, so as to form a cordon, is, next to a graded wagon-road from Independence, Missouri, with facilities for crossing some of the principal streams, the most important in its magnitude, as affording protection and assistance to emigrants. These points should be so selected as to combine the requisites to their being used to keep the Indians in check; so that emigrants might journey in safety, and settlers establish themselves in the vicinity as cultivators of the soil. These settlements would in a short time supply both the post, and Oregon and California emigrants, with fresh provisions. The soldiers might be employed in either transporting the mail, or in protecting those who would. This would secure a more rapid, easy, and less perilous communication, between the settlements west of the Rocky Mountains and those east of them, which, by inspiring confidence, would vastly increase the number of emigrants. Considered, then, purely as a political measure, tending to a rapid colonization of our possessions upon the Pacific, the establishment of a cordon of military posts is important and necessary.—(Mercury at sunrise, 54° ; sunset, 68° .—Wind, northwest.)

June 9.—We traveled about fifteen miles, and then encamped. The day was clear, but a high wind from the northwest during the forenoon increased to almost a gale, and made our traveling rather uncomfortable in consequence of the cold. The face of the country was not materially different from that over which we had passed the day previous. Wood and water abundant.

Our road during the day led us along the bank of

the Nebraska, the general course of which is from west to east. After leaving the head of Grand Island, it expanded into a broad and shallow stream of two miles in width, and flowing over a bed of loose and shifting sands, that so mixed with and discolored the water as to cause it very much to resemble the Missouri. This stream is wholly useless for all the purposes of navigation.—(Mercury at sunrise, 52°; sunset, 65°. Calm.)

June 10.—We continued our course, ten hours over a good road, and encamped about six o'clock near the Nebraska. The day was clear and pleasant; water sufficiently abundant. We saw several antelopes and elks in the distance. The country was generally level and well supplied with grass, but the timber was very deficient, except in some places near the the margin of the river.—(Mercury at sunrise, 52°; sunset, 68°.)

June 11.—We traveled fifteen miles over a country in no respect different from that of the day previous. On both days we had remarked many places covered with an efflorescence of alkaline and other salts. We saw quite a variety of *cacti*. Weather clear and dry; roads level and hard; water and grass abundant; wood scarce; and some of the company fatigued and fretful.—(Mercury at sunrise, 58°; sunset, 66°.)

June 12.—The morning was clear, and almost cold enough for frost. We resumed our journey, and traveled up the Nebraska, along a hard and level road which was confined to the open prairie bottom land. The country on both sides is level and well covered with grass, and runs back from three to ten miles, and then rises in naked and barren hills. We saw a herd of about a hundred bison feeding in the distance to our

left. They seemed to be very much scattered. A large bull came toward us, and after looking curiously for some time, resumed his onward movement, and crossed the road about 140 yards in our rear; when being shot at he trotted off and shook his head as though he would have said, "I am not much afraid of your powder."

There was a scarcity of wood except in a few places immediately on the margin of the stream, where were occasional groups of quaking asp. Upon the opposite side it appeared to be more abundant. The soil, for the most part, was a black vegetable loam, exhibiting in many low situations where the water had stood for a time and then been evaporated, a mixed substance upon the surface, which I took to be principally impure carbonate of potash.

In the afternoon of this day I was much surprised by seeing something upon the ground which appeared to be incased in a delicate membrane, moving and worming itself about. At length the membranous substance broke, and a creature, which I took to be a young viper, twisted and wriggled itself into the world, lifting up a considerable portion of its body, and gaping very wide, and at the same time giving the most unequivocal evidence of its at least possessing the spirit of a viper. At length I discovered the parent snake, as I supposed. Its looks seemed to inform me that it bore venom in its fangs, and that it would therefore be dangerous to approach. Its eyes were bright and fiery; its head flat, broad, and covered with ten regularly formed scales; and the tongue with which it menaced and defied me was long and cloven. On either side of the body was a yellow stripe extending from the base of the cranium

to the tail. Another yellow stripe lying between two parallel lines of a darker color, extended along the spine. Upon shooting the beast I found it to measure twenty inches in length.

Mr. Hall came to me after terminating our journey for the day, and the camp fires had been kindled, and demanded to know if I would not like to see his "prairie wolves," as he called his twin boys.

Upon arriving at the tent, I found the too happy mother sitting in a chair, with a healthy looking child upon each arm, and they were both "doing as well as could be expected." Her tone, manner, and actions were proud, happy, womanized, and, if I may be permitted to coin another word, maternalized. Her aspect was soft, gentle, and mild; and she was watching her breathing beauties in a manner that showed how much her heart was filled with the strongest affection for the little helpless babes that Heaven had given to her. She seemed unable to take her eyes away from their tiny little faces, even while asking me, with a sort of provoking smile, whether I would not like to borrow one of them; and how I imagined poor people did, who had no babies.—(Mercury at sunrise, 50°; sunset, 65°.)

June 13.—We resumed our journey about 7 o'clock; and at 1 o'clock came up with thirty wagons and a great number of cattle from that portion of Missouri known as "The Platte Country." They were a part of a company consisting originally of sixty wagons that had been ahead of us, the proprietors of which, not being able to agree, had finally consented to disagree, and to separate in peace. We found among them Mr J. Baker and Mr. David Butterfield with their families. These gentlemen had been requested by the Californi-

ans to leave their company at Wokaruska, the morning following the afternoon upon which Ex-governor Boggs and myself were invited to join them. The reason assigned for this inhospitable and selfish proceeding was that these gentlemen, having about 140 head of loose cattle, besides about five ox teams, would necessarily be a burthen to the company. This, however, could not have been the case, since they had a number of drivers sufficient for both their teams and their loose stock. The true cause, perhaps, was that they had declined killing their calves to sell to the company.

About 4 o'clock we turned to the right from the road, and directed our course to the river, where we arrived a little before sunset; and encamped upon a broad fertile plain, having a heavy coat of grass, and well watered by a small stream running through the midst of it, and by the Nebraska rolling its broad and shallow sheet along its western margin. A grove of quaking asp graced an island, but none grew where we were, and in consequence we used the *bois de vache*, this last resort of the traveler when drift-wood, quaking asp, and dead willows, are not to be had to boil his tea-kettle or to cook his meat. As this was frequently our only means of making fires in many places in the subsequent part of our journey, it may not be improper to observe that it is the dry deposit of the bison, which furnishes to the traveler across the continent to the Pacific a very good substitute for wood, until he gets west of the Rocky Mountains; as does the camel the Arabian when traversing his native deserts. The sod or earth is removed from a place about one foot wide, three feet long, and eight inches deep. Into this excavation the *bois de vache* and a little dry grass, or a

few weeds, is placed, to which a match is applied, and in a short time fire sufficient for culinary purposes is produced; the sides of the excavation serving to support the sides of the vessel. The pit, likewise, by keeping the fuel in a close body and sheltered from the wind, so that it can not be blown away, economizes it. The same sort of pit is used when other sorts of fuel are scarce, and for the same reasons.

The day was clear and warm; the roads dry and hard, and the general aspect of the country more interesting than that over which we had been several days traveling, although more broken and characterized by a much less fertile soil. Naked and rocky hills bounded the country in the distance, on both sides of the Platte. There were a few groups of timber, and these were mostly quaking asp, confined to the margin and islands of the stream.

Many antelopes were feeding upon the plains, without having observed us. One of them was wounded by a hunter who succeeded in taking it at length, by means of my grayhound, Prince Darco. This animal is usually very wild and difficult to take. I know of nothing so fleet except a race-horse, which can come up with it on level ground, and a grayhound, that can come up with it on any ground that is open. Four wagons left us in consequence of our having turned away from the road; to wit, two of Mr. Crump's, one of Mr. Clark's, and one of a German, who had an unspellable name; and it was to me an unspeakable one also, though Greaser makes a near approach to the sound of a name I could not pronounce with my tongue, though greased ever so much. My German fellow traveler attached himself to the company we had over-

taken at 1 o'clock. The other two proceeded forward and attached themselves to a company of seven wagons that had separated from a company in the rear.

Large herds of bison were scattered over various portions of the country on both sides of the river. One of the emigrants in the company with which we came up in the afternoon, and who encamped upon the plain, and in sight of us, very kindly presented to me some choice bison flesh. Having toiled hard all day I did the most ample justice to ribs and steaks, in all the varieties and changes which a prairie cook may make in roasts, and broils, and fries, and stews, and bakes; so that between cooking bison meat and eating it, I continued to pass away the evening very comfortably, and I may add, even intellectually; for the mosquitoes, which had been very assiduous in their attentions for some evenings, were so remarkably agreeable upon this, that it required some skill and ingenuity to keep them out of the mouth which I desired to fill with bison meat. But the cold night air, at length, settled these troublesome little intruders, and left us undisturbed once more to our repast.

Messrs. Lard and Van Bibber having left us the day before, to hunt bison, and not having returned, much anxiety was felt lest they had fallen into the hands of the treacherous and cruel savages who infested the country.—(Mercury at sunrise, 52°; sunset, 71°.)

June 14.—Sabbath.—The morning was clear and cloudless, and at first quite cool, but about 8 o'clock the sun appeared to acquire new strength, and the air became warm and pleasant. Many of our faithful oxen were lying down upon the grass quietly chewing the cud, as if they knew that the day was one of rest.

My poor fellow Dake, however, came up and stood about, seeming not to realize that we proposed to spend the Sabbath in camp, and judging by his actions he was evidently at a loss to know why he was not to be yoked. The weary animals, like ourselves, greatly needed rest. I was convinced, from my previous experience, that the emigrants would travel further in a month, by permitting their cattle to rest upon the Sabbath; and my subsequent experience but tended to confirm the opinion. I am persuaded, therefore, aside from moral obligation, that emigrants should carefully observe the Sabbath as a day of rest. The end can not be attained by remaining in camp as many days in the month as there are weeks in it. The repose to be permanently useful must be periodical. To affirm otherwise would be as unreasonable as would be the affirmation that a man might with impunity omit to take his nightly rest, provided he was sure to sleep as many hours at the close of each month as he would have done had he slept the usual time each night. Nor am I singular in these opinions; they are corroborated by the testimony all the most thinking and observant travelers. Examinations before the British House of Commons also conclusively prove, if human testimony is worth any thing, that oxen and horses live longer and perform more labor when permitted to rest one day in seven.

The rest of the Sabbath would likewise greatly benefit the weary emigrant himself; and enable nature to restore the vital energies exhausted by the toils and fatigue of travel. A careful examination before a public institution in the city of London, employing about 2000 laborers, established beyond a doubt that

men who rest upon the Sabbath perform more work, and perform it better, than the same men do when employed every day. Many of the planters of the West Indies formerly worked their slaves upon the Sabbath, but at length abandoned it, because it was less productive. But aside from this, the law of God is most explicit upon the subject, "Remember the Sabbath day to keep it holy." Nor will individuals or a community, who habitually disregard the Sabbath, be blessed of God in their labors. France, when the Lord's day was abolished by public enactment, became an example of the truth of this affirmation. The history of ancient Israel, of western Europe, and that of the New England States are full of the most convincing and overwhelming proofs that social order and the supremacy of the law are maintained to an extent corresponding with the sacred observance of the Sabbath.

Although our cattle rested, the most of our people did not. The men went out to shoot bison, and the greater number of women were employed in washing.

The Rev. Mr. Cornwall had made an appointment to preach at an encampment of emigrants, about one mile and a half distant; and we were about to set off, when a messenger arrived, desiring me to go over for the purpose of amputating a boy's leg, that had been fractured below the knee, and also above it. We went over, and upon examination of the limb, gangrene was found to have commenced about the wound made below the knee, by a protrusion of the fractured bone. The friends of the lad had sent back to the California company for Mr. Edwin Bryant, who had, I believe, in the early part of his life, studied medicine, and per-

haps anatomy and surgery, but had never practiced professionally. I had read books upon these subjects, for the sake of general information, and in connection with medical jurisprudence, which constituted part of my studies as a lawyer. But I had not so much as seen a limb amputated. I declined amputating the limb, until Mr. Bryant should have had time to come up. There was a cattle-driver in camp, who had been several years a servant in a French hospital, and had frequently been present when limbs were taken off. He commenced making preparations for the work. Butcher knives and whet-stones were soon in requisition. There was not a surgical instrument of any kind in either camp. Laudanum was given to the boy repeatedly without any effect, and he was taken from the wagon, and his body so bound to a shoe-box that his limbs did not rest upon it. The operator had just commenced operation immediately above the lower fracture, that is to say, about three inches below the knee, although I advised him to take it off above the upper fracture. About this time Mr. Bryant arrived, but declined to operate. He, however, conversed with me, and concurred with me in the opinion that it should be amputated, if at all, above the upper fracture. But our surgeon proceeded, until he had completed the incision in the flesh to the bone, all the way round, when a very offensive matter having followed the knife, my worst fears were realized, and the operator was at length convinced. A tourniquet was then applied above the upper fracture, and the operation was renewed. The boy bore his sufferings with the most wonderful fortitude and heroism. He seemed scarcely to move a muscle. A deathlike paleness

would sometimes cover his face, and there can not be a doubt that the pain was most intense ; but, instead of groaning, he would use some word of encouragement to the almost shrinking operator, or some expression of comfort to his afflicted friends. It was only when the person who held the phial of the spirits of camphor to his nostrils, chanced to remove it, in his eagerness to watch the operation, that the boy manifested any extraordinary degree of suffering. Then his lips would become bloodless, and he would exclaim, while he eagerly sought with his hands to restore the phial, " Oh ! no, oh ! no, let me have it to my nose."

The limb was at length severed, the arteries were secured, and the flap brought down, in one hour and forty-five minutes from the time the incision was made in the lower part of the limb. I had frequently been compelled to retire from the painful and most afflictive spectacle. But at the time when the whole work was completed, I was present, and observing that he was much exhausted, I asked him in a soothing tone and manner if he was suffering much pain. He clasped his hands, and partially raising them, exclaimed, " O, yes, I am suffering. I am suffering—so much." His lips quivered, his eyeballs gradually rolled back, and his spirit was gone.

Preaching was omitted in consequence of the time being thus occupied. I then returned to our own encampment with Mr. Cornwall, taking with me Mr. Bryant, to receive such hospitalities as an emigrant might be able to offer. Mrs. Thornton having learned that Mr. Bryant had arrived at the camp of our neighbors upon the plain, and judging from the relations of friendship existing between us that I would bring him

home with me, and anxious, moreover, to do whatever she believed would please me and afford me an agreeable surprise, had prepared an excellent supper of stewed bison and antelope flesh, which she had arranged upon a neat white cloth, spread in the open air upon a grass plot, and around which she had contrived to gather, I know not how, many little things to please the fancy.

All the company had, without much ceremony, been invited to attend a wedding, at the tent of Mr. Lard, at 9 o'clock that evening. We accordingly gathered round the altar, where we found the Rev. J. A. Cornwall ready to act as officiating priest, and Miss Lard and her affianced, Mootrey by name, as victims to be offered upon it. The bride was arrayed in a very decent but gay-looking dress. I was not sufficiently near to determine what were the materials of which it was made. The groom had on his best, and something more. Some of the young women were dressed with a tolerable degree of taste and even elegance. There were no long beards, dirty hands, begrimed faces, soiled linen, or ragged pantaloons; and all looked as happy as the occasion demanded. Indeed, at that very time there were four other persons present who expected to be married in a few days.

I can not say that I much approve of a woman marrying upon the road. It looks so much like making a sort of a hop, skip, and jump into matrimony, without knowing what her feet will come down upon, or whether they may not be wounded and bruised.

The little sufferer before referred to, was buried in the night, and the silent and sad procession made a strange and affecting contrast, as it proceeded slowly,

by the light of torches, to that lonely grave so hastily dug in the wilderness.

Strange as it may seem, that same evening another interesting event transpired—the birth of a child, in another company, that was encamped upon the plain: so that the great epochs of life were all represented at nearly the same period of time.

June 15.—We resumed our journey, and traveled fifteen miles over a road and country very much like that of the preceding day: the weather being clear and moderately warm.—(Mercury at sunrise, 52°; sunset, 74°.)

June 16.—We met a company of men on mules from Oregon City, which place they left March 1st, for Independence, Missouri. Some of them had suffered in their faces from the effects of frost, in crossing the mountains. They gave us a favorable report of the country. They stated likewise that they had seen few Indians, but a great number of bison, and that they had met 750 wagons, the most of which were going to Oregon, some, however, to California. Four persons with whom they had originally started from Oregon City, had remained at Fort Laramie, in consequence of illness. We encamped at the first ford of the south fork of the Nebraska, where we found one company consisting of twenty-nine wagons, and another of eight, which, by being there before us, acquired the right of first passing over. We halted about sunset, and were again obliged to resort to *bois de vache*, not being able to procure wood.

We observed on this day as also on the day before, at the distance of about half a mile to our left, some fifteen or twenty hills of about one hundred feet high, which seemed to rise out of the plain, which I was

induced, from the circumstance of their being white, to believe were composed of chalk, limestone, or perhaps marble. I had no opportunity, however, for inspecting them.

We saw this day a multitude of bison. They seemed almost to cover the country in some places. The dark rolling masses, even in the distance, made a low, dull, rumbling sound, like an approaching earthquake—such was the rattling of their hoofs and horns. The bulls were rolling in the dust, and turning over and over from side to side; or, gathered in little groups, were engaged in obstinate combat; sometimes so intently as not to discover the hunter, until the sharp crack of the rifle was heard, and the deadly bullet received. Bisons constitute the poetry and Indians the romance of a life upon these vast prairies. Hunters, trappers, voyageurs, or emigrants, when they are in the bison country, relieve the monotony of the day's toil by the excitement of the chase. An immense herd extends over the plain, perhaps, for several miles round, in dense masses. The fiery hunter dashes in among them, upon a trained horse, as fiery as himself, and as keen for the sport. The dense masses open right and left before him, for he is in eager pursuit of a young cow, that finally receives his shot and falls. The rest of the herd sweeps on like a torrent; and the hunter reloads as he pursues the flying multitude; and his gallant steed, upon whose neck the rein lies loose and flowing, whose eyes flash fire and whose extended nostrils and open mouth exhibit his eagerness for the chase, soon brings him alongside of another fat cow—for he has been so trained that he knows which animal to select, as well the master he so proudly bears into

the midst of the retreating herd. The observer upon a hill so far distant that he can not hear the crack of the rifle, sees the smoke curl away from its muzzle, and knows that another noble animal is leveled with the dust. The hunter having killed as many as he wants, dismounts from his panting steed, whose sides are dripping with foam; and having fastened the bridle to the horns of the yet bleeding beast, proceeds to take from it the ribs and a few choice parts, with which he returns to his companions, leaving the greater part for the wolves to feast upon at their leisure.

Then, after the camp fires are lighted, there comes on the roasting of ribs and *boudins*, the *chef d'oeuvre* of all who know how to appreciate good eating in the great prairie wilderness. Delicate pieces are cooked in appropriate vessels, or placed on sticks around the fire, by the noisy emigrant, hunter, or trapper, whom the very scent of choice fresh meat now makes garrulous. Stale anecdotes are retailed—puns, good, bad, or indifferent, are perpetrated; all kind of jokes and jests are cracked; or, it may be, veritable stories are related of a life full of startling adventure and the most thrilling incident. And thus if the weather be pleasant, and there is not an enemy to fear, the night is sometimes whiled away in merry conviviality and social cheer around the watch-fire of the camp. I say *watch-fire*, for although an enemy may not be supposed to be near, yet the emigrant should never forget that Indians are very uncertain in their movements, and as treacherous as tigers; and, that while he is enjoying himself, he may be much nearer than he imagines to becoming the hero of a tragedy. If, therefore, he have no particular taste for that sort of celebrity, he would do

well to be upon his guard even during his *medicine* nights.

Road-hunters do not hesitate to tell very many marvelous stories of their respective adventures—things they have actually seen; or, what is the same thing, they certainly will see.

Lansford W. Hastings, who, if an opinion may be formed of him from the many untruths contained in his "EMIGRANT'S GUIDE TO OREGON AND CALIFORNIA," is the Baron Munchausen of travelers in these countries, says, at page 8 of his book, "Having been a few days among the buffalo" (they are not buffalo, but bison), "and their horses having become accustomed to these terrific scenes, even the '*green-horn*' is enabled not only to kill the buffalo with expertness, but he is also *frequently seen driving them to the encampment, with as much indifference as he used formerly to drive his domestic cattle about his own fields, in the land of his nativity.* Giving the buffalo rapid chase for a few minutes, they become so fatigued and completely exhausted that they are driven from place to place with as little difficulty as our common cattle. Both the grown buffalo and the calves are *very frequently* driven in this manner to the *encampment* and slaughtered."

It can not be necessary to affirm that no respectable writer will make such an assertion, and that no man of truth will affirm that the statement is consistent with fact.—(Mercury, at sunrise, 57°; sunset, 74°.)

June 17.—Our party unanimously determined to continue our route up the river in search of a new ford, instead of remaining until the companies before us had crossed. We resumed our journey in the morning, about 7 o'clock, and traveled about twenty

miles, when we encamped for the night, three miles from the river, upon a very unpromising looking ridge, where, however, we had an abundance of grass and water. A dead and prostrate cedar furnished us with a supply of fuel. The day was clear and comfortably warm; and the face of the country, especially two or three miles away from the river, was dreary in its aspect, and barren and repulsive in its appearance. The mosquitoes were very troublesome until about 9 o'clock, when the cold night air paralyzed them. We saw several species of *cactus* in bloom during the day. The bloom upon some of them was of a beautiful straw-color, while others were marked by a lively, fresh pink. We saw likewise a great number of bison upon both sides of the Nebraska. Some were in large herds—some were in small companies—and here and there might be seen a single one, by himself. He was, perhaps, a gloomy, disappointed individual, ill used or neglected by his kind.

We saw during the day several bison wallows. These we saw every day after entering the bison country. But on this day, a greater number than usual were seen. The bison seemed to be fond of rolling over in loose earth or in mud, like a hog. And they have certain places which they frequent for this purpose, so that they often make quite a hole in time, by each one carrying away in his long woolly hair a part of the soil. For the same reason, whatever that may be, they frequent high banks of soft earth, and work their horns into it, and their heads against it, until the long wool about them becomes so filled with sand and earth, that a rifle ball will not pierce it. I know not the reason of this propensity, but I have con-

jectured that it had its origin in an irritation of the skin; or, perhaps it is an effort to get off their winter covering.—(Mercury at sunrise, 64°; sunset, 79°.)

June 18.—We resumed our journey in search of a ford, Mr. Hall, however, affirming that it was “to head the Nebraska.” At 10 o’clock A.M., we arrived at a place, where, upon examination, it was believed the receding of the waters would enable us to ford on the following day. It was therefore determined to remain in camp. The day was warm and clear. The road over which we passed was generally quite level and hard, and there was an abundance of good grass upon the plain, on the side of the river upon which we had pitched our tents. The hills came down to the river on the opposite side; showing, however, a break or opening through a narrow valley into the country in the rear and westward.

Mrs. Thornton and myself were quite unwell. She appeared to be in great danger of sinking under the fatigues and exposure incident to the journey.

In the evening, the Rev. J. A. Cornwall married Mr. Morgan Savage to Miss Dunbar, and Mr. Henry Croiyers to Miss Mary Hall.—(Mercury at sunrise, 58°; sunset, 72°.)

June 19.—In the morning, a very black cloud formed in the northwest, along which the lightning forked, portending for some time a severe storm. It passed away, however, in a short time; after which a brilliant bow appeared.

The wagon beds were raised about ten inches, by putting blocks under them, for the purpose of rendering them in some measure water-proof. We at length commenced crossing the river, which was here about

a mile and a half wide ; but it was necessary to proceed diagonally, so that the actual distance across became two miles. All was finally conveyed over without any material accident. It became necessary to take some of the dogs into the wagons to prevent them from drowning. We encamped upon the west side, where there was much sand and gravel, little grass, many rattlesnakes, and lizards without number.—(Mercury at sunrise, 63° ; sunset, 71° .)

June 20.—Mrs. Thornton became at length so ill that she could with difficulty leave her bed, although her accustomed energy of purpose induced her still to undertake services for which her strength and health were manifestly unequal.

I have already remarked that the south branch of the Nebraska, at the place at which we crossed it, was one mile and a half wide. I omitted, however, to observe that it had a quicksand bottom, and that it was necessary therefore to avoid stopping the teams in the river, because when this was done, the wagons immediately commenced sinking.

From the observations I made, at different places along this stream, and judging likewise from all that I was able to learn from others, this is one of the characteristics of the stream, to its junction with the north branch, which Colonel Fremont places in latitude 41° , $5'$, $5''$, and longitude, by chronometer and lunar distances, 100° , $49'$, $43''$, and thence to its junction with the Missouri, distant three hundred and fifteen miles, and which, according to the same gentleman, is in latitude 41° , $8'$, $24''$, north, and longitude 95° , $20'$, west.

The water is yellow and muddy, in consequence of the limestone and marly formation of a portion of the

country through which it flows. Mr. John Torrey, in the preface to his catalogue of plants, collected by Colonel Fremont, in his expedition to the Rocky Mountains, says, "The valley of this river (the Nebraska) from its mouth to the great forks, is about four miles broad and three hundred and fifteen miles long. It is rich, well timbered, and covered with luxuriant grasses. The purple *liatris scariosa*, and several asters, were here conspicuous features of vegetation. I was pleased to recognize among the specimens collected near the forks, the fine large-flowered *Asclepias* that I described many years ago, in my account of James' Rocky Mountain plants, under the name of *A. speciosa*, and which Mr. Geyer also found in Nicollet's expedition. It seems to be the plant subsequently described and figured by Sir W. Hooker, under the name of *A. douglassii*."

The morning was cool and cloudless, and the atmosphere in the distance among the hills appeared to be smoky, rendering it probable that the Indians had permitted fire to get out. As we were preparing to "catch up," a cloud of dust was seen rising in the distance upon the plain on the right bank of the river. It was soon ascertained that a vast herd of bisons were coming to water in dense masses down from the plains and the hills beyond. The most of them, however, scented us, or at length saw us, and turned so as ultimately to reach the stream some distance lower down. Yet some of them were not to be thus balked, and came boldly down to the watering, but there was a good mile and a half between them and our rifles.

I have omitted to remark that we every day had a "noon halt" of about one hour for the purpose of re-

freshing the cattle with water and grass, where they were to be had, and at least to rest them and to take a little food ourselves. And I will now mention that we continued to do this where and when it was practicable, until upon a subsequent portion of our journey it became necessary to confine ourselves to a very small allowance of food.

We resumed our journey from the place where we crossed the south branch of the Nebraska, about 7 o'clock A.M., and pursued our way up a deep and dry channel, down which had swept the torrents from the hills and plains above. After traveling about three miles we reached a high, open, and rolling, or rather hilly prairie, presenting a very desolate and forbidding aspect. Much of the way was sandy, and in some places we saw immense numbers of lizards. We traveled twenty miles, and encamped about sunset on the north branch of the Nebraska. During the afternoon I saw a plant growing very abundantly, which in many respects resembled buckwheat. It was about one foot high. The stems on which the leaves grew, started out from a common stalk near the ground, and spread out. The flowers were in large clusters upon a stalk, shooting up from the center, and some of them of a straw-color, while others were pink, and some white. Many persons in camp were quite unwell, and so many of them had been so during the previous ten days, that it was suspected we had been traveling over an unhealthy region.

The water of the north branch of the Nebraska was more discolored than even that of the south branch. Indeed, it appeared to be loaded with rolling sands, as the Missouri is with mud. I observed in the distance

hills which presented the appearance of strata of marl, not unlike the white chalky or marly looking hills mentioned as having been seen on the east side of the stream; and it is from formations of this character, probably, that the Nebraska derives its discoloration. I have no means of determining the distance from this camp to the junction of the two streams. Both are broad, shallow, muddy, and unnavigable. The land between the streams at their junction, is a low, fertile prairie extending eighteen miles west, where the hills come down to it, at a place at which it is five and a half miles wide. The soil on both sides is sufficiently fertile, tolerably well supplied with grass, but almost wholly destitute of timber. The low lands in many places show a white efflorescence of salt; and the country in the prospect is broken, barren, and naked. Herds of bisons frequent many portions of the region; and savages, cruel, treacherous, and cunning, hang upon the rear of these roving bands, or hover around the emigrant's encampment, at night, like wolves prowling about the fold of the flock.

The main stream immediately below the union of the two principal branches, was measured by Colonel Fremont, and found to be 5350 feet wide. There are said to be many large islands in the main stream, well supplied with timber, having a good soil, and the most of them above the annual rise. There is no timber upon the bottom lands on each side of the main stream, except a few groves near the river. The bottoms are generally high, and not very well supplied with grass, while other portions, which are low, and probably overflow every spring, have an abundance of the most healthy and delicious food for cattle. The river is

generally three-fourths of a mile wide, although in many places it is much more; and in its general appearance and characteristics, if we except its depth, it resembles the Missouri so "reeking rich" with mud.

It is probable that no part of the valley through which it flows affords timber sufficient to sustain any thing like an extensive settlement. A settlement and military post could be established with advantage at Grand Island, but it is not probable that it could be done at any other locality below the encampment of this date.—(Mercury at sunrise, 65°; sunset, 71°.)

June 21.—Sabbath.—We traveled over the most dreary country we had previously seen. The loose and hot sands were blown about in a manner the most distressing to the mouth, nostrils, eyes, and ears. Toward the close of the afternoon, nature wore a more inviting and pleasing aspect. We found good grass for the cattle, and an abundance of drift-wood for culinary purposes.

The day had been clear and hot; and although the winds were high, yet they were as warm as though they had become heated by passing over a sandy region. At sunset they died away, and there seemed not to be even a zephyr to ripple the smooth surface of the stream. A bank of dark clouds began before night to be heaped up in the west. In about two hours they gradually rose, the front leading the way toward the east, until the heaviest and darkest masses appeared to be over our heads; when the most tremendous winds burst in a moment upon the stillness, followed almost immediately by flashes of lightning that, for the time, blasted the sight, crashes of thunder that deafened the ears, and torrents of rain that deluged the hills with

a flood descending in roaring and foaming torrents, that threatened to submerge the plain below. During the space of half an hour the clouds hurled their red-hot thunderbolts along the sky, and so thickly through the atmosphere, that it presented a continued and lurid glare of light, which gave a fierce and appalling aspect to the descending waters and the surrounding darkness. The thunderbursts became at length more distant, and less distinct, until they passed far away to the east in low and almost inaudible mutterings. The stars appeared one after another in all their accustomed brilliancy, and the scene, from being one of awful and terrible sublimity, became indescribably beautiful.—(Mercury at sunrise, 65° ; sunset, 70° .)

June 22.—Several persons were ill in camp, yet not confined to their wagons. Mrs. Thornton and myself were among the number. The day was cool and clear, and the wind somewhat boisterous. We traveled until a little before sunset, over a very sandy road, and through a country that appeared to be very arid and uninteresting. We saw, however, some fine trees at a distance from our road, on the left. We encamped at length on a very beautiful prairie, having excellent grass, and a large spring of clear water in the midst of it.

Mr. Lard had left one of his dogs on the right bank of the south branch of the Nebraska, on the forenoon of the 19th. Poor Jowler finding himself abandoned by his friends—if that is not a misnomer—had sat down upon the bank of the stream, and howled most piteously, and so loud that he was distinctly heard by us across the stream, which was there one mile and a half wide. Finding that he would not be sent for, he had swum

the river ; and came up with us during the night, almost starved, having been four days without food.—(Mercury at sunrise, 65° ; at sunset, 68°.)

June 23.—The morning was foggy. We resumed our journey, however, at the usual hour, 7 o'clock. Proceeding along in front of the wagons, I observed my grayhound, Prince Darco, and Jowler, exchanging morning salutations ; and I noticed that Darco did not express himself in the frigid formalities of well-bred dogs of the "fashionable world," where one thing is said while another thing is meant ; but he gave his old traveling companion a warm and cordial greeting that came up from the bottom of his heart, equivalent to a right "Good morning, Jowler, I am glad to see you." This was, indeed, very clearly expressed in that peculiar wag of the tail, and the inimitable twist which he was wont to give to his neck and head, as he opened his great jaws, and thrust out his long tongue to lick the corner of his mouth, whenever he wished to testify his joy upon first meeting me in the morning.

Jowler, by a slight inclination of the head to the side upon which Prince Darco came up, and by slowly working the ears backward and forward, followed by a sluggish shake, as though they were being bitten by fleas, intimated that he was in good health, but that he felt very weak in consequence of his recent long abstinence from food.

"I observe," said Darco, "that you look very pale in the face."

"Yes, I am so weak that it is with great difficulty I can bark. I very much regret that I was so very unwise as to leave a comfortable kennel, well provided with an abundance of clean straw for a bed, and where

I never lacked for a plenty of good flesh to eat, to follow my master into a country where I shall perhaps be without a kennel, and probably have nothing better than a dry bone to pick."

Here Jowler set up a most mournful howl; and although being behind, and the dust at the time flying in my face, I can not affirm with truth that I saw him shed tears, yet he may have done so. Indeed, I felt the water come into my own eyes. Darco, however, resumed—

"Come, come, my dear dog, do not be so gloomy and desponding. I would fain comfort you, and inspire you with better hopes. We may have better kennels in which to sleep, and something better than bones to pick, in the country to which we go. It is true, a dog is very unwise who leaves a pleasant and healthful kennel, to travel two thousand five hundred miles across arid deserts, inhabited only by sand-crickets and savages, to make his home in a country where his condition as to a kennel and fare will not be improved. But, my dear Jowler, we have proceeded too far to retrace our steps now; and, as wise and prudent dogs, it becomes us to hope for the best."

"Wise and prudent, indeed," replied Jowler somewhat snappishly, "I would like to have you show me a dog upon this road who is wise and prudent. No, my dear Darco, do not deceive yourself by that sort of barking. The single fact that a dog is upon this road, without being tied neck and heels, and thrown into a wagon, and so carried along by the force of circumstances, proves that he is neither wise nor prudent."

At this moment, a donkey belonging to one of the emigrants came up, and joined in the conversation;

having listened to the dogs, as he heavily and sluggishly walked along.

“For my part,” said he, “I can contrive to pick up a few thistles by the wayside, and I do not doubt that I shall be able to obtain an abundance of them in the country to which we are traveling. I am told that it is famous for thistles.”

“Who told you to speak, Mr. Long-ears?” said both the dogs, barking at the same time, and flying at him simultaneously, “you never saw a clover field in your life; and have tasted nothing better than the thistles of the old field in which you were born and bred. Of course, then, you can be satisfied with thistles, because you never knew what it was to have better food. We all know you to be an ass, and that a change of pasture can not make your condition worse, but may result in making it better.”

“Take that,” said the donkey, kicking at Prince Darco; “and that, for your impudence,” he continued, as he kicked at Jowler.

Prince Darco, being a grayhound, was very quick in his motions, and he contrived to elude the meditated blow. But poor Jowler, being a cur, was more slow in his movements. In addition to this, he was somewhat broken in his mind and spirit by recent calamity and starving; just as I have elsewhere seen many a clever dog under the influence of adverse circumstances; and not being so full of life, vivacity, and energy, nor so watchful, he received, before he was aware of his danger, a most terrible stroke in the face, from the heels of the resentful beast. The blow made him howl most piteously; and clearly demonstrated that even an ass may sometimes inflict a severe stroke

when least expected. In fact, the incident, taken in connection with the practical working of some of the arrangements which I had made for the journey, in consequence of my own want of experience in certain employments, determined me to have in the future progress of life, as little as possible to do with donkeys. I shall, therefore, never raise one upon my farm, if, by any means, I shall be able to own one—a circumstance somewhat problematical.

We proceeded until half an hour before sunset, when we encamped for the night in an open grassy plain, on the right of the road, and in sight of the celebrated Chimney Rock; which had been in view since the afternoon of the 22d.

Some of our party, proceeded on in advance of the teams, a little to the left of the way, for the purpose of examining this rock, which appeared to be not more than two miles distant. They had desired me to accompany them, but this I declined doing, because I had observed a remarkable peculiarity in the atmosphere during the twenty-four hours preceding, which made it impossible for me to judge with any tolerable degree of accuracy as to the distance of objects, which though they appeared to be comparatively near, yet required some hours to reach. They accordingly set off without me. After dark they returned to camp, being guided back by the light of our fires, and stated that when they turned back, they did not appear to be nearer the rock than they were at noon.

Mrs. Thornton and myself were quite unwell at the close of the day. Indeed, we had been seldom otherwise since our first coming upon the waters of the Nebraska. This I was inclined to believe was owing

to the mixed salts with which the earth was every where impregnated, which must have imparted their qualities to the water. In all places where there was any soil the greater part of which was not sand, I had observed a white efflorescence of salts. In many places where the ground was cracked, I observed large crystals formed on both sides of the opening. Some of these I examined with great care, and found the crystals to extend down on both sides quite to the bottom of the opening. I also remarked that these seemed to be large, somewhat impure and discolored, while those upon the surface of the ground, usually found in low places, were small and white, looking very much like fine table-salt, and tasting, as I imagine this would, if compounded with glauber-salts, alum, and magnesia.

The day had been clear and warm; but toward evening clouds presented themselves in a variety of forms. Sometimes they appeared in detached masses; at others they rolled up from behind the western horizon, black, and portentous. At length clouds having thin, feathery edges, thickening fast as they extended back, and presenting a black mass of an angry appearance, formed suddenly, and extended rapidly, passing off to the southeast, in low, sullen growls. These were succeeded by others, more threatening, ponderous, and black; having immense heads, and huge aerial forms, piled upon and writhing around each other. These, too, passed off to the southeast, with low rumbling sounds; while the forked lightning gleamed in the main body of the threatening mass.

The shades of evening at length closed in, and there seemed to be a probability that we would have a pleasant night. About 11 o'clock, however, a cloud

appeared in the northwest, which hung about the edge of the horizon for some time, black, heavy, and ominous. It finally began to move, grew larger, increased in velocity, as it flung out heavy folds, and at length reached the zenith. Cloud warred upon cloud; the "live thunder" leaped from one side of the heavens to the other, with a rapidity and crashing that seemed to rend sky and earth; while torrents of living fire descended, and ran like shining serpents along the ground.

I observed, during the day, the wild sage, or *Artemisia*, growing in many places.—(Mercury at sunrise, 66°; sunset, 70°.)

CHAPTER V.

JOURNEY FROM THE CHIMNEY ROCK CAMP TO FORT LARAMIE.

June 24.

THE morning was clear and pleasant, and nature appeared to be refreshed by the rain of the previous night. We started later than usual, not breaking up our encampment until 8 o'clock. Our friends of the Chimney Rock party of yesterday again set off, and about 11 o'clock arrived at the object of their pursuit.

I can not satisfactorily explain the remarkable deception as to distances. The following may account for it, in part, at least. The rays of light passing through a rare medium into a denser one, cause objects seen in the latter, by a person standing in the former, to appear to the eye not in their natural or real position, but raised above it to a height proportioned to the density of the medium in which it is situated; as a coin thrown in a basin of water will appear elevated above its true position. It, probably, in its general principles, is the same phenomenon that is known as the *mirage*, by which the traveler across the desert, who longs for water, "as the hart panteth for the water-brook," is cheated into a delusive hope, by imagining that he perceives before him lakes, reflecting from their clear and smooth surfaces, trees, plants, rocks, and hills.

The same phenomenon is very frequently observed

in other circumstances. An example of this, at once curious and instructive, was observed by Dr. Vince, at Ramsgate, which is mentioned in the Penny Magazine, Jan. 1834. Between that place and Dover, there is a hill, over which the tops of the four turrets of Dover Castle are usually visible at Ramsgate. But, on this occasion, Dr. Vince not only saw the turrets but the whole of the castle, which appeared as if it had been removed, and planted on the side of the hill next to Ramsgate; and rising as much above the hill on that side as it actually was on the other. And this image of the castle was so strong and well defined, that the hill itself did not appear through it. It should be observed that there is almost six miles of sea between Ramsgate and the land from which the hill rises, and about an equal distance from thence to its summit, and that the height of the eye above the sea, in this observation, was about seventy feet.

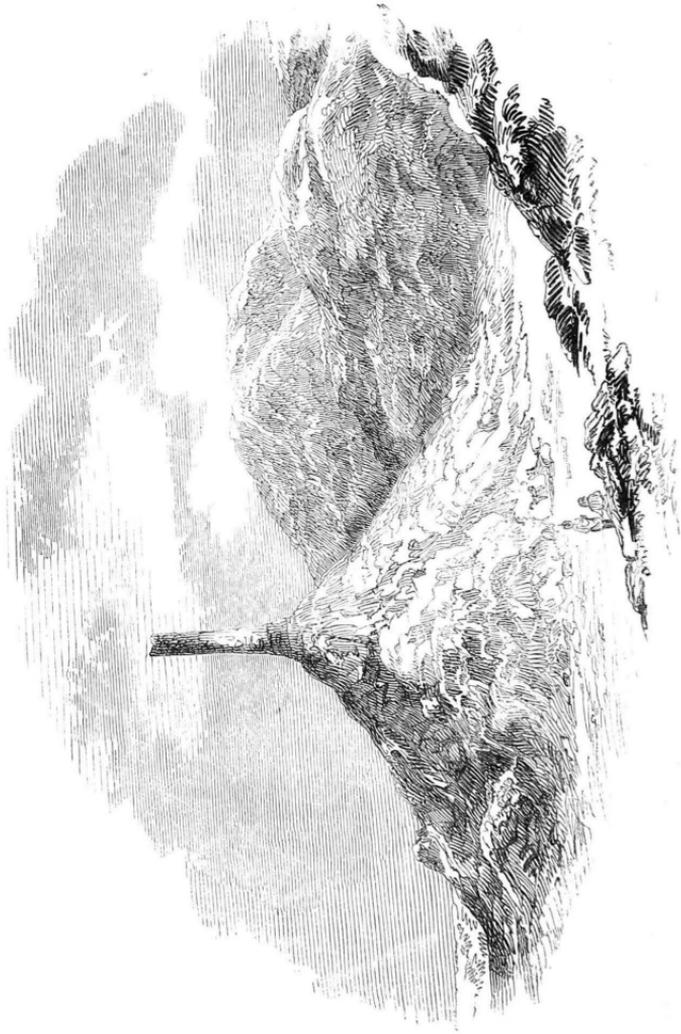
Sometimes the images of the *mirage* are represented as being upon the same plane with the original object. They usually, however, present the appearance of one object above another, sometimes in their natural position, sometimes inverted, sometimes doubled, trebled, or even quadrupled; and sometimes more or less elongated.

The Specter of the Brocken, which for so many years was the terror of the superstitious, and the wonder of the scientific, is a phenomenon of the same general character.

The principle upon which they are all dependent, is thus explained in the article already referred to: "Whenever a ray of light strikes obliquely a medium less refracting than that in which it was previously

moving, it is turned back into the original medium, and a direction is given to it precisely similar to that which would have been the result of a reflection taking place at the common surface of two mediums. Now, the sand of the desert, or the surface of the sea, being heated by the rays of the sun, communicates a portion of its warmth to the stratum of air immediately superposed, which then dilates, and becomes consequently less dense, and therefore less refracting, than the superior strata. In this state of things, when an observer regards an object a little elevated above the horizon, the rays, which, in coming to him, traverse a layer of air of uniform density, will exhibit it in the natural position, while the light directed obliquely toward the surface of the earth, will be bent downward, and so come to the eye as if from an object placed inversely and below the former. This explains the inverted image below the object; but our limits will not allow us to apply the principle to a detailed explanation of all the forms of the phenomenon which we have stated. We must, therefore, content ourselves with saying that our knowledge respecting the subject is, that these effects result from a partial alteration in the density of the atmosphere, and the universal operations to which the light is subjected in coming to the eye. It is not necessary that the alteration should be a decrease of density, since, as the two opposite states of the atmosphere produce the same effects, the mirage at sea is often occasioned by the increase of density in the lower stratum of the atmosphere, from the quantity of water which it holds in solution."

Colonel J. C. Fremont ascertained that a position occupied by him, Sept. 5, 1842, on the right bank of



CHIMNEY ROCK.

the Nebraska, six miles above Chimney Rock, was in latitude $41^{\circ}, 43', 36''$, N. This nearly ascertains the latitude of this celebrated rock. The name indicates its general appearance, looking as it does, like a vast chimney, or shot tower. It consists of marl and earthy limestone, which is the prevailing formation of the surrounding country; and it has been worked into its present curious shape by the continued action of the winds and rains, which have, within a few years, reduced its height from five hundred feet to about two hundred. It is situated about two miles to the left of the road, as the emigrant proceeds westward; and about twenty-five or thirty miles from our encampment of the evening of the 22d. The action of the wind and rain upon the soft marly formation of the country presents some very curious and interesting objects, which, seen in the distance, are remarkable imitations of magnificent works of art partially in ruins. One of these, called the Court House, was in full view during the afternoon of Monday. It had the appearance of a vast edifice, with its roof fallen in, the great door-ways partially obstructed, some of the window spaces filled with rubbish, and many of the arches broken and fallen, while others seemed to remain as perfect as if they had really been built thousands of years ago, by a people who have perhaps gone down into the vortex of revolutions; the last page of whose history has been given to the winds, leaving no trace of their existence, save these remains of architectural grandeur and magnificence, that now lift up their heads amid surrounding desolation; befitting monument of man's passing glory, and of the vanity of his hopes.

Far off to the left of the plains between Chimney

Rock and Scott's Bluff, were many views of remarkable and picturesque beauty, owing their origin to the effect of the winds and rains upon the same peculiar formation. The bluffs presented the appearance of the ruins of some vast ancient city. In one locality, there could be no difficulty in recognizing a royal bath. In the immediate vicinity, there was a vast amphitheater, having upon one side an excavation like an immense niche, with a platform before it, supported by pillars. Here it was imagined that the monarch might have sat upon his throne, surrounded by obsequious courtiers and servile slaves, while the life blood of men better than himself was being shed to make him a holiday; and while, it might have been, loud shouts and plaudits rent the air, he enjoyed the spectacle as one of rich and rare interest. Not far away, we saw what appeared to be a splendid mausoleum, where the noble ashes of his royal ancestors slept. Towering above all, was the temple of Belus, with its stairs ascending around a gradually diminished surface. Here I saw the old palace; there, the new one. In front of one of them I saw the towers that stood on either side of the entrance to the tunnel under the river connecting the two. Near at hand were the celebrated hanging gardens, considerable portions of them remaining in a tolerable state of preservation, and showing in many places hardy shrubs, that, having sent down their long roots into the partial opening of the supporting arches, still smiled in beautiful green, amid general desolation. Numerous streets, having on each side magnificent buildings and lofty domes, sublime in their dimensions and proportions, and beautiful in the outline and details of their architecture, extended far away, so that their remote ends

were lost in the distance. A fortification, large enough to contain the army with which Napoleon invaded Russia, showed enormous bastions, frowning in massive strength, while the workmanship of its domes, parapets, and minarets presented a very remarkable fullness of detail. Away to the west stood a long line of the wall of the city, with its yet remaining battlements, towers, and loop-holes; mid-way was the vast arch, beneath which flowed the river, through the midst of the city, until turned by Cyrus the Great into a new channel, where it still flows, at the farther side of the plain, spread out in broad, shallow, and turbid streams, that sluggishly creep along among the sand-bars of what was the Euphrates once, but which is the Nebraska now.

Upon approaching still nearer, the mind was filled with strange images and impressions. The silence of death reigned over a once populous city, which had been a nursery of the arts and sciences, and the seat of a great inland commerce. It was a Tadmor of the Desert, in ruins. No signs of life were visible; a whole people were extinct. The imagination wandered back. The city had fallen into the hand of a beleaguering and sanguinary foe. No quarter had been given; citizen and soldier, old man and matron, young man and maiden, young children and helpless infants, had all fallen victims to a spirit of revenge and retaliation, and to a thirst for gold, and all the worst passions of the human heart. The evening succeeding the day of undistinguishing slaughter and outpouring blood, was one which the ascending fires made terribly sublime. The flames had spread, and in a few brief but dreadful hours, wrapped temple and dome, the palaces of the royal,

the mansions and pavilions of the rich, and the cottages and hovels of the poor, in one vast sheet of consuming fire, that licked up the very dust of her thousand streets. Many multitudes, perhaps, in attempting to escape from the city, had been slain by their pursuers, who had heaped up their bodies in promiscuous masses about the gates; and under those very walls which still withstood the power of time through a long series of ages. In one day, the anxious crowds of citizens, and the untold thousands of contending soldiers, were swept away by a slaughtering foe, who had left none to bewail the dead, or to gather from beneath the ruins the bones of those who had perished in sanguinary conflict.

My imagination being thus excited by the remarkable and picturesque views presented to me, in shapes which the action of the wind and rains had wrought in the soft marly formation of the country, I permitted it to wander at will, and to fill the mind with images and scenes, such as I have described. But it being reported to me, by Albert, my ox driver, that one of the wheels of my wagon was making a most terrible groaning for grease, I was brought down from my celestial aerie with such force, upon vulgar realities, as not only made me feel very much ashamed, but broke both wings of my imagination, and, indeed, every bone in them, beside so soiling my feathers, and otherwise so seriously injuring me, that I have at best been but a limping bird ever since.

Col. Fremont, in his Journal, under date July 14, 1842, speaks of appearances somewhat similar, at a place known as Goshen's Hole, where the geological formation is like that of the Court House, the Chimney Rock,

and the locality I have just described, and to which I have given the name of "*The City of the Desert.*"

"The fork on which we encamped," says he, "appeared to have followed an easterly direction up to this place; but here it makes a very sudden bend to the north, passing between two ranges of precipitous hills, called, as I was informed, Goshen's Hole. There is somewhere in or near this locality a place so called, but I am not certain that it was the place of our encampment. Looking back upon the spot, at the distance of a few miles to the northward, the hills appear to shut in the prairie, through which runs the creek, with a semi-circular sweep which, might very naturally be called a hole in the hills. The geological composition of the ridge is the same which constituted the rock of the Court House and Chimney, on the north fork, which appeared to me a continuation of this ridge. The winds and rains work this formation into a variety of singular forms. The pass into Goshen's Hole is about two miles wide, and the hill on the western side imitates, in an extraordinary manner, a massive, fortified place, with a remarkable fullness of detail. The rock is marl and earthy limestone, white, without the least appearance of vegetation, and much resembles masonry, at a little distance; and here it sweeps around a level area, two or three hundred yards in diameter, and in the form of a half moon, terminating on either end in enormous bastions. Along the whole line of the parapets appear domes and slender minarets, forty or fifty feet high, giving it every appearance of an old fortified town. On the waters of White River, where this formation exists in great extent, it presents appearances which excite the admiration of the solitary traveler,

and form a frequent theme of their conversation, when speaking of the wonders of the country. Sometimes it offers the perfectly illusive appearance of a large city, with numerous streets and magnificent buildings, among which the Canadians never fail to see their *cabaret*; and sometimes it takes the form of a solitary house, with many large chambers, into which they drive their horses at night, and sleep in these natural defenses perfectly secure from any attack of prowling savages. Before reaching our camp at Goshen's Hole, in crossing the immense detritus at the foot of the Castle Rock, we were involved amid winding passages cut by the waters of the hill; and where, with a breadth scarcely large enough for the passage of a horse, the walls rise thirty and forty feet perpendicular."

Some of the hills far off to our left, beyond the bluffs I have been describing, appeared to have a few trees, which I thought were cedars. A fine large bison was killed by one of the party. They did not appear to be numerous in this region. We were under the necessity of using the *bois de vache* almost exclusively after leaving the south branch of the Nebraska. Previous to that time we had usually been able to procure dry sod, or to have wood by carrying it half a day or a day. The weather was warm, pleasant and clear. The road not so sandy as was usual after leaving the south branch.—(Mercury at sunrise, 64°; sunset, 72°.)

June 25.—We left the north branch of the Nebraska, and wound round into a little valley presenting more of the extraordinary bluffs before described and characterized by the same general appearances of the ruins of numerous edifices, sometimes washed by the rains and winds into the most fantastic shapes. We saw a

species of insect here in great numbers which was new to us, and which is known among the emigrants as the sand-cricket, from the circumstance of their being usually found in sandy and arid districts. They were however really a sort of grasshopper. It is black, thick, and short, about thrice the weight of the hearth-cricket. About 2 o'clock we found a little rain-water in a ravine. We encamped at a place known as Scott's Bluff. At this place are two small springs of excellent water, one of them is under a high hill, where the emigrant road crosses the head of a small ravine. The other is better, more abundant, but one mile farther on, and at the head of a very deep ravine. We also had an abundance of cedar wood here, which grew in the ravine last mentioned. Indeed, the whole plain was covered with dry cedars, which a tremendous flood is reported to have brought down from the Black Hills about ten years before.

The water and grass at Scott's Bluff were good and abundant. The soil of the country after leaving the south branch of the Nebraska being generally very sandy, and much more sterile than that along the main stream below the confluence of the branches, we had had comparatively little grass for our cattle, and had been compelled to use the *bois de vache* for fuel. The grass upon the upper prairie had generally been either entirely wanting, or else its growth had been thin, yellow, and poor; and it was only in spots far separated, and upon low grounds along the streams, that we had ever found it at all abundant. Although the valley of the north branch of the Nebraska, up to where we then were, has a variable width of from one to six or seven miles, it would be a great mistake to

imagine that, being low, it was well supplied with grass.

The place known as Scott's Bluff is an escarpment of the river, about nine hundred yards in length, rising boldly and in many places even perpendicularly from the water; rendering it necessary for the emigrant road to make a considerable detour to the left. It derives its name from the following circumstances:—

A party of Rocky Mountain trappers in the employ ment of the American Fur Company, under the com mand of a celebrated leader named Scott, was return ing to St. Louis, in boats down the Nebraska. The water continued to shoal so much as to render it im practicable to proceed in this manner beyond the point on the river opposite to this place. Scott was sick and helpless, and was abandoned in the boat by his com panions who, upon arriving at St. Louis reported that he had died, and that they had buried him upon the bank of the Nebraska. Some time in the following year a party found the dead body of a man wrapped in blankets, which the clothing and papers about it, proved conclusively to be that of the unhappy trapper; who, after being abandoned by his inhuman companions to perish, had so far recovered as to be able to leave the boat, and wander into these bluffs, where a more speedy death at the hands of the savages awaited him, or one more lingering by famine.

I saw here the wild wormwood tree, as also a species of the cactus which was new to me. It sent out leaves from near the ground, and around a common center. They enlarged and spread out, each being about fourteen inches long, three inches wide, and half an inch thick, with a smooth, velvet-green surface; having

irregular edges armed with hard prickles about one inch in length. From the center a very straight green stalk, about half an inch in diameter, rose about eight inches above the leaves, and was crowned with a white flower, in shape and size very like that known in our American gardens as the snowball.

A beautiful white flower resembling the poppy grew here, upon a low plant, the leaves of which were armed with prickles. Black currants were abundant and pleasant to the taste. Cherries grew wild, but were small and bitter. I also saw a sort of pea, which tasted like the garden pea, and very much resembled it both in the appearance of the plant itself, and in that of the fruit. The hill sides were in many places covered with a species of mountain moss. Upon the high bluffs between our encampment and the river many Rocky Mountain sheep were seen. Antelope were also numerous. Prince Darco contrived to pick up one. Some of the hills had many cedars growing upon them, while others were naked.

A gun having been fired for some purpose near the camp, the report echoed and re-echoed several times. I retired to a place near three-fourths of a mile in another direction for the purpose of making the experiment unobserved.

Dark clouds were now sweeping along above the summits of the lofty hills, and some pattering drops of rain began to fall in the valley while the thunder rolled through the black and dense masses of vapor in tones of deep and solemn grandeur.—(Mercury at sunrise, 64°; sunset, 72°.)

June 26.—The morning was clear and cool, the wind blowing a gale from the west. Mrs. Thornton,

who was, however, still suffering from ill health, with the aid of some of her female companions, ascended one of the very high bluffs from the top of which she had a fine view of the country, and of the north branch of the Nebraska, beyond Chimney Rock. The country over which we traveled was generally ascending, and presented a most barren aspect and painful sameness. The day was warm, and had it not been for a stiff breeze into which the gale of the morning had subsided, the heat would have been very oppressive. At 10 o'clock we found rain-water for the cattle. About an hour before sunset we encamped near the margin of the river, at some distance from the road, at a place from which it was difficult for the cattle to go down to the water. The evening was pleasant, and the winds were high, during the night.—(Mercury at sunrise, 63°; sunset, 69°.)

June 27.—At noon we halted to rest in a little ravine, where we had good water, but very little grass. We resumed our journey, after our noon halt, somewhat refreshed, and proceeding on over a sandy and desolate country, encamped an hour before sunset upon the banks of a small stream, lightly timbered, and within ten miles of Fort Laramie. The marl and earthy limestone formation of the region through which we had been traveling for some time, had disappeared, and we had instead a grayish white limestone, which sometimes contained hornstone. I also saw some fine grained granitic sandstone.

A company of travelers, consisting of persons of both sexes, some of whom were from Oregon and some from California, returning to the States, were encamped upon a plain about a mile distant. They presented a very

woebegone appearance ; and brought us, moreover, an evil report of those lands. The Californians affirmed that the country was wholly destitute of timber, and that wheat could not be raised in sufficient quantities for bread ; that they had spent all their substance, and were now returning to commence the world anew somewhere in the vicinity of their former homes.

Among the Oregonians was a Mr. McKissick, an old gentleman, suffering from blindness caused by the dust of the way, when he first emigrated into Oregon. He was now being taken back to the States, with the hope that something might be done to restore his sight.—(Mercury at sunrise, 62° ; sunset, 67°.)

June 28.—Sabbath.—We set off for Fort Laramie at about 7 o'clock, the usual hour of breaking up camp. The day was clear and warm ; the country parched and sandy, and therefore furnishing very little or no grass. We arrived at the fort about 2 o'clock ; where I was informed that the scarcity of grass in the vicinity was owing to the three preceding years having been remarkably dry. The valley of the north fork of the Nebraska being without timber, and the soil sandy, causes a rapid evaporation of the rain that falls ; so that when there is any deficiency in the quantity of this, the grass must necessarily perish.

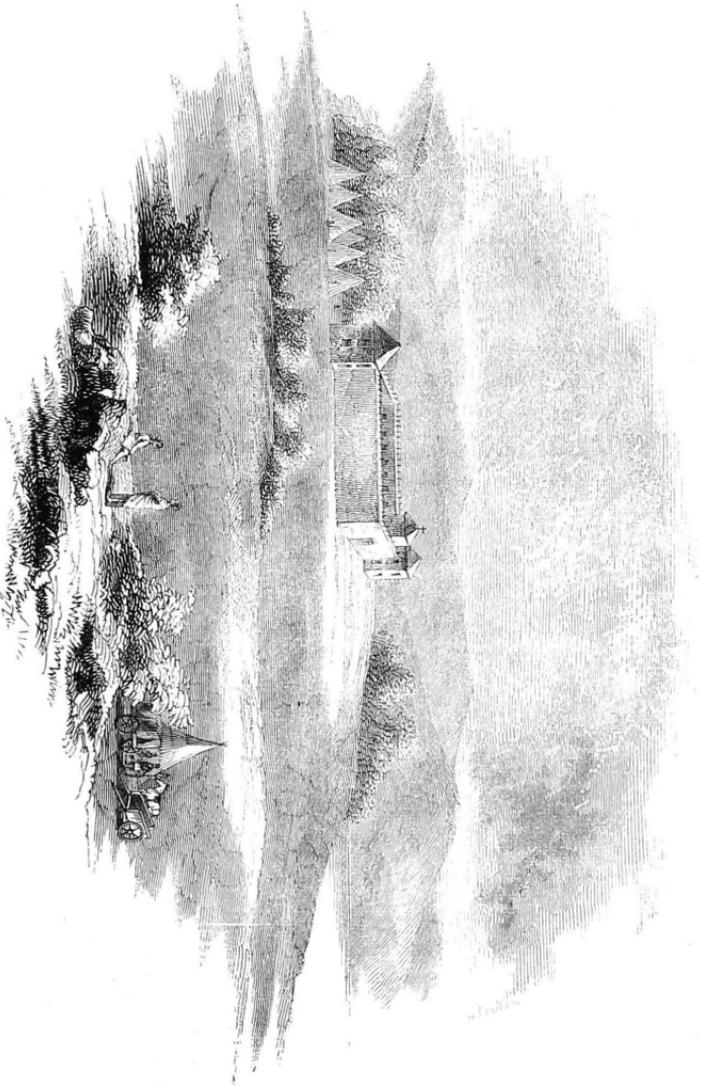
Between Fort Laramie and the junction of the two main branches of the Nebraska, which is two hundred miles below the fort, the formation consists of marl, soft earthy limestone, and a granitic sandstone.—(Mercury at sunrise, 62° ; sunset, 66°.)

CHAPTER VI.

JOURNEY FROM FORT LARAMIE TO INDEPENDENCE ROCK.

FORT LARAMIE, according to Col. J. C. Fremont, is situated in $42^{\circ}, 12', 10''$ N. latitude, and $104^{\circ}, 47', 43''$ W. longitude. It belongs to the American Fur Company, and is built upon the left bank of the Laramie river, a bold mountain stream of clear and refreshingly cool water, which strongly contrasts with the warm, turbid waters of the Nebraska, in both its branches.

The fort has somewhat the appearance of a military construction, and presented a rather imposing front. It is built upon a rising ground, twenty-five feet above the water; and its lofty whitewashed, and picketed walls, when so seen as to take in the bastions, look quite formidable. The great entrance fronts toward the river; and being about fifteen feet long, floored, and covered by the square tower which defends it affords a pleasant place to sit and enjoy the exhilarating breezes for which the surrounding country is famous. The fort is of a quadrangular form, having walls fifteen feet high, built, according to the Mexican usage, of *adobies*, or large sun-dried bricks, and surmounted by a wooden palisade. The four walls are defended by bastions, diagonally opposite to each other, and considerably raised. There is a small entrance in the wall, immediately opposite the main one, serving as a sort of postern-gate. The houses are generally one story high, and so built against the wall, that each



FORT LARAMIE.

apartment with its single door and window faces in front; so that the whole forms an open court, nearly one hundred and thirty feet square.

I was received by Mr. Bodeau, the gentleman in charge of the post, with much kindness; and he readily supplied me with moccasins, dried bison flesh, and seasoned timber to be used for false spokes to my wagon-wheels as might be found necessary. He informed me that the object of the establishment is for the purchase of furs and buffalo robes from the neighboring Indian tribes, who receive in exchange tobacco, blankets, whisky, powder, lead, calico, vermilion, looking-glasses, rings, ribbons, glass-beads, and cheap ornaments.

The introduction of ardent spirits into the traffic is defended on the ground that, in the present state of things, the itinerant or peddling trader, who is called by the French trappers, *coureur des bois*, having no permanent and fixed interest in the country, uses it in his traffic with the natives, and thereby compels the regular trader to do so, in order to prevent the Indians from going over to this unsettled rival.

An Indian will sell his furs, traps, robes, horses, lodge, weapons, and even his wife and children, for "fire water." To supply them with it has a direct tendency to destroy the trade, by the destruction of the Indians, which it necessarily effects in time. The regular trader is aware of this, and therefore has great interest in keeping it out. If, however, the *coureur des bois*, in violation of the laws of God, of humanity, and of his country, sells spirituous liquors to the Indians, the regular trader must do so likewise, or abandon the field to his unscrupulous rival.

The extraordinary rapidity with which the bison have disappeared within a few years, has often been the subject of remark by travelers as well as by traders.

The Indian tribes in the country around Fort Laramie, and especially the Sioux and Cheyennes, become each year more and more hostile to, and jealous of the whites; and nothing but a dread of bringing upon themselves the military force of the United States, of whose power and strength they seem to have some confused idea, restrains them from making an open war upon the emigrants, as they pass through their country, on their way to Oregon. Some of the Sioux chiefs, who were at the fort, advised us, through Mr. Bodeau, to proceed immediately on our way, and join ourselves to larger parties of emigrants in advance, and not to remain in camp until Tuesday, as we had proposed. They stated that their people were in great force among the hills, some miles distant, preparing to send out a large war-party, to fight the Crows, and their allies the Snakes, through whose country we had yet to pass. They stated that several hundred lodges would be gathered on the following morning; and, as they were not pleased with the whites, and, in addition to this, were at that time sulky and cross, in anticipation of their fighting with the Crows and Snakes, it would not be advisable to be in camp when they should arrive; as they would annoy us by at least begging and stealing, if not by open robbery.

For the purpose of conciliating good-will, our party prepared a supper for all the Indians who then had lodges near the fort. Among the chiefs, was one who showed us a certificate from L. W. Hastings, to the

effect that this savage had saved his life at Independence Rock, in 1842, by delivering him out of the hands of the Indians, who had there seized him.

Upon a hill, half a mile from the fort, I observed a place of Indian sepulture. Many of the dead were lying upon scaffolds erected for the purpose, and they were wrapped in bison robes. The bones of others had fallen down, and were bleaching upon the ground, in little inclosures made to protect them from beasts of prey. A few of the bodies were inclosed in boxes. The wolves howled around the place all night.

Mr. Bodeau appeared to receive with pleasure two large bundles of tracts, which I left with him for the use of the fort. Most of the white men about the place had taken Indian wives, and there were many little half-breeds about the doors. A worthless white woman, who had been in one of the forward companies, had stopped at this place.

Mr. Fitzpatrick, who has spent many years upon the plains around this trading post, and among the Rocky Mountains, says, that at Fort Laramie there is very seldom any snow, that he has never seen a depth of more than fifteen inches; and even this does not remain upon the ground more than two or three days. —(Mercury at sunrise, 62°; sunset, 65°.)

June 29.— We were all ready for an early start, being again admonished to hasten forward so as to unite with others for defense, as it was alleged that the war-party would set out to meet their enemies; and that if they should even pass us without molesting us, yet that upon returning, if they were victorious their pride would prompt them to be insolent, and if defeated their anger and resentment would be vented

upon us. As we were about to leave camp, the Indians dressed in their best savage finery and ornaments began to appear in small bodies on horseback upon the neighboring hills, whence they swept down the long slopes, until we were surrounded by many hundred warriors.

Mrs. Thornton says, in her journal: "These Indians appear more independent and high-spirited than any we have seen. They seem to be in good circumstances. Some of them were really elegantly dressed, in Indian style. I shook hands with a great many of them, this being their manner of expressing a desire to be friends and at peace. Few of our city exquisites can present a hand so soft and elegantly formed as were those of these Indians."

I imagine that Mrs. Thornton looked upon these people with that sort of romantic enthusiasm for Indians, and Indian character, which the erroneous and pernicious sketches of them usually seen in our books are so well calculated to inspire. For myself, I must say that, regarding them with the impartial eye of reason, and in the light of facts, which shows objects in their natural colors, and not through fancy, by which every thing is seen in a false light, I saw nothing to admire, but every thing to excite mingled emotions of pity, contempt, disgust, and loathing.

A few miles from the fort we passed through the crater of an extinct volcano. About 2 o'clock we passed a large spring, about 150 yards to our right; but the wagons had generally passed before it was discovered, so that our cattle, although they were very thirsty, from having traveled in a warm day over hot sands, were yet without water.

The country over which we passed during the day was generally hilly, almost destitute of grass, but having a multitude of wild sun-flowers, prickly pears, and wormwood. The hills in the distance appeared to be covered with cedars. A little before sunset we encamped near the margin of a small stream, where we had but little grass. The bison had entirely disappeared.—(Mercury at sunrise, 61°; sunset, 65°.)

June 30.—On the following day great confusion prevailed in camp, in consequence of some of the Californians whom we had overtaken in the morning, and some of our own party, desiring to remain in camp; while others of both parties wished to proceed. Finally the Californians all determined to go forward. Messrs. Crump, Vanbebber, and Luce, who had left us on the preceding Sabbath, continuing with them.

Between 10 and 11 o'clock intelligence came to our little camp that a large body of emigrants had arrived at Fort Laramie, after one of their number, a Mr. Trimble, had been killed by the Pawnees; and that a large number of Sioux Indians would probably arrive at our camp during the day. This determined us to break up camp without delay; and at 2 o'clock we were again *en route* among the Black Hills, which we had entered soon after passing the large spring at 2 o'clock on the day before. We drove over a dreary and desolate country, and halted about half an hour before sunset, on the margin of a piece of low land at the left of the road, well covered with grass. Near by was a creek of excellent water, affording an abundant supply of wood. Laramie Peak, which can be seen from a point sixty miles east of the fort, was in full view.

Grasshoppers (known among the emigrants as sand-cricket) were seen in immense numbers during the day, and rose in a little cloud before us, as we walked along. We saw little or no grass, except along the ravines and water-courses.—(Mercury at sunrise, 60°; sunset, 53°.)

July 1.—We rose before the stars were gone, and had breakfast over before the sun was above the horizon. We broke up our encampment at 30 minutes past 9 o'clock, and at 10 o'clock, A.M., passed the yet smoking camp-fires of the party of Californians in advance of us. We passed a prairie-dog village during the day. I saw one of these little animals, and heard many more. The country was hilly and poor, although there were many very large pine trees. One of those hills was the highest and steepest we had seen. We saw, for the first time, the large hare; also many beautiful white flowers, one of delicate blue, resembling the flax blossom, but much larger. The common blue flax abounded. We encamped on the bank of a small creek, at a place from which we saw Laramie Peak towering up in the distance, with its clearly defined, dark outlines standing against the face of the sky, large, massive, and sublime.—(Mercury at sunrise, 54°; sunset, 67°.)

July 2.—We rose very early this morning; but in consequence of some of our cattle having wandered away, we did not move until after 7, A.M. The country over which we passed was hilly, with much sand in the little valleys and plains. We came to water in the afternoon; and in the evening encamped on the bank of a small stream of good water, where we had an abundance of wood; but grass was deficient both

in quantity and quality. The day was clear, and the high winds blew about the sands, much to our annoyance. We saw few pines during the day. The face of the whole country wore a very dreary and barren aspect. The last five miles of our drive was over a red soil, and red argillaceous sandstone. We were both unusually ill, although neither confined to the wagon. The Californians encamped within a quarter of a mile of us.

Our cattle were either strictly guarded every night, or else *kraaled*, from the time of our leaving Wokaruska up to this time. We continued to observe this necessary precaution every night throughout the whole of our journey.—(Mercury at sunrise, 65°; sunset, 67°.)

July 2.—At a very early hour, we broke up our encampment, and were on our way. The red soil and red argillaceous sandstone of the previous day, were observed for several miles. The roads were neither so difficult or sandy. The country presented in many places the evidences of a former powerful volcanic action. The common blue flax that is cultivated in the States, was the prevailing plant of the country. We encamped on the banks of a pleasant stream, a little before sunset. Mr. Cornwall left us on the afternoon of this day, and joined himself to the Californians, who encamped three or four miles in the rear.—(Mercury at sunrise, 57°; sunset, 65°.)

July 4.—Having the last guard, I fired my rifle and revolving pistol, at the dawn of day, in honor of the anniversary of the Declaration of American Independence. The pulsations of my heart were quickened as I heard the morning gun, and saw the banner of my country run up to the top of the staff, in my own little

city, and thought of the rejoicings of the nation. The Californians remained in camp to celebrate the day. We resumed our journey at an early hour, and after traveling over a barren country of sandy hills and valleys, arrived again at noon at the north branch of the Nebraska, where we halted. After watering our cattle, and resting about an hour, we resumed our journey. After traveling about six miles over a country which, although not a good one, was much better than that of the forenoon, we encamped on a pleasant stream, where we had enough of wood and water. At this place, we found black currants, which, upon being cooked, however, were not so agreeable to the taste as they had promised to be.—(Mercury at sunrise, 44°; sunset, 63°.)

July 5.—Sabbath.—We journeyed on this day as usual, and over roads so exceedingly dusty, that had there been much wind, great suffering must have been caused. At 4 o'clock, we passed two companies of Oregon emigrants, the one being led by a Mr. Campbell, and the other by a Mr. Crabtree. Two of our company had gone forward in advance of our wagons, for the purpose of proposing a union between these two companies. They declined receiving any new accessions.

At six o'clock, we encamped near some beautiful and pleasant springs, that broke out of the banks of a small creek, where we had wood sufficient for culinary purposes, and enough of good grass for the cattle.

July 6.—We crossed the river, at the lower ford, at 11 o'clock, and encamped early in the afternoon, on the bank of the same stream, at the upper ford. The grass was moderately good, and in quantity only suffi-

cient for a small supply: wood also scarce. I saw on this day, a fine specimen of anthracite coal, said to have been taken from Deer Creek, west of Fort Laramie. The day was clear and warm, but our journey unpleasantly dusty. The country seemed generally very barren and unproductive.—(Mercury at sunrise, 56°; sunset, 64°.)

July 7.—After traveling over a sandy country, we nooned at a place where there was no grass, and only a little water, standing in pools, rendered very impure and unwholesome by mixed minerals. At 2 o'clock, we came to a large pool of very cool but brackish water. Not more than half the company watered their cattle at it, having deemed it unsafe, in consequence of the mire, which made it very difficult to approach.

The day was the warmest we had experienced, and the dust filled the lungs, mouth, nose, ears, and hair; and so covered the face, that it was sometimes difficult to recognize each other. The emigrant should not fail to prepare for this intolerable dust, by procuring several pairs of goggles for the eyes of each member of his family, so that if one or more pair should be either lost or broken, they may be supplied with a reserve for any emergency. The want of these goggles, besides the serious inconvenience which must necessarily result, is often attended with effects, amounting to much more than a simple inconvenience. The blindness of Mr. McKissick, whom we had met ten miles east of Fort Laramie, is an example in point. The goggles can be purchased in the United States for thirty-seven and a half cents. On the road, they are invaluable. I may not remark upon this subject again, and will,

therefore, now say, that among the most serious inconveniences the emigrant will have to encounter upon this journey will be the dust. I have known the time when I would have given fifty dollars for a pair of goggles. We suffered from this almost insupportable flying sand or dust, for weeks, if not for months together. I mention this thing thus explicitly, because I desire to be practically useful to my readers, especially such as may contemplate the like journey. It is for the same reason that many other subjects are remarked upon, whose necessity or propriety might not otherwise be apparent.

Near sunset, some excellent sulphur water was found on the left of the road, and about one-fourth of a mile distant. Near the road were a number of pools of water, so impregnated with mixed minerals, as to be unfit for the cattle. We continued traveling over a barren and desolate country, until about ten o'clock at night, when we encamped at a place where were several beautiful springs, although there was no wood, and the grass was deficient. Four other companies were encamped at the same place. It was, upon the whole, a very hard place for our cattle. One of Rice Dunbar's sank down about sunset, and was left. The night was clear, beautiful and cool, and the moon was at the full. We found some of the emigrants roasting the flesh of a bison that they had killed late in the afternoon; a proof that herds of these untamed rovers of the far West could not be very distant.

The soil around our encampment was parched and burnt; the little grass which we found crisped under our feet, and the hardiest plants were perishing for want of moisture. The country was, consequently,

barren and arid. No trees were any where visible. The situation being in an elevated naked region, was exposed to a very rapid evaporation; to which may, perhaps, be attributed in part its barrenness, and the numerous saline efflorescences which were observed here, as they had been by us in all situations exposed to the sun, after we arrived at the main stream of the Nebraska.—(Mercury at sunrise, 49° ; sunset, 68° .)

July 8.—We resumed our journey in the morning, which was clear, bright, and pleasant. Mrs. Thornton and myself proceeded forward, on foot, four miles to the well known Willow Spring, which takes its name from the great number of willows at that place. The water was good, when taken up before it became impure by flowing over ground containing a great amount of mixed salts. We proceeded forward until we halted near a spring of moderately good water, in a small prairie scantily supplied with crisped grass. Our weary oxen, poor creatures, greatly needed rest.

At this place the first open and very marked attempt was made to seize upon my property, and leave myself and wife in the wilderness, exposed to the tender mercies of the savages. David came to my wagon, with one Rice Dunbar, and coolly informed me that he intended to take from me two ox-yokes and their chains. He might have added—and two yoke of oxen, for the effect of the wickedness contemplated would have been to deprive me of that number. This would have left me helpless. Ere I could believe my senses, he had already carried away one yoke and chain.

I now saw that the spirit I had for a long time observed must be met and promptly subdued, if I was not prepared to make up my mind to a very romantic

death for Mrs. Thornton and myself in the wilderness. Having never read any works of fiction, except the story of Jack the Giant-killer, I had not by novel-reading caught that spirit of romance under the influence of which I might have aspired to become the hero of some lachrymose story. I therefore determined that when this redoubtable Dutchman returned for the second yoke and chain, I would make an example of him for thus attempting by force to take away my property.

He took up the second yoke, and loaded himself with it and the chain; and I took up a musket, which although not loaded, had a bayonet upon it, and immediately came down upon him in a solid body, with fixed bayonet; charging with great spirit, in double quick time, I deployed, extended my flanks, and executed, with great skill and precision, a number of most masterly military manoeuvres; and, in fact, did every thing but cut up myself into divisions, until I so cut up the enemy, that he dropped my property. Very soon after this I succeeded in turning first his left flank, and then his right; when he commenced retreating, panic-struck and in great precipitation, disorder, and confusion, and so rapidly that his coat tail stuck out in very ludicrous style. I now concentrated all my forces for a full, vigorous, and final charge upon the enemy's rear; and accordingly bore down upon him with much enthusiasm, and was giving him great tribulation—indeed doing the most appalling execution—when Rice Dunbar and Albert reinforced him, and enabled him to make good his retreat, without further loss, behind a wagon; where he took post, shaking most terribly in his shoes, and crying, “Plut and tunder.” I then sprang

into my wagon and got my six-shooter, and by making a forced march was soon before the enemy's works, which I forthwith stormed. I then marched him out, and marched him before me to the first yoke and chain taken by him, which, with great docility, he took up and carried back to my wagon.—(Mercury at sunrise, 51°; sunset, 72°.)

July 9.—We resumed our journey in the morning at the usual hour. We traveled during the day over a level country, bounded by a range of broken hills, a few miles distant. The plain seemed to be pretty well supplied with dry grass, upon which we saw many bison feeding. We saw also during the day many very large granite rocks, which rose abruptly out of the plain to the height of one hundred feet. I saw, also, at one place, huge cubical blocks of granite, the cement which had united them having decomposed, and left them isolated. There was, likewise, beautiful serpentine, semi-transparent, and of a deep green color, not unlike emerald. Some two or three of the finest "stones," as one of my fellow-travelers was pleased to call them, I added to my little geological traveling cabinet. But I regret that subsequent disasters compelled me to throw them away. The day was clear, dry, and warm; the roads dusty, having many bushes of *Artemesia tridentata*, growing on either side.

Some distance to the left of the road, as we approached Rock Independence, about one mile and a half from it, we saw a large pond of water so strongly impregnated with the carbonate and bi-carbonate of potash, that the water would no longer hold it in solution, and a hundred tons of it might have been lifted from the bottom, to which it was precipitated by the

process of evaporation which goes forward in the dry season. Along the edges of the pond it was found in broad and perfectly white sheets, from one to two inches thick; very much resembling snow, raised in large, broad cakes, after it has first been slightly strewed upon the surface, in the afternoon of a warm winter's day, and has then been frozen during the night. That which was taken up from the bottom of the pond looked precisely like fine salt, taken from a bucket of water into which so much has been thrown that it would hold no more in solution. These ponds were numerous in the subsequent portions of our journey.

The emigrants collected this salt, and used it, under the name of saleratus for the purpose of making bread light and spongy. Most persons liked the bread so made. I did not.

About an hour before sunset we encamped within one hundred yards of the celebrated Independence Rock. Between Fort Laramie and this place the rocks consists of limestone; gray, yellow, and red argillaceous sandstone; with compact gypsum, and fine conglomerates.—(Mercury at sunrise, 59°; sunset, 58°.)

CHAPTER VII.

JOURNEY FROM INDEPENDENCE ROCK TO GREEN RIVER.

THIS celebrated rock owes its name to the circumstance of a number of patriotic Americans celebrating, at this place, the anniversary of the National Independence. They were passing through the country, and having reached the rock on the evening of July 3d, they spent the following day in patriotic festivity. According to Col. Fremont, it is in longitude $107^{\circ}, 56'$, west, and latitude $42^{\circ}, 29', 36''$, north. His description of this rock being quite as accurate, upon the whole, as any thing I could present, I extract it from the report of his expedition of 1842:—

“This is an isolated granite rock, about 650 yards long, and 40 in height. Except in a depression of the summit, where a little soil supports a scanty growth of shrubs, with a solitary dwarf pine, it is entirely bare. Every where within six or eight feet of the ground, where the surface is sufficiently smooth, and in some places sixty or eighty feet above, the rock is inscribed with the names of travelers. Many a name famous in the history of this country, some well known to science, are to be found mixed among those of the traders, and travelers for pleasure and curiosity, and missionaries among the savages. Some of these have been washed away by the rain, but the greater number are still very legible.”

Again, he says, under date of August 23, 1842:—

“Yesterday we reached our encampment at Rock Independence, where I took some astronomical observations. Here, not unmindful of the custom of early travelers and explorers of our own country, I engraved on this rock of the far West a symbol of the Christian faith. Among the thickly inscribed names, I made on the granite the impression of a large cross, which I covered with a black preparation of India rubber, well calculated to resist the influence of wind and rain. It stands amid the names of many, who long since have found their way to the grave, and for whom the huge rock is a giant grave-stone. One George Weymouth was sent out to Maine by the Earl of Southampton, Lord Arundel, and others; and in the narrative of their discoveries, he says:—‘The next day we ascended in our pilgrimage, that part of the river which lies more to the westward, carrying with us a cross—a thing never omitted by any Christian traveler—which we erected at the ultimate end of our route.’ This was in the year 1605; and in 1842, I obeyed the feeling of early travelers; and left the impression of the cross deeply engraved on the vast rock, one thousand miles beyond the Mississippi, to which discoverers have given the name of Rock Independence.”

The above extracts express in appropriate terms the feelings and actions of our gallant and enterprising countryman; and which, perhaps, if we reflect that the cross is by many accepted as a symbol, were natural enough, under the circumstances.

I did not see upon the rock the tree of which Col. Fremont speaks. It had probably been blown down. I observed, however, a number of bushes growing, which had fixed their roots in the scanty soil, which

in some places filled up the interstices of the rock. Their general appearance was that of a gooseberry bush, although smaller; the fruit yellow, and in taste and color very much like a ripe persimmon. I found several of these bushes growing several miles in the rear of the encampment of this date; and I observed that they appeared to love to fix themselves into the interstices of immense rocks. Of these berries, the Tartars are reported to make a kind of *rob*.

Upon the western side of the rock, there was a space of about ten acres of smooth ground, upon a level with the plain, out of which the rock appeared to have been lifted, and surrounded by the rock on three sides, where the walls are about 120 feet high, and many hundred feet thick.

Mrs. Thornton and myself who were said to be "always either writing, or prowling about after weeds, and grass, and stones, and sich truck," started off on an "exploring expedition."

We went to a place about half a league west of Rock Independence, and immediately south of a large pond, in every way like the one I described as being on the left of the road, and one mile and a half from the rock, except that the bi-carbonate of potash seemed to be neither so pure nor so abundant.

The whole surrounding country was characterized by numerous places in every direction showing a white efflorescence of salts; to which a rapid evaporation—the great heat of the sun beaming down upon a soil entirely unprotected by timber, and having no outlet for the little water that falls upon it in the winter—without doubt contributed. The ground was barren, descending toward the pond, and having upon it a

great number of bushes of the *artemisia tridentata*, or wild sage, that filled the air with a scent of camphor and turpentine. My observations at this place, as also all along after leaving the south branch of the Nebraska, convinced me that the barrenness of the country is produced by the extreme dryness of the climate, and not by the geological formation of the region.—(Mercury at sunrise, 59°; sunset, 58°.)

July 10.—We resumed our journey. Mrs. Thornton and myself lingering some time to look again upon the immense rock, which seemed to lift itself out of the plain to so great a height, that we could but gaze upon its majestic figure with something of awe and wonder.

The following remarks of Mr. John Torrey, Botanist, in his preface to the "Catalogue of Plants, collected by Lieut. Fremont in his Expedition to the Rocky Mountains," in 1842, will degree illustrate the botany of the country between Rock Independence and the junction of the two main branches of the Nebraska:—

"The route along the north fork of the Platte" (he ought to have called it by its appropriate Indian name, Nebraska, or Shallow River), "afforded some of the best plants in the collection. The *senecio rapifolia*, Nutt., occurred in many places, quite to the Sweet Water; *lippia (zapania) cuneifolia* (Torr., in James's Plants, only known before from Dr. James's collection); *cerocarpus parvifolius*, Nutt.; *erigonum parvifolium* and *cæspitosum*, Nutt.; *sheperdia argentea*, Nutt., and *geranium Fremontii*, a new species (near the Red Buttes), were found in this part of the journey. In saline soils on the upper Platte [Nebraska], near the mouth of the Sweet Water, were collected several interesting *Chenopodiaceæ*, one of which was first

discovered by Dr. James in Long's Expedition; and although it was considered as a new genus, I did not describe it, owing to the want of the ripe fruit. It is the plant *Flora Boreali Americana*, of Bates. He had seen the male flower only. As it is certainly a new genus, I have dedicated it to the excellent commander of the expedition, as a well merited compliment for the services he has rendered North American Botany."

We proceeded on our journey over a high and rocky ridge, about eight miles, when we encamped on the right bank of Sweet Water River, one mile and a half above the Devil's Gate. This place, with so ominous and forbidding a name, I visited with Mrs. Thornton, having to assist her across the stream, which at this season of very low water was about two and a half feet deep.

Of the varied scenery for which the surrounding country is so much celebrated, I regard this particular locality as presenting views so exceedingly picturesque, that it is felt at once to be more grand, and at the same time more beautiful, than any other collection of objects within the whole compass of vision. Before entering this enchanting spot, the change is instantly realized as being powerful and striking. The emigrant covered with dust, has been traveling over a long and dreary way, where every object before him presented the same ashy hue of desolation. He descends a long slope; and at length enters upon this interesting spot, where he can not fail to recognize and feel the sudden change of scenery from that over which he has passed, and to observe the remarkable contrasts in the different portions of that which surrounds him. The valley is about five miles wide, and is bounded by wooded mountains, on the south, rising to the height of two

thousand feet. An arid, barren, and sandy plain, having little growing upon it except *artemisia tridentata*, which has become odious and hateful, from the circumstance of its being always seen—and always connected with sterility—presents the appearance of a brown heath, stretching off from near the right bank of the river, to the foot of the desolate-looking mountains on the south. Crossing over the several waters to the left bank, about ten miles above the encampment, this brown heath and sandy plain is exchanged for rich meadows, from the greensward of which broken and granitic masses rise abruptly in sterile grandeur to the height of fifteen hundred or two thousand feet, terminating in a line of broken summits. Their heads are not covered with mountain ash, nor are their gray sides harmonized by mosses, lichens, and yew-trees. But, except in the crevices of the stupendous rocks, and here and there on a ledge, where a few hardy pines have clustered together, they are totally destitute of vegetation. They are precipitous, and bear on their sides fragments of rock, which in the distance look much like the ruins of edifices, but seen nearer, are found to be isolated masses in the shape of pyramids, that have either fallen down or are rising up from the plain, amidst deep verdure, and a profusion of flowers. After proceeding a short distance down, along the foot of this immense ridge of rock, a deep and narrow valley opens out upon the river; although the eye is prevented from penetrating it by its irregular and devious windings, which so shut in the sides upon each other, as to render a distant view impossible. Pursuing our way down the base of these mountains of granite, a beautiful little valley comes down from the country above, and opens upon

the river at the foot of an isolated hill. A small stream flowing through the plain, sometimes wandering close along at the foot of the precipitous mountains, and then winding away from it in a serpentine manner, to the opposite side of the meadow, contributes to diversify the scenery of this charming locality. The verdure and flowers on each of its banks are in pleasing contrast with the naked sublimity of the rock upon the north side of it, and the sandy plain which spreads out from near the right bank to the forbidding looking mountains upon the south.

Following down the stream, it becomes more rapid, and at length noisy, as if resolved to acquire a sufficient degree of momentum, either to leap over, or to dash through the precipitous granite mountains, that present an obstacle to its passage to the plain beyond. Now, angry, noisy, and resolved, it dashes in terrible fury against the side of the opposing masses; anon, it forces for itself a passage three hundred yards in length, and thirty-five in width, between vertical walls four hundred feet high; and then leaving the place almost entirely choked up by immense fragments of rugged, dissimilar, and frequently grotesque and fancifully appearing fragments that have been thrown down in the struggle, it passes on, and away through the plain beyond, leaping and shouting like a young giant rejoicing in his strength. The rocks which inclose and fill up the passage are forced and scattered; they now uncover their heads in the clouds, and overhang the dark recesses of the narrow passage thus rent, and look down into it, frowning in craggy grandeur upon the fallen and broken masses beneath.—(Mercury at sunrise, 51°; sunset, 68°.)

July 11.—Traveled fifteen miles over a road not quite as sandy as some over which we had passed. The day was very warm, and we were all grateful for rest, when about an hour before sunset we encamped on the bank of the Sweet Water, which wound close along the foot of an immense naked granite rock, or rather mountain, in all respects like that immediately above the Devil's Gate, and presenting, as that did, a precipitous face, many hundred feet high. We pitched our tents on a narrow strip of land lying between the stream and the rock. Its shadow was long, and truly grateful to the worn travelers who reclined at its base upon the grass, or busied themselves with the ordinary camp duties. We used, as usual, drift-wood and *bois de vache* for fuel. We had but little grass. Noted several cacti, and found a number of very fine specimens of Cornelian.—(Mercury at sunrise, 44°; sunset, 61°.)

July 12.—*Sabbath.*—We resumed our journey, and at noon encamped on the bank of the river, near the companies of Messrs. Dickinson and West. Most of the men went out to hunt bison.

In Mrs. Thornton's journal I find the following:—
 "I now write entirely alone, with no eye upon me but that of the great God. As this little river flows gently by, and waters and refreshes the dry and parched valley, so may his grace flow in upon my thirsty spirit, which longs for my Saviour as does the panting hart for the cooling stream. This is a journey that tries the temper and disposition, no less than it does the bodily frame. Dear Saviour, be very merciful to us, and give us wisdom and grace according to our necessities. And may they be to us as a well of water springing

up unto everlasting life. O, let thy presence and blessing be with us through this day, and through life."

Scattered over the plain along which our road conducted us, were several small isolated hills, consisting of marl and white clay, in horizontal strata.—(Mercury at sunrise, 41°; sunset, 70°.)

July 13.—We made an early start, and drove twelve miles, until 3 o'clock, when we encamped on the river, about two miles from the main road. Grass was neither good nor abundant. The day was warm and dry; and the roads continued dusty and sandy.—(Mercury at sunrise, 56°; sunset, 80°.)

July 14.—We resumed our journey at an early hour; and after traveling twenty miles over a moderately good road, encamped on the left bank of the river, at a place one mile from the road. The Wind River chain of mountains was in view, appearing in many places to be covered with snow, while in others the mountains towered up in vast irregular masses, formed into a serrated line of broken and jagged cones.

Some of the company found during the day a large pond of salt water, the margin of which was thickly encrusted with pure muriate of soda. I observed a species of pea, which resembled the lilac in appearance and color.—(Mercury at sunrise, 57°; sunset, 68°.)

July 15.—We remained in camp. The day was cool, and rainy at intervals. There appeared to be a heavy snow-cloud upon the Wind River Mountains.—(Mercury at sunrise, 55°; sunset, 62°.)

July 16.—We left camp with the rising sun. The morning was clear, but disagreeably cold. At 10 o'clock we halted in an open plain, at a place where the Sweet Water is shut up between high, perpendicu-

lar walls of rock. This is, therefore, the head of the valley, which, commencing about one hundred and twenty miles below, with an average width of about five miles, and bounded on both sides by granite mountains, here terminates.

The following extract from Mr. Torrey's preface, already quoted, will be interesting to those desiring general information upon the subject of the botany of the Sweet Water Valley.

"Along the Sweet Water, many interesting plants were collected, as may be seen by an examination of the catalogue. I would, however, mention the curious *ænothera*, *Nutallii*, Torr. and Gr.; *euratia lanata*, Moey (*diotis lanata*, Pursh.), which seems to be distinct from *E. ceratoides*; *thermopsis montana*, Nutt.; *gilia pulchella*, Dougl.; *senecio spartioides*, Torr. and Gr.; a new species, and four or five species of wild currants (*ribes irriguum*, Dougl., &c.). Near the mouth of the Sweet Water was found the *plantago eriophora*, Torr., a species first described in my 'Dr. James's Rocky Mountain Plants.' On the upper part, and near the dividing ridge, were collected several species of *castilleja*; *pentstemon micrantha*, Nutt.; several *gentians*; the pretty little *androsace occidentalis*, Nutt.; *solidago incana*, Torr. and Gr.; and two species of *eriogonum*, one of which was new."

The grass was good and abundant. I saw the common blue flax here, and Mrs. Thornton found some ripe strawberries. Capt. Fremont encamped at this place August 12th, 1843. His barometer placed the elevation at 7220 feet.—(Mercury at sunrise, 52°; sunset, 40°.)

July 17.—The little company with which I had been traveling having left camp, I remained until Ex-Gov.

Boggs came up, about 10 o'clock, with some sixteen wagons, when I joined his company, and we ascended on our right to a high and somewhat broken prairie, or rather open country, upon which we encamped at 6 o'clock, at some distance from the river, near a small stream. The day was very cold, in consequence of the snow upon the Wind River Mountains. We had seen the snow falling upon these mountains for several days. The snow line was now distinctly seen; and the mountains looked beautiful as their grand white peaks glittered in the sun. We had often imagined that we saw the snow peaks, but they had certainly been partially hidden by the clouds that lowered there, while the rain fell at intervals in Sweet Water Valley.—(Mercury at sunrise, 47°; sunset, 46°.)

July 18.—We resumed our journey, and traveled over a high and dry ridge, that in most places was totally destitute of vegetation. At noon we came down into an open valley, through which the Sweet Water flowed in a clear, beautiful, and swift mountain stream, that was now beginning to lose itself in the many small branches that made its head. Upon its banks were trees of beech and cotton-wood, of small growth. We nooned at this place, and then forded Sweet Water for the last time, and took leave of the waters running toward the home of our childhood and youth. We began to ascend by a very gradual elevation, along a road that led us through a desert of upright stones. The face of nature changed; the grass entirely passed away, leaving nothing but everlasting gray rocks, that lifted up their forms out of the soil in naked sterility, or were but imperfectly covered with artemisia. Here the tempests of six thousand years had beaten. Dark clouds were frequently

rolling over, and then the sun would come out and seem to smile; while the white snow shone above the snow line, along the Wind River chain of mountains, some of which rose a thousand feet into the region of perpetual frost. Every thing seemed to have undergone a change. There was a gloomy vastness in the distant prospect, and an awful solitude in the immediately surrounding scene; a sense of which, when associated with the conviction that we were about to drink of the waters that flowed into the great Pacific, made the day one of the most melancholy of my life.

The temperature, the atmosphere, and the heavens, seemed to have changed. We had, almost from the time of leaving the Wokaruska, been slowly toiling with our teams, over vast plains, up high hills, and along sandy valleys; yet still, upon the whole, mounting and bending up, and up, and up. But this was a fact which, although known, had not yet been felt. Now, we seemed fully to comprehend that we had indeed ascended to the region of the clouds. Then these dark masses, that rolled gloomily over our path, finally disappeared, and far below we beheld scenery sublime and grand, that appeared to gleam up awfully through wild depths of azure. High, rugged, cold, blue mountains towered far up on either side, into a region where all save the voice of the storm is hushed, where all is cold and chill; and where the mountains wrap around them the drapery of the clouds, and cover their heads in mist.

The ascent to the top of the pass is so gradual that it is somewhat difficult at first to fix the culminating point. We had approached it from Rock Independence, over a gradually ascending plain, one hundred and twenty miles in length, and our road conducted us

to the summit by an ascent so regular that we did not, upon arriving at it, realize at first the elevation to which we had attained. It is, therefore, in this peculiarity entirely unlike the winding ascent by which the traveler toils up the Alleghany. The pass itself is generally a smooth champaign country, about nineteen miles wide, commencing at the rough, broken ground, at the foot of the Wind River Chain of Mountains, and terminating at Table Rock, where the rough and broken country may be said again to commence.

As we journeyed through the pass, I saw several oxen that had died. Poor old Brady dropped down in the team, and I was compelled to tell Albert to take his yoke off, and to drive forward, and leave him by the wayside to die. A little after sunset, we arrived at a small stream, which takes its rise in a spring near at hand, known as the Pacific Spring. It is a tributary of the Green River, or Colorado of the West, which empties its waters into the Gulf of California. The night was clear and cold; and if I may form an opinion from the howling, the place was "mighty wolfy." The soil upon the plains, in the vicinity of our camp, was sandy.

From Fort Laramie to this plain, the prevailing characteristic plants were the different species of the artemisia, which generally took the place of the grasses, and filled the air with the scent of camphor and turpentine. This South Pass possesses great interest when we come to observe that in its immediate vicinity the Colorado, the Columbia, the Missouri, and the Nebraska have their sources. Between Fort Laramie and the South Pass, the snow usually continues, during the winter, about three months; and is from

fifteen to eighteen inches in depth.—(Mercury at sunrise, 52°; sunset, 51°.)

July 19.—Sabbath.—I proposed returning upon the road of the previous day, for the purpose of seeing if poor old Brady still lived, and if possible, to provide for him a little grass and water, and to do whatever else humanity, or a strong attachment to a faithful ox, might suggest. Some of the emigrants remonstrated with me against the enterprise, affirming that I could do nothing for him, and that, in addition to this, I would also be exposing myself to the savages; for they declared, that the locality at which he had been left was “a mighty pokerish-looking sort of a place.” However, after the company had all resumed their march, I returned; but the poor fellow was dead, and the wolves had already commenced devouring him. I found, on my way to overtake the emigrants again, several Cornelians, a number of beautiful pieces of variegated marble, and a small fragment of granite, containing magnetic iron ore, in a sort of wash from the mountain-side. I came up with our party again about noon. We traveled over a desolate, undulating, and sandy country. The air was filled with the scent of the artemisia, and loaded with clouds of drifting sand and flying dust. Near the close of a day of toil and discomfort, we encamped on Little Sandy, which is a small stream of clear water, about three feet deep, and forty or fifty feet wide, running with a swift current over a sandy bottom, and finally discharging itself into the Colorado, or Green River of the Gulf of California. Upon each side there were dense groups of tall willows, and an undergrowth so thick as to make it almost impossible to pass through. The idea of hiding among the close and thick-leaved

willows, here got into the heads of Star and Golden, the two greatest rogues in my team; and they in consequence gave my driver, Albert, some trouble to find them. All of my other oxen were honest and steady, that is to say Sam, and John, and Nig, and Tom were tolerably honest; while Dick was in all respects faultless. I never knew him to be guilty of a mean thing, or to skulk out of the way, when he knew that his old friend needed assistance. But upon the subsequent parts of our journey this became a favorite trick with Star and Golden. They would be seen feeding until near the time for "catching up," when suddenly they would be missing—in fact, they would be nowhere. Frequently afterward, when I had not a better driver than myself—not even Albert—or, worse still, my Dutchman, David, I have hunted for these oxen through every part of a thicket, as I believed; and would be about to give them over, as having been driven away by the Indians, when I would suddenly see them, not, perhaps, above fifteen feet from me, standing perfectly still, and looking directly at me. And when they saw that they had actually been discovered, they would of their own accord march out, with the most perfect alacrity and good-nature, and by their looks and actions, would plainly enough say, "Good-morning, good-morning. Oh, I am so glad to see you. You do not suspect us of hiding here?" Being thus fairly caught in their tricks, these rogues would go directly to the *kraal*, and wait patiently for me to yoke them.

A large number of Oregon and California emigrants encamped at this creek, among whom I may mention the following:—Messrs. West, Crabtree, Campbell, Boggs, Donners, and Dunbar. I had, at one time or

another, become acquainted with all of these persons in those companies, and had traveled with them from Wokaruska, and until subsequent divisions and subdivisions had separated us. We had often, since our various separations, passed and repassed each other upon the road, and had frequently encamped together by the same water and grass, as we did now. In fact the particular history of my own journey is the general history of theirs. This fact is mentioned now for reasons which will more fully appear hereafter. I shall, after having noted the principal events of our journey, again introduce the reader to some of these emigrants, for the purpose of enabling him to acquaint himself with the events connected with their journey from this place into Upper California. I shall, therefore, dismiss them here, with the remark, that the greater number of the Californians, and especially the companies in which George Donner, Jacob Donner, James F. Reed, and William H. Eddy, and their families traveled, here turned to the left, for the purpose of going by the way of Fort Bridges, to meet L. W. Hastings, who had informed them, by a letter which he wrote, and forwarded from where the emigrant road leaves the Sweet Water, that he had explored a new route from California, which he had found to be much nearer and better than the old one, by the way of Fort Hall, and the head waters of Ogden's River, and that he would remain at Fort Bridges to give further information, and to conduct them through.

The Californians were generally much elated, and in fine spirits, with the prospect of a better and nearer road to the country of their destination. Mrs. George Donner was, however, an exception. She was gloomy,

sad, and dispirited, in view of the fact, that her husband and others could think for a moment of leaving the old road, and confide in the statement of a man of whom they knew nothing, but who was probably some selfish adventurer.—(Mercury at sunrise, 46°; sunset, 52°.)

July 20.—The previous night having passed away cheerfully and pleasantly, we all resumed our journey; our California friends turning to the left, and we continuing along the right-hand road, over a country, the face of which was a brown sand—the granite detritus of the mountain in the vicinity—until 3 o'clock, when we encamped on an open, grassy plain, on the banks of Big Sandy, which is another tributary of Green River. Blocks of granite, containing magnetic iron, were seen on both sides of our road. The escarpments along the creek showed a formation of party-colored sand. We had an abundance of good grass. Our fuel was drift-wood, *bois de vache*, and artemisia; the latter of which, burning with a quick and oily flame, made a very hot fire, and was always acceptable, when sufficiently abundant.—(Mercury at sunrise, 48°; sunset, 58°.)

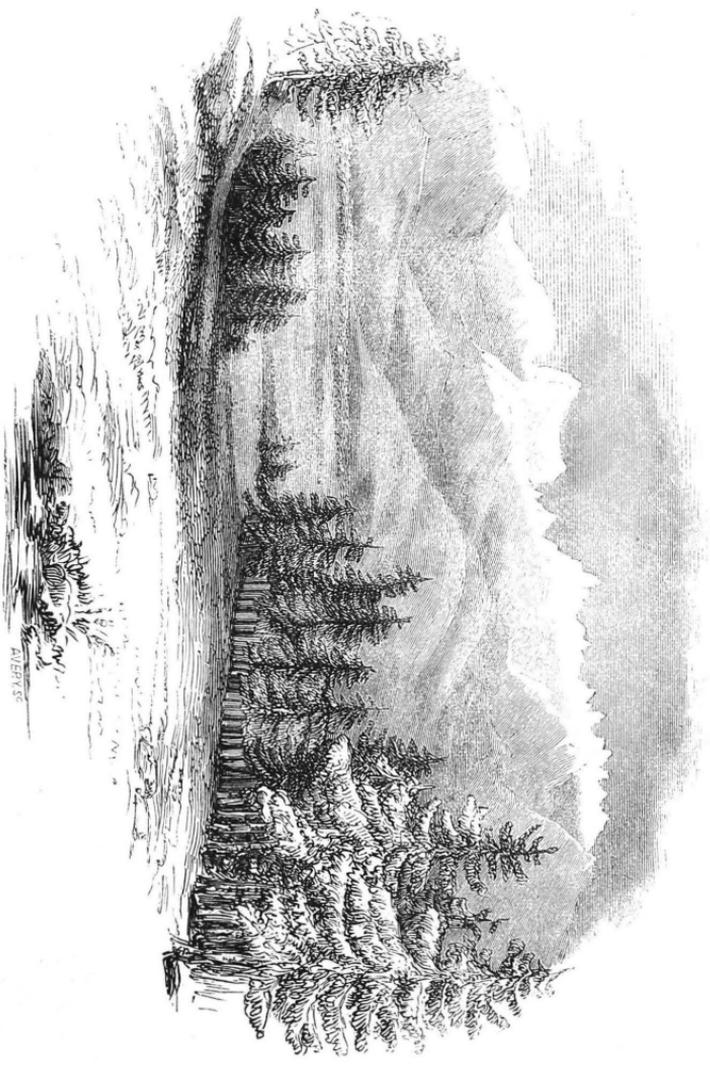
July 21.—We remained in camp for the purpose of recruiting our cattle, previous to our entering upon a forty-mile, dry drive, known as Greenwood's "cut-off," which commences at this place, and terminates at Green River. The night and morning very cool. The soil of the plain in the vicinity of this camp is fertile; but that of the surrounding country consists of dry barrens, and, principally, of brown sand, the product of decomposed granite.—(Mercury at sunrise, 32°; sunset, 66°.)

July 22.—We set off upon our dry drive of forty miles at an early hour, having filled our kegs with wa-

ter before starting. The country over which we traveled was a lofty sand-ridge. The wind was very high, and the clouds of dust and sand seemed at times to threaten us with destruction. The country was in most places so perfectly destitute of all vegetation, that it is doubtful whether even a cricket could live in such a desert. The road conducted us over a country generally level, and having nothing to break its dull uniformity, but thick clouds of drifting or whirling sand. The air was cool, but, altogether, the day was the most unpleasant one we had passed through. Our company traveled twenty miles and encamped, a little before sunset, near some ravines, in which there was a very little dry grass. The cattle were loosed from their yokes, and turned upon this until near dark, when they were gathered in and *kraaled*. During the day I gave to each of the oxen one quart of water, and two quarts to one that seemed to suffer most. The only agreeable feature of the scenery was the Wind River Mountains, the lofty snowy peaks of which, looked pure and beautiful, but cold, as they glistened in the rays of the sun.—(Mercury at sunrise, 36°; sunset, 56°.)

July 23.—The company rose at 30 minutes past 2 in the morning. A hasty breakfast was prepared and eaten; after which we resumed our journey at 4 o'clock. Many of the party were sick, in consequence of the dust. The road during this day was very hilly and dusty, but happily for us, the air was cool and calm. At 3 o'clock, P.M., we arrived at Green River, and after crossing over, encamped on its banks, some distance below the place of crossing. Several other companies were also encamped at the same place.—(Mercury at sunrise, 27°; sunset, 64°.)

WIND RIVER MOUNTAINS.



WIND RIVER

CHAPTER VIII.

GURNEY FROM THE GREEN RIVER TO THE FIRST ENCAMPMENT WEST OF FORT HALL.

GOVERNOR BOGGS, Wm. Boggs, Mr. Crump, and myself united ourselves to a company led by William Kirquendall. We encamped on the evening of Saturday, July 25th, about three miles below our encampment when we first came to Green River, on a beautiful little tributary of that stream. Our old traveling companions, the Messrs. Boone, Norris, Vanbebber, and Luce, remained behind.—(Mercury at sunrise, 40°; sunset, 64°.)

July 26.—Sabbath.—This day I was thirty-five years, eleven months, and two days old. I had never yoked an ox; but I was now about to commence driving my own team. How I should succeed in getting the cattle into the yokes, or attaching them to the wagon when yoked, or in driving them when thus attached, were questions, the answers to which were not comprehended in my philosophy. In short, they were subjects of “great medicine.” But I resolved that, with the blessing of God, I would not permit my energy to be broken, nor my spirit to be saddened by misfortune, but looking to the Strong for help, and to the Wise for wisdom, go right forward, with a courage, resolution, and cheerfulness, too, which my circumstances seemed not to admit. I was in bad health when I started, and was much worse at this time, having frequently spit

blood. I remembered to have learned that the most valuable part of a man's education is that which, under the influence of an active and energetic character, he receives from himself; and thus makes amends for the want of one more regular and finished in early life. I had great confidence in my spirit; but I had some doubts, as to the flesh-and-blood, bone-and-muscles, part of the business. But I will inform the reader that I now entered upon a "course of study," in which I combined "theory with practice" every day, until I think I might have passed a very respectable examination before a board of teamsters, and have taken the degree of O.D., which means not Oh Dear! but Ox Driver.

The reader will now keep in mind that from this point I drove my own team, and, therefore, had no time to go "prowling about after weeds, and grass, and stones, and sich truck." Although the daily journal entries were regularly made, yet they are, from the above cause, necessarily less full.

We resumed our journey, crossing several tributaries of Green River, and passing over a very dreary country, which seemed to have very little vegetation other than artemisia, except along the streams, where the grass was tolerably abundant. About 2 o'clock we crossed a stream; and finding there no other place suitable for a camp, we proceeded forward over an exceeding hilly and dusty country, until 10 o'clock at night, when we found water and grass. The day was one of severe toil, and the night was spent in pain and prostration. Slept a little before daylight.—(Mercury at sunrise, 46°; sunset, 72°.)

July 27.—I woke soon after daylight with a sense

of weariness and exhaustion, such as I had never before felt. The company, however, were very kind, and one of them, Mr. Perkins, assisted me to yoke the oxen, which he did with a willingness and kindness of manner, which, showing that my evident want of experience and physical strength excited his sympathy, filled my heart with gratitude to him. This man frequently aided me to yoke the cattle. I shall never cease to feel a grateful sense of my obligation to him for his ready and prompt assistance. We traveled over a rough country, ascending and descending two very high hills, mountains, in fact. The side by which we ascended had a small growth of quaking asps. A spring of clear, cold water, was found among the quaking asps on the left of the road, and near the top of the last mountain. The following is from the journal of Mrs. Thornton, under this date:—

“One of the greatest evils of the road for the last month has been the dust. Eastern Oregon, thus far, exceeds in dreariness and sterility any country I have seen. I hope I shall never see such another. The nights and mornings are becoming very cool. We had ice almost every morning last week. The days can scarcely be said to be hot. This is mainly owing to the winds. We encamped on a small creek passing through a little valley between two mountains, one of which we shall ascend in the morning. Performed the camp labor all myself—Mr. Thornton being so tired and faint. Got to bed about dark, and slept tolerably well all night.”—(Mercury at sunrise, 48°; sunset, 64°.)

July 28.—The morning was cold and clear. We had ice one-eighth of an inch thick. I felt much better,

and nature seemed to have risen with a sort of recuperative energy. Not having a Xerxes to write to the Athos before us, to get out of our way, and not being able to get out of its way, or go around it, we set about getting over it. I have observed in my journey through life, and in more than one instance, whenever any formidable obstacle interposed itself between me and the object I was endeavoring to arrive at; and that obstacle would neither get out of my way, nor be avoided, that it was never best to sit down, upon a rock at the foot of it, and waste time in whining; but that true wisdom always admonished me to take my staff in hand, and press forward with resolution and courage, until I got over it. In short, I have long since learned that it is both a foolish and an absurd piece of business for a man, if he have any brains, to beat them out at the foot of a mountain.

The mountain was steep and high, but all got up in safety. Mr. William Kirquendall, in a very kind and obliging manner, proposed driving my team for me, along and over a narrow ridge, near the culminating point, from which the descent was very gradual. To this gentleman I also feel greatly obliged. Now that I am writing, the many instances in which he assisted me, to drive my team, when I was really almost dead with asthma, comes up before me, with a vividness that fills my heart with gratitude.

Near 12 o'clock we came up to where a company of emigrants were about to bury Mrs. Campbell, who died at sunrise on the morning of this day. Our company halted, and as many as could leave the teams joined in the solemn procession. Sympathizing travelers, though covered with the dust of a toilsome way,

mingled their tears with those of the bereaved husband. Her body was committed to the dust in the wilderness, more than a thousand miles from the abodes of civilized men; and I fancied as I saw the stricken survivor turn away from the lowly bed of that dead wife, to resume the toil of his yet long, arduous, and perilous journey, that he seemed bowed down by the sorrows that pressed upon his heart. His dejected look seemed to tell that the loving eye which had often brightened at his approach, even in her last painful and protracted illness, would beam on him no more; that he would never again on earth hear the sweet music of her voice—the voice of the mother of his children; never more would she inquire into his cares and toils, or whisper an encouraging or affectionate approval of his efforts, or, indeed, evince her wonted willingness to share them with him. His hand, ever ready to anticipate and minister to her wants, would never again press with tender care that aching head, which now ceased to feel exhaustion, pain, and disease. Her calm and peaceful spirit was gone, and there remained nothing to him to fill the painful void, or to assuage the deep sorrow of his almost bursting heart, but the pleasant remembrance of her gentle purity, sweet humility, wisdom, and generous and devoted affection. Her sweet expression of face, which was wont to diffuse all about her sunshine and smiles, and the heavenly radiance of her own lovely and beautiful character, were to beam upon him no more.

A community sustains more than an ordinary loss in the death of a valued mother—one who has been intrusted with the rearing of children, and to whom Heaven has committed their instruction. Upon the

proper discharge of her duty, while conducting her interesting charge through the years of childhood and youth, and fortifying it for encountering the rough scenes and the "battle of life," or arming it with the great principles of virtue and religion, depend both its present peace and future happiness. When, therefore, I see one of these faithful and affectionate teachers of God's appointment go down to the narrow house appointed for all living, I can not but feel, that however humble and unobserved she may otherwise have been, the nation has thereby sustained a real loss. Mrs. Campbell terminated here her painful pilgrimage. Her wanderings had ceased; the weary traveller was at rest; and we turned away from that lone and far-off grave, sadder than when we came; and, as I hope, better for the reflections suggested by the solemn scene.

Slowly, and in silence, we resumed our journey. The face of the country assumed a more cheerful and agreeable aspect, in the valley in which we were now traveling. We found numerous groups of small timber, which was principally quaking asp. The soil began to appear more fertile. The sides of the hill were covered with a beautiful species of pine, which was new to me, and known, I believe, as the Cone or Sugar Pine. Early in the afternoon, we ascended a mountain of considerable but gradual elevation, the side of which was covered with pine and quaking asp. We continued along the ridge about one mile, when we entered upon a very long and exceedingly steep and difficult descent down the naked side of the mountain. The wheels were all locked. The cattle were then taken away from the wagon, except the wheel yoke, which was left not to pull the wagon, but to hold it back,

and to guide the tongue; for the wagon otherwise would have been dashed to pieces. Mr. Crump's carriage was overturned, and although *its* top was most thoroughly broken in pieces, yet providentially *his* top was not broken at all, and in fact was none the worse for the occurrence, except that the hair upon it was filled with sand and gravel, which Mrs. Crump, in due time, made him shake out. Mr. Wm. Kirquendall and Mr. Burns very obligingly drove my oxen, with the wagon, down the mountain. We then passed over into a small valley, where we encamped one hour before sunset.—(Mercury at sunrise, 56°; sunset, 74°.)

July 29.—We traveled twelve miles, and at 4 o'clock encamped upon Bear River, in a lovely and interesting valley. When our cattle were turned loose to feed upon the dry grass, our white tents pitched, and the smoke began to ascend lazily from our camp-fires, around which our wives were gathered, busy in preparing the evening meal—a pleasant picture of great pastoral beauty was presented. The common blue flax grew very luxuriantly in the vicinity of the camp.

We saw two or three Snake Indians approaching the road in the morning. They did not, however, come to us. One of this tribe came into camp in the evening. He was tolerably well clad, but had nothing in his mien and bearing of that dignity and nobleness which some persons of a lively fancy imagine they see in Indians. The atmosphere was very smoky, in consequence of the grass in the valley and upon the hills having been fired by the Indians. The day was pleasant, and there was much in it that reminded me of that delightful season known in the States as the Indian summer. It was, indeed, no more than the 29th

of July, but the grass was dry and crispy, the atmosphere was smoky, and even where there was no smoke apparent, it had a peculiarly yellowish hue. The sun seemed to shine with a light more than half subdued and softened; and every object presented the appearance of the early advance of autumn. The heat of summer had passed away in fading green. Sights and sounds the most beautiful and attractive had come, with the agreeable coolness which, in the evening, succeeded the pleasant warmth of the day. The gentle winds, as they stole among the boughs of a neighboring grove of quaking aspens, that stood clothed in partially faded and changing green, scarcely disturbed, by their low rustling, the silence of the delicious shades below. The waters of Bear River, moved sluggishly along, reflecting in magnificence the rays of the declining sun. The mountain trout were ever and anon springing out of the clear water, at insects in the air, or were seizing those that floated upon the smooth surface. The sun, at length, sunk behind the mountains, amidst a rich and gorgeous blending of light, and shade, and colors, such as no painter's skill could imitate, and which it is almost impossible for the imagination to conceive; which, at least, none but the great artist can repeat. It soon settled down into a peculiarly soft and transparent twilight. The stars came out, and twinkled far above upon the canopy of heaven, in a manner that suggested the idea that they were the abodes of the sinless and blessed. And here, majestic nature, though in solitary grandeur, swelled my heart with grateful emotions of religious enthusiasm. The shades of night having spread over hill and valley in one direction, and the boundless landscape in an-

other, so as to render indistinct such objects as were a little remote, yet not so as to conceal the general scene, the prairie was lighted up into a supernatural brilliancy, by the distant glare of spreading fires, where all was silent, but the crackling of the flames, and beyond which all was as black as the darkness of death. The blazes extended across the valley, and having soon reached the long line of high hills upon the opposite side of Bear River, crept along the top, their dark and heavy outlines gleaming brighter and brighter, until a fiery redness filled the large ascending volumes of convolved and curling smoke, that now rolled on eddying winds, and towered to the clouds. The fire spread, and widened, and ran along down the opposite side of the high hills, and then back, until it appeared shooting up its flames into the air, first in one place, and then in another, along the outlines of the hills that stood up boldly against the horizon, until there rolled along their whole length a vast sea of angry billows of smoke, and flame, and crackling fire, and burning spray.—(Mercury at sunrise, 59° ; sunset, 73° .)

July 30.—We traveled over a beautiful country, having good soil and water, and an abundance of grass and some timber. Early in the afternoon, we encamped on a tributary of Bear River, where we had good grass for our cattle, and an abundance of willow for fuel. Soil fertile. Blue flax grows all over the bottom lands.—(Mercury at sunrise, 58° ; sunset, 72° .)

July 31.—We left the river valley in the morning, and after ascending and descending another difficult mountain, came down again into the valley of Bear River, where we encamped on a creek, an hour before sunset, having traveled fifteen miles. We felt the heat

to be more oppressive than we had before experienced since we entered upon our journey.—(Mercury at sunrise, 61°; sunset, 78°.)

August 1.—The morning was very pleasant, but as the sun ascended, it seemed to acquire strength, and the heat became oppressive. The dust of the roads, which were otherwise good enough, greatly added to our discomfort. We traveled until near sunset, when we again encamped in the beautiful valley of Bear River. The soil was fertile, and the grass both abundant and good. We obtained fuel from a group of dead quaking aspens. Mrs. Thornton and myself were more completely exhausted than we had been at any time before. At night, the heavens were overcast with clouds that threatened rain, and the wind rose, and blew with great violence upon our tents.—(Mercury at sunrise, 61°; sunset, 70°.)

August 2.—*Sabbath.*—We were both very unwell. We traveled through a most interesting valley, but the roads were very dusty, and the winds high. About three miles before reaching our noon halt, I found several specimens of scoriated basalt. We nooned on a small tributary of Bear River, at a spring of cool, pleasant water, where we found an abundance of high, fresh, and nutritious grass. After an hour's rest and refreshment, we resumed our journey, and after traveling three miles, turned to the right, and encamped at a place which the company, like many others, mistook for the locality of the far-famed Soda Springs. It was, in fact, in the same basin where these springs were situated, and there were many small springs of the general character of those which are most particularly known as *the Springs*. In the immediate vicinity of

this camp were many small elevations, and two large ones, each probably fifty feet high, composed of a white calcareous substance, to the summits of which springs, of a strongly marked mineral character, bubble up in columns of suffocating gas, which escapes from the water, and leaves it to flow down the sides of the conical elevations, where it leaves a deposit, resembling water whitened and thickened, by an admixture of lime. The sides of these cones were in some places discolored with what I supposed to be the oxyd of iron. The liquid, which in some places flows down, is of the color and consistency of water, made so thick with lime that it is only fluid, and makes a deposit, which, in time, forms a crust. Mrs. Thornton, in attempting to pass up the side of one of these elevations, felt it rise and fall very much beneath her feet; and fearing that she might be precipitated into unknown depths; and, as I was not present to assist her in the event of an accident, she feared to advance, and therefore returned. At the bottom was a spring, the water of which had a slightly acid and salt taste. Great quantities of suffocating gas were constantly bubbling up, with a hollow, rumbling sound, and disengaging itself from the water. I observed many places where, although there was no water, and no opening in the ground, yet a hollow rumbling, gurgling sound was heard below. An opening, about two feet deep, was made at one of these places, into the bottom of which came about six inches of water, which immense quantities of gas constantly escaping, kept in a state of agitation, like the boiling of a pot.—(Mercury at sunrise, 60°; sunset, 72°.)

August 3.—We drove one mile and a half, and en-

campea at the most remarkable group of soda springs. The ground in many places emits a hollow sound, upon receiving the tread of the feet. In the rear of the locality of the springs are several thousand acres of a flat rocky tract. The flat rocks appeared to come just up even with the surface of the earth. They are seamed in every direction, with continuous cracks or fissures of unknown depth. These are filled with small fragments of rocks which once presented every variety of angles, but which are now in a great measure rounded off. I conjecture, that in the vast laboratories of nature, below the surface, immense quantities of gas were generated, which being confined, and continuing to increase, finally raised up the superincumbent mass of rocks, and thus made the fissures which we now see; so that the gas escaped into the atmosphere above, leaving the fissures partially filled with fragments of rock broken by the convulsions. In time, the causes which generated the gas in the first instance, probably operated to produce more, which violently escaping through these fissures, put in motion the fragments that filled them, and thus by attrition wore away their angles. This theory is rendered probable, if we consider, that the springs of every sort in the neighborhood of the place are continually sending up columns of gas. The bed of the river, for several hundred yards, is at all times violently agitated by the gas which is generated below being sent up into the atmosphere. The nose, applied to many of the dry fissures in the rocks in the vicinity, detects the gas at once. I saw at several places in the neighborhood upright cylindrical rocks, consisting of the white substance deposited by the evolutions of the waters at the conical elevations already described.

They were from two to four feet in height, and from twelve to eighteen inches in diameter. At the top, they were very concave. I saw one that was nearly filled with water kept in a violent boiling motion by the gas, which ascended through an aperture that extended through the center, down into the earth. This had evidently been formed by the gradual deposit made by the water. The fact that it did not then run over and flow down the sides of the cone, proved a subsidence of the water. There was another from which the water had wholly disappeared, but the gas still escaped through the central aperture. Here was a total subsidence of the water. Another still showed the central aperture, but there was neither boiling water nor escaping gas. One of these rocks was beaten down, and broken into fragments; as a curious boy takes in pieces his toy, that he may see the inside. I saw, also, two other places where I believed that similar rocks had stood, but which had been broken in pieces in a similar manner, and probably for a similar purpose. There are, likewise, in the vicinity many small conical elevations, and several large ones, in the apex of a few of which is an aperture, through which, in some instances, the water still gushed out, and ran down the sides of the cone, leaving upon them a white sediment, which has, without doubt, produced these singular formations, which look more like works of art, than of nature. Upon the apex of some of these cones, the water bubbled, but did not flow down, while upon others it showed only at long intervals a single bubble of escaping gas; others still showed no water whatever; nor could I detect in the slightest degree the presence of gas, although the concavity still remained upon the apex, and the central aperture was

still open, and extended down into the bowels of the earth.

These facts conclusively show, that these extraordinary springs have very much changed; they also render it probable, that they will ultimately change still more, if they do not entirely disappear. It is at least certain, that their existence is wholly dependent upon the gas, which owes its existence to the operation of causes I am not able to explain.

There are in the vicinity very many evidences of the former presence of a powerful volcanic action.

This is a place which I regard as presenting many inducements for the establishment of a military post and an agricultural settlement. The valley in which these springs are situated, is fertile and picturesque. The common blue flax is its characteristic plant. The grass is good and abundant. It contains the most extraordinary, and also the most pleasant springs in the world, and a visit to them is worth a voyage round the globe. The whole region presents scenery which excites extraordinary interest. The river which drains this valley flows into the great Salt Lake, which, besides being the salient point among the geographical features of the country, is the most remarkable inland body of salt water upon the globe. There are many circumstances which combine to render this important as a military position, with a view to afford protection to emigrants, and to form a nucleus around which to make a settlement. It is about half way between Independence, Missouri, and Oregon City, in Oregon; and also between the former place and San Francisco, in Upper California. The great South Pass, which is, in a qualified sense, in the vicinity of these remarkable springs,

being near twenty miles in width, and having an easy ascent, possesses an immense importance, as being the great thoroughfare through which the commerce and traveling between the Mississippi valley and the shores of the Pacific must pass. Following a hollow of easy descent, the emigrant road leads to the valley of Green River, or the Colorado of the West, a tributary of the Gulf of California. This remarkable depression, therefore, renders it comparatively easy to take loaded wagons over the Rocky Mountains. The extraordinary number and character of the springs will in time make it a place to which invalids will resort for health, and gentlemen of leisure and wealth, for pleasure. It has also great water power, in addition to cedar timber for fuel and for building purposes. The soil is not, indeed, so fertile as that of the Mississippi bottom lands, but it is, nevertheless, fertile. In a word, then, it may be affirmed, that the vicinity of these springs to the Great South Pass, which must ever continue to be the place at which the Rocky Mountains will be crossed; the fact that they are about half way between Missouri and Willamette Valley; the interesting scenery; the timber and soil, and the properties of its waters; all recommend the place of their locality, as being important for the establishment of a military post, and a producing settlement.—(Mercury at sunrise, 60°; sunset, 70°.)

August 4.—Our cattle had wandered so much that it was difficult for us to collect them again, and in consequence we were late in breaking up our encampment. Gov. Boggs remained behind to assist Mr. Crump to hunt his cattle. The valley through which we passed was generally sterile. We nooned at a point opposite

the Sheep Rock, one thousand feet high, where the road quits the valley of Bear River, and crossing a ridge which divides the valley of Bear River from the waters of the Pacific, reaches Fort Hall by the valley of the Portneaf River, at a distance of about fifty miles. Soon after our noon halt we passed a soda spring, and also another of ordinary water. The day was pleasant, but smoky, as usual. We crossed two small streams in the afternoon, and near sunset encamped at a third. Gov. Boggs came up with us, near dark. A few drops of rain frequently fell during the afternoon.—(Mercury at sunrise, 58°; sunset, 67°.)

August 5.—The day was pleasant. Rain fell in the afternoon, sufficient to lay the dust. Country broken and rocky.

August 6.—Passed over a desert, upon which nothing grew but the odorous and odious artemisia. One hour before sunset, we encamped within six miles of Fort Hall.—(Mercury at sunrise, 57°; sunset, 66°.)

August 7.—Near noon we arrived at Fort Hall. We purchased a few articles of supply at this place. Flour was \$40 a barrel, coarse brown sugar 50 cts. a pound, and all other prices were equally high. About 1 o'clock we resumed our journey, and after traveling eight miles, encamped on an open, grassy plain.

CHAPTER IX.

JOURNEY FROM THE ENCAMPMENT WEST OF FORT HALL TO THE APPLGATE CUT-OFF ON OGDEN'S RIVER.

Parthis mendacior.—HOR. *Ep.*

August 8.

THE company determined to remain in camp through the day, for rest and refreshment. In the forenoon one Jesse Applegate came into camp, and informed the company that himself and Colonel Nat. Ford had united together for the purpose of organizing a company of road-hunters; and that as a result, himself, Major David Goff, a brother-in-law of Col. Nat. Ford, Major Moses Harris, and Captain Scott, had led out a party of road-hunters from the Willamette Valley, for the purpose of exploring a new route, which should be both better and nearer than the old one to Oregon. I never could learn how it was that Applegate obtained the title of "captain," unless it was in some such way as that to which I once knew a "major" resort for the purpose of obtaining a supply of linen. *Captain* comes from the Latin *caput*, a head. But Captain Applegate has not enough head to make it appropriate to bestow upon him so great a title for the sake of a head which is not sufficiently large to be taken for the primitive of such a derivative.

Applegate affirmed the following things, among others:
1. That the distance to Oregon, via the Dalles Mission was from 800 to 850 miles. 2. That the distance by

his cut-off was estimated by him to be at least 200 miles less than that route. 3. That the party who had explored the new road with him, estimated it at even 300 miles nearer. 4. That the whole distance was better supplied with water and grass than the old road. 5. That it was not more than 190 or 200 miles to the point at which his cut-off left Ogden's River. 6. That the road was generally smooth, and, with the exception of a dry drive of thirty miles, well supplied with an abundance of good water, grass, and fuel. "These things, which now seem frivolous and slight, will prove of serious consequence:" and if the total absence of all truth in each of these affirmations affords any means by which to judge of the principles of the man making them, he may unhesitatingly be said to be *Parthis mendacior*.

The affair had an altogether too warlike aspect: here was Colonel Ford and Major Goff, and Major Harris, and Captain Applegate, and Captain Scott, in addition to majors, captains, and colonels, that I may have forgotten. I know not how it was, but, without being able to assign a very definite reason for my opinion, beyond that having its origin in the expression of the man's countenance, I did not confide in his statements. I suspected that he was influenced by some motive purely selfish. At the time, however, I could see no such motives, because I had no knowledge of local causes and influences operating in the settled portion of Oregon. In the absence of facts, strong motives did indeed occur to my mind, which I thought I saw might operate upon him to mislead. At least there was no apparent motive likely to operate upon him, if I rightly read the lines of his face, which had

for its object the welfare of the emigrants, aside from the success of some scheme for his individual advancement, and which might perhaps require for its success great pecuniary losses to the emigrants.

Ex-Governor Boggs is a gentleman in whose judgment I relied; and in this instance I most unhappily omitted to act from my own impressions and opinions. He unhesitatingly, and to the fullest extent, confided in the statements of Applegate; but, as we shall hereafter see, like myself, he had abundant cause to deplore his folly.

August 9.—Sabbath.—We resumed our journey, the most of our party being greatly elated with the prospect of good roads, fine grass, excellent water, and of having a road at least 200 miles shorter than the old one. As I journeyed along through the day I frequently heard emigrants say how much they felt themselves obliged to Colonel Ford, and Colonel Ford's brother-in-law, Major Goff, and Major Harris, and Captain Scott, and especially to Captain Applegate, the leader and master-spirit of this very formidable military phalanx. The day was one of great toil, and the heat excessive. Mrs. Thornton was so unwell and exhausted, as to be almost unable to be out of her bed.—(Mercury at sunrise, 60°; sunset, 71°.)

August 10.—We traveled rapidly all day, over very bad roads, and near night encamped. Weather clear and warm.—(Mercury, at sunrise, 61°; sunset, 73°.)

August 11.—Another weary day's journey through a barren country. Halted at an early hour.—(Mercury, at sunrise, 60°; sunset, 72°.)

August 12.—Mr. John Newton left our company in the morning, and driving forward united with one

in advance. Our company encamped in an open plain about noon. Water and grass good; dry willows sufficiently abundant for fuel.—(Mercury at sunrise, 59°; sunset, 70°.)

August 13.—Mr. Roby died on this morning, in the company led by Mr. Dickinson. He had lingered long with a consumption, that stealthily and slowly, but surely, proceeded on in its work. He was a young man from Independence, Missouri, whose parents had united with him in the opinion that a residence in Oregon or California might restore him to health. The best possible provision had been made by his friends for his comfort and convenience upon the road. His brother, Dr. Rupert, of whom mention has been made in a former part of this journal, had accompanied him some distance into the great prairie wilderness, for the purpose of observing whether he would probably endure the fatigues and hardships incident to the journey. It is well known that consumption is a most flattering and deceptive disease, and that it sometimes seems to relax its grasp on its victim, and the lamp of life flickers up with a new and brighter flame, that for a brief period covers the faces of anxious friends with the light of hope. At the time of the separation of the two brothers, the deceased seemed to be unusually well and cheerful. But this favorable change was but temporary. The emigrants with whom he traveled did all that was possible to minister to his necessities, alleviate his sufferings, and beguile the tedium of the heavily-passing hours of his illness. But death at length came, and his body was wrapped in the garments of the grave, while a fearful and solemn stillness pervaded the whole camp. The morning was beauti-

ful; strongly contrasting with the dreary and measured tread of those who bore the body to its final resting-place, and with the solemn aspect of the emigrants, who seemed not to breathe the morning freshness, and whose steps were wanting in their wonted vigor, as they followed the dead to burial.

Wm. Kirquendall and Charles Putnam left our company in the morning, to go forward with others, led by Captain Applegate, to mark and open the new road. The day was excessively hot. Mrs. Thornton was still very unwell, although not so ill as she had been. The face of the country wore a most dreary aspect; and there was little or no vegetation, other than the artemisia, and several species of cacti.—(Mercury at sunrise, 59°; sunset, 68°.)

August 13.—The morning was warm. At 2 o'clock, p.m., we encamped, at the side of a natural well of cool and clear sulphureous water, ten feet deep, and three feet in diameter. It was covered with most remarkable and beautiful moss. The ground for about eight feet around was raised in a convex form, about two feet high, and the water rose to within about three inches of the top. Near at hand was a spring of good cool water, unaffected by the sulphur. Another company, that of Mr. Campbell, in which a Mr. Hicklin traveled, was encamped near ours. Mr. Hicklin was so ill as to be wholly helpless. His wife was only able to be up, by holding on to the wagon, or by leaning upon some object. Their two children were likewise ill, but not confined. They had for a driver a worthless fellow, who, becoming angry with Mrs. Hicklin, because of her desiring him to bring a bucket of water from the spring, left them in their helpless condition, and was

employed by Mr. Crump, who traveled in our company. I have been informed that an individual in Mr. Campbell's company proposed to drive the team for \$1 per day, but that Mr. Hicklin, refusing to pay so much, was abandoned. Subsequently, the company led by Mr. Dickinson came up, and finding the family in that helpless condition, and in a country filled with treacherous savages, furnished a driver. It is likewise probable, that Mr. Hicklin contracted to pay an agreed sum for the services of the man furnished.—(Mercury at sunrise, 60°; sun-set, 69°.)

August 15.—Mrs. Thornton was still very unwell. Messrs. Nealey, Burns, Perkins, and young Kirquendall, left in the morning, and we were thus reduced to seven wagons. The face of the country was very dreary. We passed over a portion of road, so rocky and rough, that I did not believe it possible to get the wagons over without dashing them to pieces. No material injury, however, was sustained. In the afternoon the heavens were overcast with clouds, and rain fell to lay the dust, which had previously been very oppressive. The toils and difficulties of the journey appeared to increase in number and magnitude as we advanced. About 9 o'clock at night we halted near two small springs of good water, at a place where we had very little grass.—(Mercury at sunrise, 60°; sunset, 70°.)

August 16.—*Sabbath.*—A little rain fell at dawn. We set forward about 9 o'clock, and traveled over a very hilly country. Although the day was not uncomfortably warm, yet the difficult hills caused it to be one of great toil and exhaustion. We nooned at a very fine spring of cool water, and then resumed our jour-

ney, which we continued till 3 o'clock, when we encamped on Goose Creek, where we had an abundance of water and grass for the cattle, and plenty of dry willows for fuel. About 10 o'clock, A.M., the rain commenced descending, and continued to fall, accompanied with thunder and lightning, until after we encamped.—(Mercury at sunrise, 57°; sunset, 65°.)

August 17.—Traveled twelve miles; and after passing through a cañon, where the wagons were in great danger of being overturned, encamped again on Goose Creek.

August 18.—We passed through another cañon, and at 12 o'clock, we encamped at the head of Goose Creek. Rain and thunder during the day. Thermometer broke.

August 19.—We resumed our journey, and after traveling seventeen miles over a tolerably good road, encamped seven miles up a beautiful, but narrow valley, at a plain thirty miles from Ogden's River. We had good grass, and a plenty of excellent water, but no fuel, not even artemisia or grease-weed.

August 20.—Encamped in a very fertile valley.

August 21.—At noon we passed the grave of Mr. Burns, who died at 3 o'clock, A.M., and was buried at 10 o'clock, A.M. He left a wife and three children. I never look into an open grave, or stand by the side of one that has been recently filled, without the most serious and solemn reflections. Now, as I paused at this newly-made grave, covered thick with the white dust of travel, every improper passion within me grew cool, and a love for my race seemed to warm in my heart. But in addition to the circumstances which would ordinarily have surrounded me when standing

in forgetful sadness at the lonely bed of one who, wrapped in his cerements, will sleep until roused from his slumbers by the voice that shall wake the dead, this man had been my fellow-traveler upon the road; and it was with an unusual interest that I now halted my team, and pondered the question, as to whether he had safely and prosperously terminated his weary pilgrimage. He had also, on one occasion, soon after I commenced learning to drive my team, assisted me to get my wagon down a very steep mountain; or rather, he and Mr. Kirquendall had taken it down without my doing any thing in the matter; and the act had touched my heart with gratitude. This made me feel a more than ordinary interest in the question, as to whether it was well or ill with him in the world to which he had gone. David, when he exclaims, "*Surely every one walketh in a vain show; surely they are disquieted in vain,*" showed that he at least felt that men are in great danger of attaching too much value to the objects which they pursue in this life. As I gazed earnestly upon that grave, as though I would have looked through the mass of earth that lay upon the breast of the occupant, I felt in that moment of deep and solemn reflection, all the force of the sentiment thus expressed. We are apt to attach an undue importance to the objects of our wishes, and to the success of our schemes and enterprises. Events often assume an importance which, in our estimation, attach to themselves the happiness of the whole after period of our lives; but which are shown in a short time to be of infinitely less value than we had imagined. Nay, we frequently believe that our whole future well-being depends upon our executing certain favorite purposes and plans, which are

found to end, not in bitter disappointment only, but are absolutely fatal to all our warmest and brightest hopes. It is very probable that Mr. Burns had long and anxiously labored for the removal of the obstacles which opposed his entering upon this journey. Reason may, perhaps, have spoken to him in vain upon the subject. He still regarded the removal of these opposing circumstances as absolutely necessary to his health or pecuniary advancement, or to both. The great object of his anxious days and sleepless nights had at last been attained. And what was the result? The exhausting toils, and the wearing and prostrating hardships of the journey, had borne him down to the grave. The living are made to feel that most objects of human desire and pursuit, even when attained, are Dead-Sea fruits, which, outwardly beautiful, yet turn to bitter ashes upon the parched lip and the burning tongue. Religion would not have us forget the dead, but cherish for them affections that shall be immortal. This fills the heart with higher, holier, and better hopes; and takes away the bitterness of our recollections, by pointing to a glorious and sinless world of joy and peace, where we shall meet and enjoy the society of friends from whom we were separated on earth. The anguish of the mourner is at first usually such as to preclude the calmness of reflection and hope. He cherishes his own bitterness, and refuses to be comforted by aught of earth; for every thing in it is impressed with the remembrance of one upon whom he has been accustomed to repose for happiness. But the solaces of religion at length descend upon his spirit, like oil upon the turbid waters, and present to his mental vision objects of sublimity and magnificence, upon which he may

place his trust; and hallowed hopes of more enduring happiness shed their soothing influence over his sorrowing spirit.

Leaving the lone and quiet grave of our departed fellow-traveler, we resumed our journey, and traveled until 2 o'clock, when we encamped in the Hot Spring Valley, at a place where, although we had fine grass, yet the water was deficient in quality and quantity; and we had no fuel except artemisia, and a few willows, which were brought three-fourths of a mile. We passed, upon our left hand, a very large hot spring, covering near an acre of ground.

The entry of this date was the last one made in the second volume of the notes of my journal. The third commenced with August 22; and the entries in it were made daily, up to the time that Mrs. Thornton and myself left the first camp in the Umpqua Mountains, on the morning of Wednesday, November 4. This volume contained a minute and accurate account of Applegate's cut-off, and of the incidents of the journey upon that road. I can only conjecture what disposition was made of the third volume. I sent back a man into the Umpqua Mountains for these volumes, and for several other articles of property. I subsequently obtained from him the first and second volumes of my journal; and circumstances render it probable that he appropriated the third. It is known that he appropriated nearly all of the other property. The motive for keeping back the third volume was to prevent the true character of the Applegate cut-off from being made known. But the loss of it has not been so great as I at first imagined it would be; for I have since been enabled to recover the dates of the principal incidents

of the journey, commencing October 18, 1846. To these dates the general facts, as far as remembered, and regarded as being in any degree calculated to illustrate the character of the road, or the nature of the journey, are carefully referred.

We had not, when we encamped on the evening of August 21st, yet arrived at Ogden's River, but we believed that we were within a few miles of the head of that stream. This river derives its name from Peter Skene Ogden, Esq., who is the executive officer of the Hudson's Bay Company west of the Rocky mountains, and is the principal officer in charge of Fort Vancouver.

The Indians, along the whole length of this river, are very troublesome. They steal the cattle, and conceal themselves behind the rocks and bushes, from which they assail the emigrant and his stock with their poisoned arrows. One of them was shot in our camp, at one of our halts, with a rifle, by Mr. Lovelin, and with a shot-gun by Jesse Boone, a great-grandson of the celebrated Indian fighter, Daniel Boone, of Kentucky. It was always necessary to guard the cattle while feeding. One of the forward companies had rather a serious battle with these robbers of the desert. Many of the Indians were slain among the willows, where they first lay in ambush. Some were slain in a natural fortress, to which they had fled, upon being driven from the willows. Some of the whites were seriously wounded, among whom, I recollect, were Messrs. Whately and Sallee. The latter died from the effect of the wound; which, though slight in itself, yet being inflicted with a poisoned arrow, continued to inflame, and infuse the fatal virus through the system, until death ensued.

This valley varies in width from two to ten miles. The soil, in many places, is fertile; the grass generally good and abundant; but there is a great want of timber. The road, for the most part, was tolerable. Water was generally had at convenient distances; but this was not always the case. The waters of the river, like those of the Arethusa—and like Jesse Applegate's fictions respecting his cut-off—often sink in one place, and are found rising again at another. We continued our journey down the river, until we became most thoroughly satisfied that we had traveled much more than 190, or 200 miles, at which distance from our first camp west of Fort Hall, we had been induced by Applegate to believe we should arrive at the point where his cut-off leaves Ogden's River. We at first supposed that we must have passed it unobserved; and it was seriously debated, whether we should not halt the company, and send back some of our number to hunt for the point, at which it was supposed we had passed the road. We continued on, however, from day to day, until we were all of the opinion that we had passed it long before, and that we were on our way to San Francisco, in Upper California. At length we were surprised to meet Major Goff at the forks of the road. He proposed to pilot us over this cut-off of Applegate's. The distance of this point from Fort Hall, as it is directly on the traveled way, from that place to the Bay of San Francisco, is important. But in consequence of having been so dexterously relieved of the third volume of my journal notes, I am not able to fix it with absolute certainty. There are a number of facts, however, which will enable me to approximate to it. We met the "captain" at our encampment, eight miles west

of Fort Hall, August 8th. We resumed our journey next morning, and continued traveling until the evening of the 21st, when we believed we were near the head waters of Ogden's River. Allowing no more than twelve miles for each day, we must have traveled, up to that time, 156 miles. Ex-Gov. Boggs, in a letter to me, dated "*Sonoma, Upper California, April 20, 1847,*" speaking of the time when we arrived at the forks of the road, says, "I do not recollect the day of the month we separated at the forks of the road" (Applegate's cut-off), "but to the best of my recollection it was after the middle of September, or about the middle." This would be at least 25 days from our encampment on the 21st of the preceding month, when we were supposed to be near the head of the river. From this camp, then, to the place where Applegate's cut-off leaves Ogden's River is 300 miles, allowing 12 miles for each day's travel. This, added to the 156 miles of our camp of August 21st, would make the distance from our camp, at which the veracious captain met us, 456 miles. Ex-Gov. Boggs, as will be seen by another extract from his letter, believed that we had traveled 400 miles after we were on Ogden's River. This, added to the 156 miles we had traveled up to our camp of August 21st, would make the total distance from our camp of Aug. 8th, to the forks of the road, 556 miles. A journal kept by Mr. Charles James Stewart, who entered upon the Applegate cut-off September 6th, that is, about ten days before I did, makes the distance 450 miles, and yet this veracious and commissionless Captain Applegate, caused us to believe that it was no more than 190, or, at most, 200 miles. That this distance is not too great, is shown by an extract from a letter of Ex-Gov. Boggs. He says,

From the forks of the Oregon road to Johnson's House on Bear River, is about 270 or 280 miles." This would make the distance from Fort Hall to the first settlement in Upper California 728 miles. This is rather under than over the usually estimated distance. It shows, moreover, that we were, in a certain sense, in the settlements of California, when we were about to turn to Oregon City, from which we were still as far as we were when we left Fort Hall.

Ex-Governor Boggs, perceiving that we had been misinformed, as to the distance, thought it unadvisable to proceed. He says:—

"From the best of my judgment, we must have traveled 400 miles on Ogden's River. I know that I was so much disheartened with the length of the road on Ogden's River, before we reached the Forks, that I lost all confidence in Applegate's judgment of distances; and concluded, if he had made as great an error of judgment in the residue of the route, that we should not be able to reach the settlements before winter set in, and that we should in all probability perish. These considerations determined me to take the route to California."

I have no fault to find with this extract, except that its terms do not appropriately describe Applegate's conduct. It is folly—it is worse than folly—to handle such men delicately; to mince and mouth their offenses, by speaking of their actions and motives in terms which do not appropriately describe them. The proper course is to expose their conduct, that others may not become their victims. Such a course will at least deter others from attempting similar deceptions.

This Captain Applegate, it will be remembered, in-

formed Ex-Governor Boggs, that by taking his cut-off we should save at least 200 miles:—Take 200 miles from 850, and the distance from Fort Hall, according to his statement, is 650 miles. Of that 650, we had already traveled 450, which, according to this veracious captain, left but 200 miles between us and Oregon City; although the fact was, that we were really about 830 miles distant. The difference, then, between 830 and 200 will afford a very good measure of the worth of Applegate's word, respecting the road; and this, be it observed, is as near an approximation to the truth, as any thing I have ever known him to say of the road.

CHAPTER X.

JOURNEY FROM OGDEN'S RIVER TO BLACK ROCK.

AT no time, had I confided in Applegate, except through my confidence in Ex-Gov. Boggs, who, having known something of him in Missouri, expressed the opinion that he might probably be relied upon. But now, the fact of his confidence being withdrawn, taken in connection with the glaring untruths as to the distance to this point from our encampment of August 8th, perplexed and confounded me. At length, however, I determined to go forward on this cut-off, having no choice between this and a settlement in California, which country I believed at the time to be under a government that would require of me a renunciation of my citizenship, which I resolved I would not make. The veracious captain had very prudently gone forward, with I know not how many colonels, and majors, and captains. He thus kept his precious person out of the way of receiving harm from the outraged and duped emigrants, who were unfortunate, rather than weak, in their reliance upon his statements. To have shot him would certainly have been wrong. But that the injured and incensed emigrants, had he been with us, would have poured out his blood upon the sands of the desert, over which his cut-off conducted us, within the next three days, I have no doubt.

A Mr. Wm. Stokes had often expressed a wish to

me for employment as an ox-driver. I had uniformly declined ; assigning as a reason, that I had already suffered great inconvenience, and pecuniary loss, from ox-drivers, of whom, at one time, I had two ; I had learned to drive my own team ; and that, although very feeble, I had been able to get forward in peace and quietness, at least. I finally, however, at this place, consented to take him, with the understanding that he was to go entirely through with me.

Applegate had informed us, that at the place where his road left Ogden's River, we should enter upon a dry drive of thirty miles, ending at the Black Rock ; and that this was the only one we would have. It is unnecessary to state that we had now no confidence in any thing that had been affirmed by him. That we were about to enter upon a perfectly untried and unknown desert, there could be no doubt ; but, judging from the extent to which his assertions as to the previous part of the road differed from facts, we very naturally inferred, that we should find this drive to be sixty, or even eighty miles, instead of thirty. Accordingly, after filling our kegs with water, we entered this desert, with heavy and desponding hearts, having no longer any assurance as to the real character or length of the road, between one watering place and another. As we were leaving our place of encampment, we saw a dense cloud of dust rolling up in the distance behind. This we believed to be raised either by a large body of hostile Indians, or by the company of Messrs. Brown and Allen, whom we knew to be not far behind us. We continued to travel very rapidly all day over a desert that appeared to be boundless, having nothing growing upon it but a few scattered bushes of artemisia, at long

intervals. The earth appeared to be as destitute of moisture, as if a drop of rain or dew had never fallen upon it from the brazen heavens above. We encamped for the night upon the side of a mountain; and there being neither water nor grass for our poor, toil-worn cattle, they were carefully guarded through the night. I had gone forward in the morning, and found, within about three-fourths of a mile of our encampment, and far up the side of the mountain, a very small vein of water, that moistened the ground a few yards around. I removed a considerable quantity of earth with my spade, so as to make a little reservoir. Into this the water very slowly collected, and enough was obtained for tea; and from it, a few of the cattle received, perhaps, half a pint of water apiece. I divided among the poor fellows of my team a keg of water I had brought from Ogden's River. The weary emigrants at length retired to their tents for rest; but I took my now empty keg up the side of the mountain, where, by remaining until between one and two o'clock in the morning, I succeeded in obtaining enough of the precious fluid to fill my vessel.

We resumed our journey very early on the following morning, and traveled with great rapidity over a rolling, arid, and barren country, until about half an hour before sunset, when we halted to rest our cattle a little, and to take some food. The oxen looked wild and famished. We had now traveled about forty-five miles, instead of thirty, and we knew not how far it was yet to water or grass.

The country over which we had passed was dreary beyond description. There were in it no diversities of color or form, to relieve the mind by their variety.

The earth was iron, and the heavens brass. Every thing was parched and arid; and all those sources of beauty, which, from their being so generally diffused through nature, are usually regarded as things of course, were here dried up by a hot sun beaming down upon sand and rocks. Here was none of the living luster of a gay and beautiful spring, dressed in robes of the richest green, smiling upon the wooded hills and the grain-covered valleys, or laughing and dancing along the brooks and rivers. Here were none of the rich glories of autumn, laden with delicious fruits. There were neither sounds of melody to charm the ear, nor sights of beauty or grandeur to please the eye, and delight the heart.

Just as the sun was sinking, we resumed our journey, and after descending a little hill we entered a country more forbidding and repulsive than even that I have described. There we occasionally saw a stray and solitary bush of artemisia. It was a country which had nothing of a redeeming character. Nothing presented itself to the eye, but a broad expanse of a uniform dead-level plain, which conveyed to the mind the idea that it had been the muddy and sandy bottom of a former lake; and, that after the water had suddenly sunk through the fissures, leaving the bottom in a state of muddy fusion, streams of gas had broken out in ten thousand places, and had thrown up sand and mud, so as to form cones, rising from a common plane, and ranging from three to twenty feet in height. It seemed to be the River of Death dried up, and having its muddy bottom jetted into cones by the force of the fires of perdition. It was enlivened by the murmur of no streams, but was a wide waste of desolation, where

even the winds had died. It was a wearisome, dull, and melancholy scene, that had been cheered by the beauty of no verdure since the waters of the flood had subsided, and the dove left the patriarch's window to return no more.

The oxen hurried forward with a rapidity, which will be considered great, if we remember that they had now been two days and one night without either water or grass. Some cattle had already perished, and we hastened forward, anxious and distressed, amidst the silence of the night.

At length, about half an hour before daylight, in the morning, myself, and four others, arrived at the Black Rock, where we found an immense spring of scalding hot water, which cooled after flowing off to a place where it spread out upon a plain; and afforded moisture to sufficient grass for our cattle during a short stay. Other wagons continued to come up until 10 o'clock. Mr. Crump's team was so reduced that it became necessary to send back aid to him, Mr. David Butterfield brought him into camp about sunset. His team had then been without water and grass three days and two nights, during a drive the length of which was variously estimated at from sixty to seventy miles; but which a man, abhorred for the sufferings occasioned by his heartless untruths, had caused us to believe was no more than thirty miles. Some of our cattle perished in the desert, and all that survived were greatly injured. And now, that we had got to water, it was greatly impregnated with mixed alkaline salts, that made it unfit for use at the springs, even had it been cool there. But, in addition to this, it flowed off over ground filled with the carbonate and bi-carbonate of potash, which

imparted to the water a taste which caused it to be known among the emigrants as saleratus-water.

The reader will remember that when we were about to leave Ogden's River, we saw a large cloud of dust in the distance, which we believed, at the time, had been made by either a company of pursuing Indians, or by the emigrant company of Messrs. Brown and Allen. I have since been in California, where I saw Mr. Brown, who informed me that they entered upon this cut-off, and sent forward one of their company forty-five miles, on horseback, and that they were met by him after the wagons had traveled thirty miles, without finding water, as they had been told. Their messenger stated, upon meeting them, that he had been fifteen miles farther forward, without finding water. It was finally deemed hazardous to rely any longer upon the word of this untrustworthy guide. They therefore turned about, and made a hasty retreat to Ogden's River, where they remained for a brief period to recruit their cattle, after which they proceeded to California.

I believe it can be demonstrated that the wanton liar always unites the fool with the knave. Falsehood never fails to defeat its own end. For, although it may possibly succeed in a single instance, as in the present case, yet the thing will be sure to become notorious, and then, his character for veracity being gone, his power to deceive goes with it. Paley says, that much of the pleasure, and all the benefits of conversation, depend upon our opinion of the speaker's veracity. The mere man of the world can not *afford* to be a liar; the Christian is restrained by principle. I believe it is Lord Chesterfield, a mere man of the

world, who relates an anecdote in point. I relate it from memory, and may not use his precise words. I commend it to the particular attention of all commissionless, shirtless, hatless, and bootless colonels, majors, and captains ; more especially, since it is told of a "*colonei*."

It would seem, then, that a Col. Chartres, who, Lord Chesterfield says, was the greatest rascal in the world, and who had, by all sorts of crimes, amassed immense wealth, sensible of the disadvantages of a bad character, was once heard to say, that, although he would not give one farthing for virtue, he would give ten thousand pounds for a character, because he should get a hundred thousand pounds by it. Lord Chesterfield concludes by asking, whether it is possible, then, that an honest man can neglect what a wise rogue would purchase so dear.

To the reader, who shall peruse these pages to the end, a reference to this anecdote will show that it is very fruitful in suggestions. For the present, I shall only remark : First, That although Col. Chartres is affirmed to be the greatest rascal in the world, yet that refers to a past age, and does by no means include the present : Secondly, He had a commission : Thirdly, He had a shirt : Fourthly, The fact that he amassed his wealth by great crimes leaves us at liberty to infer that the colonel may have stolen the shirt from an emigrant, in some mountain ; and thus have established in that age a precedent for a similar military exploit in this. The commission, as I understand the law, after a very careful examination of all the best authorities upon the subject (see Plowder on *majors*, vol. vi. p. 1106 ; Coke on *captains*, vol. x. p. 1420 ; Kent on

colonels, vol. viii. p. 740), is very necessary to the existence of real *bona fide* live captains, colonels, and majors ; and the shirt (see Dogberry on shirts, p. 1), is equally essential to their comfort, not to say any thing of the decency of gentlemen of the military profession, especially if they are very military.

CHAPTER XI.

JOURNEY FROM BLACK ROCK TO THE WESTERN SIDE OF THE SISKIA MOUNTAINS.

WE remained at Black Rock one day and night, for the purpose of resting and recruiting our exhausted cattle; after which we resumed our journey, and traveled about eight miles, to the Great Hot Springs, in the vicinity of which we found a limited supply of grass. Our road between these two camps conducted us over a dry, grassy plain, and usually near the foot of a high and naked precipitous bluff. The tops of these high bluffs or hills appeared to be covered with volcanic scoria, or a substance resembling the slag formed in iron furnaces. Their sides presented a great variety and blending of colors, including almost all those of the rainbow. These had evidently been produced by the action of intense heat, which had left different colors in different places, according to the degree of heat applied, and the temperature of the atmosphere into which the masses had been suddenly projected while thus heated. Indeed, without attempting to account accurately for the phenomenon, the hills appeared to have been in some way scathed and blasted by subterranean fires.

At various places upon the plain, columns of steam were seen to ascend from amidst the grass and weeds. Upon approaching the place, and parting the herbage, so as fully to expose the opening, an aperture of per-

haps not more than six inches in diameter, would be seen filled with scalding hot water, but not running over. Some of these openings were a foot in diameter. None of them discharged their water, but all of them were, probably, very deep. Into one, the diameter of which was not more than ten inches, I let down a weight, with cords two hundred and four feet, without finding bottom. The temperature of these Hot Springs varied very much. The water in some was not above blood-heat; while that in others was so hot that meat would have cooked in them in a very short time. They were all remarkably transparent, and they emitted an odor like that which is observed from weak warm lye. I frequently noticed large bubbles of ascending gas. But the immediate vicinity of our encampment was the most extraordinary locality of springs I had witnessed. Within a few yards of the tents, was a sort of raised and marshy bed of flags, upon one side of which was a spring, which was cool at night and warm during the day. From this we obtained water for drinking and for culinary purposes. The females washed our garments in the water taken out of this spring, and afterward took them round and boiled them in a scalding hot spring upon the other side of the flags, not more than sixty feet from the first spring. Had it been uniformly either cold or hot, there would have been no difficulty in accounting for it. As it is, I know of no other way than to suppose that it derives its water from the hot springs, which percolates through the bed of flags, which, being cooled by the night air, cool in turn the water, which afterward makes its way into the bed of the spring.

About one hundred yards from this, the Great Boiling

Spring is situated, in a very deep basin, several hundred feet in circumference, having precipitous sides, and the spring in the center, being about thirty feet in diameter. Its waters are intensely hot, and it sends out a very rapid stream of about four feet wide, and ten inches deep. An idea of the intensity of the heat may be formed from the fact that Mrs. Lovelin, having accidentally got one of her feet in the stream, at a considerable distance below the springs, was so much scalded that the skin came away with the stocking.

I walked abroad, at the dawn on the following morning, to observe the ascending columns of the steam, which at that time rose in immense clouds, and ascended to a vast height. The day seemed to kindle from behind the giant mountains. At length, as the sun began to ascend above them, they appeared to rise from beds of flame, and to put crowns of fire upon their awful heads.

After remaining two days and nights at the Great Boiling Spring, we resumed our journey—"Hopes and fears in equal balance laid." We hoped that we should find some of Applegate's statements respecting the road to be true. We hoped that it would be seen that he had told us the truth at some time, by accident at least, if not by design. He had informed us that we would travel fifteen miles from the Great Boiling Spring, when we would come to springs, where we should obtain an abundance of excellent water. Having been previously so much deceived, it was natural for us to fear that we should find this statement also to be inconsistent with the facts. We, therefore, hurried forward, and soon entered upon as desolate and dreary a country, as the sun ever shone upon

There was no sign of vegetation but the artemisia. Universal desolation was stamped upon all around. It seemed almost that nature herself was about to expire, so fearful was the sterility and dreariness. Scarce a vestige of vegetable life appeared upon that wide and far extended sand-plain. A bird had never spread its wings over that hot and burning waste. The noise of even a cricket, broke not the silence, so profound, that a foot-fall pained the ear. A thin, hot, yellow haze hung upon distant objects, while a sort of dazzling, glistening heat seemed to surround every thing near at hand. The scene was too dismal to be described. No object presented itself to the blood-shot eyes, but hot, yellow sand, and here and there a low rock just rising above the plain, with now and then a cluster of artemisia. A strange curse seemed to brood over the whole scene.

The bitter imprecations of many a maddened and almost frenzied emigrant, were poured forth, with startling energy and emphasis, upon the treacherous guide. Goff was accused of having been a party to the misrepresentations of Applegate, both as to this drive, and that to the Black Rock. But he pretended that he had not been with him at those places; but that he and others had gone to explore some other way, and that, in their absence, these portions of the route had been examined by Applegate, upon whose word they had relied as to the character of the road.

We had toiled on amidst great suffering, but instead of finding the spring, as indicated, we found a desert as dry and blasted, as if it had just been heaved up from some infernal volcano. We pressed forward, however, although the poor famishing cattle appeared

to be almost frenzied. The sun at length set behind the mountains, with a red and angry look. But this brought with it a cool air that was a little refreshing, and the oxen hastened forward as though they were conscious that their lives depended upon the utmost expedition. At length at about 11 o'clock at night we arrived at water and grass, after having traveled a distance that was variously estimated at from twenty-five to thirty miles. I believed it to be at least thirty miles; and my opinion was based upon the time occupied in passing over the desert, as compared with the usual speed of traveling. One of the company did not get into camp until next day. The grass was deficient in quantity and quality, and the water was affected by flowing over earth impregnated with the carbonate and bi-carbonate of potash. At this place we came up with Messrs. Hall, Croizen, and Whately. Whately was suffering much from a wound received in a battle with the Indians on Ogden's River. In addition to these, our company now consisted of Messrs. Caldwell, Crump, Baker, Butterfield, Bosworth, Morin, Putnam, Newton, Lovelin, Boone, and Dodd, who was with Morin, and Stokes, and also with myself. Our cattle had suffered great injury from this drive, following almost immediately upon that of sixty miles, commencing at Ogden's River, and extending to the Black Rock.

We remained in this vicinity some two or three days, only changing camps a little to obtain better water and grass. At length we resumed our journey, and proceeded forward as fast as the enfeebled condition of the teams would permit. We traveled over a country that was generally very barren, until we ar-

rived at the Sacramento Valley, where my wagon was dashed in pieces upon an exceeding rough and dangerous road. Here I cast aside some more of my property. I succeeded in making an arrangement with Mr. David Butterfield, for the use of one of his wagons, he having one that was nearly empty. I ought, perhaps, to have remarked that, upon certainly ascertaining at Ogden's River, that we had been deceived by Applegate, Mrs. Thornton and myself took only about two-thirds the amount of food we had previously considered necessary.

We had been informed by this man at Fort Hall, August 8, that if we took his road, we would be able to arrive at the end of our journey, as early as the first of October, though we should travel no more than twelve or thirteen miles each day. This rate of traveling would have enabled us to have arrived at the end of our journey at that time, had the distance really been no more than 650 miles. It was, however, as late as the 15th or 16th of September, when we arrived at the forks of the road, where we, for the first time, fully realized that we had been duped. The deception as to the distance to this point, and the new deceptions, which almost every subsequent day revealed, made me feel a very painful uncertainty, as to the future, which, in my opinion, rendered such an allowance of food prudent, in view of the length of time, we might have to be upon the road, beyond that for which we had originally calculated. Others also became alarmed, from the same causes, and limited themselves in the amounts of their food. Many, less prudent, seemed to act upon the opinion that there was plenty of food, while there was any. We continued traveling over an

exceedingly barren and desolate country, passing over several dry beds of former lakes, until we arrived at a lake which was said to be the Tlamath, although it is certain that none of our party knew it.

A very bad Umpqua Indian having, upon a subsequent part of the road, relieved me of my third volume of journal notes of this part of the road, I write from memory only. The lake, for the most part, is an immense meadow, surrounded by mountains. During a portion of the year it is doubtless covered with water; but this, it is probable, is supplied by melting snows from the mountain, and soon runs off, leaving the shallow basin covered with grass for the remainder of the year, except in places where the Tlamath river, which flows through the midst of it, spreads out into a marsh. We approached it upon its northeastern side, and then traveled round to the south side, where we came to the foot of a tremendous mountain spur, which terminated in a precipice overhanging the lake. This made it necessary for us to cross this point, which was very high, and appeared to have an angle of near forty-five degrees. To travelers such as we were, with our teams now very much broken down by toil and continual want of water and food, the sight was truly appalling: it made the heart sick. In this matter, too, we had been shamefully deceived. Messrs. Baker, Butterfield, Putnam, and myself united our teams, and although we put from eighteen to twenty-three yoke of oxen to each wagon, it was with the utmost difficulty that we were able to take them up at all. At length we succeeded in arriving at the top of the eminence, commanding a prospect of the surrounding country.

Although our cattle were greatly distressed and ex-

hausted by the effort, I could not refrain from pausing to admire the scenery. There was nothing of the richness of the coloring, and the happy disposition of the lights and shades, of green, leafy forests. And yet as the eye swept around the neighboring mountains, and over the intervening lakes, there was a beauty and splendor, of which I then felt a strong sense, that was, without doubt, in part owing to the fact, that I had recently been passing over a country of such unsurpassed sterility. Around were many promontories and summits, of singular and varied forms, standing up against the horizon; with their bold outlines distinctly marked, and showing the dark shadows that stretched across intervening valleys, and veiling many objects in dim uncertainty; while the rays of the declining sun appeared to kindle a strong light, so as to exhibit the general outline in a sort of mellow and subdued beauty. The rays of the departing sun fell upon the lake, and appeared to impart life and motion to every object. The waters at this season of the year were only partially spread out, and they were alternately glassy or gently rippled. Far away in the distance an observing Indian paddled his frail canoe. Nearer at hand were some of the treacherous savages seeking to get, with their canoes, among the tall canes, grass, and flags, in order the more successfully to assail our cattle. Noisy water-fowl were scattered about in flocks upon the bosom of the lake, which was now gay and brilliant with the tremulous luster of the departing sunbeams. Above the mountains were piled, in fantastic and airy shapes, clouds upon clouds, of various forms, and brilliant colors. These all seemed to have been built up on a sky magnificently illuminated with a vivid

yellow luster, that deepened to a bright crimson at the upper edge. As we descended the mountain to a low piece of land, where we again came to the lake, the sun disappeared behind the mountains, the colors changed to those which were dull and hazy; and these at length wholly disappeared. We reached the plain below, where our weary cattle were unyoked, and the camp-fires kindled, as the shades of night closed the scene, and invited us to refreshment and repose.

We resumed our journey from this point, and traveled through a desert with small oases, remote from each other. We passed over the dry bed of former lakes, which are probably covered with water during the season at which the snows melt. We crossed one that was about ten miles wide, having upon its western side a cool stream of water of great beauty, that ran down the side of a wooded mountain, and spread itself out in a grassy plain below. Here we saw some pine trees of a large size. They were the first we had seen, in many a weary league, through many a weary week, that could with propriety be said to be trees. And now that we saw them, it was like meeting old and much-loved friends. The sight of these refreshed the eyes and gladdened the heart. The wind, as it passed through the suspended and waving foliage of the lofty pines, seemed to wake a low monotone, that would sometimes swell upon the ear, dirge-like yet sweet; and then gradually sink to a whispered lament. The leaves and slender branches would then, perhaps, answer in different voices from the hill side, as the breeze came sweeping over from the plain, eliciting sweet music, like that of the many-toned harp. The sounds of the noisy and babbling streams that came running

down the side of the mountain, and seemed to be hurrying to the plain, united with the whisper of the wind in the grass, and the moaning of the branches of trees, the verdure of which had been consumed by fires kindled by the savages, added their changes and harmony to the anthem of nature. Even the howl of a wolf in the grassy plain before me; the hooting of an owl in one of the trees above, and the scream of a cougar upon the mountain side, seemed to soothe and satisfy. It had been so long since I had seen a country where any thing *could* or *would* live, that almost any sound indicating life, or even the probability of it, was pleasing to my ear, and soothing to my heart. And while the breeze was sighing among the pines along the hillside, and the wild winds rushed in fitful gusts far up the mountain side, where the spirit of the tempest seemed to dwell, and to show his dark and awful form; and while in the solemn night, the twinkling stars above seemed to roll sublimely through the sky, all the monotones, though sad and wild, which the many-fingered winds awoke among the rustling leaves, seemed full of music to my care-worn and anxious heart.

On the morning following we resumed our journey and continued along around the foot of the mountain and the border of the plain, crossing several beautiful refreshing streams of water, that came down from the mountain to refresh the plain, and to clothe it in verdure. About the middle of the afternoon we entered a depression, up which we traveled two miles, when we came to a place of springs, at which we encamped. There being no grass at this place, we drove our cattle back two miles to the plain, where they were guarded from the Indians.

The next morning we resumed our journey, and after immense toil, succeeded in ascending a very high and steep mountain, to gain the top of which was itself labor almost enough to break down fresh and strong teams, much more such as ours were, worn down and exhausted, in consequence of long privation. We had been traveling during a long time over a sterile and blasted country, where no verdure relieved the eye, or redeemed the scene from utter desolation. We had not seen trees for many months, until we had made our recent encampment among the pines. But from the summit of this mountain I looked upon a most magnificent and well-watered valley in the foreground, while hills and mountains, covered with noble forests of Cone Pine rose in the distance. The mountain was a vast ridge, which rose to an immense height, and divided two valleys, which extended until they were lost in the distance. The first was that in our rear, and along which we had been traveling. Its general character has already been described as that of desolation, and extreme sterility. Upon the opposite side of this valley, and bounding it in that direction, was a lofty range of jagged and broken peaks, and enormous rough crags, that were piled upon each other in sublime and seemingly illimitable desolation. Mountain extended behind and above mountain, and crag was piled behind and above crag, until they rose to an elevation that enabled us to observe the beautiful white clouds that sometimes rested upon them, while at other times they floated before them, so as alternately to shut them in and conceal their deformity, and then to disclose them in all their sublimity. These alternations greatly added to the grandeur of the scene.

The summit of the mountain upon which I stood, enabled me to have a perfect view of the valley in front. The characteristics of this differed materially from the former. While that, as seen from this vast observatory, was gray, arid, dull, and appeared to be so barren, that the beholder could with difficulty be persuaded that any thing could exist on it, this was bordered by evergreens, which imparted to it a cheerful and pleasant aspect. The grass of the open part of the valley was, indeed, dried, and converted into a sort of hay. The green, wooded mountains rose above each other in the distance, and were so varied in their forms and elevations, as to present the most agreeable varieties of light and shade, while far away on our left, and above the mountain, masses upon masses of clouds had congregated, and were retreating before the wind; sometimes penetrated by the sunlight, and turned into shining heaps of fleecy silver. Lower down, and hanging in the clear atmosphere, were seen, more toward the west, radiant clouds, that slowly and gracefully floated across the valley. Still lower—the green mountains seen in the distance above them—were others that were white, still, and motionless, looking like aerial islands, suspended in mid-heaven, above the beautiful valley, that seemed to repose in the bosom of the hills.

The descent from the mountains was gradual and smooth, and therefore not difficult. We crossed a narrow part of the valley, and encamped upon an open grassy plain, and near a beautiful small stream of pure, cold water, in the immediate vicinity of a magnificent pine forest. I felt a hope, although a delusive one, as it subsequently proved to be, that we had, at last,

escaped from naked sand-plains, and artemisia or sand-deserts. To me this appeared to be truly a bucolic region.

The great woodlands and lofty mountains at length began to vanish away in a shadowy expanse, under the gloom of a still and quietly coming twilight, that covered distant forms with vagueness and obscurity, or exhibited them in an uncertain and fading light, which enabled the imagination to indulge in the creation of fragments, and phantasms of edifices, or to call up before the mind spectacles of beauty and sublimity.

The solemn night at length veiled all distant objects in darkness, when suddenly a signal-fire, probably kindled by some savage, who had just discovered our camp-fires, was seen to start up on the top of the mountains we had just crossed. Soon another and another answering fire blazed along the top of the mountain, and then continued to spread until the whole of the upper part of the ridge appeared to be one continued sheet of crackling flame and circling smoke. The latter rolled up in huge wreaths, that gradually grew less dense, and received and transmitted the light of the burning mountains, which gave to them a golden and crimson radiance, the splendor of which increased every moment.

We resumed our journey from this place, and in a short time entered upon a country as barren and desolate as any we had previously passed over. Having toiled on through a hilly, broken, and barren country, we at length came to a plain on Tlamath River, where we encamped. Indians appeared in considerable numbers among the trees, upon the opposite side. They were fired upon, and fled without receiving any harm.

On the following morning we commenced ascending a mountain usually known as the Siskia Mountain. I know not why it is so called. It was very high and steep, and the ascent was exceedingly difficult. After the most extraordinary labor and exhausting toil, we succeeded in arriving at the summit with our wagons, although most of the teams were well nigh broken down by it. While I waited for a time for Messrs. Baker, Butterfield, Putnam, and Crump, to come up, I stood to survey the wild mountain scenery before me. We had entered the dense forest of fir-trees and pines, which covered the mountains with their thick and dark green foliage, soon after leaving the river. In the distance we had seen, as we imagined, precipices, which in some places were perpendicular, while in others they appeared to exhibit overhanging rocks of stupendous grandeur. The road had passed at some distance below, between two immense rugged mountain spurs, that rose to a sublime height above the noisy dashing of the angry waters of the foaming Tlamath, that thundered and roared tumultuously far below, along a rocky cañon, which was so shut in by steep precipices, overhanging rocks, and the closely interwoven foliage of lofty firs and pines, that the light seemed scarcely to penetrate to where the eye with difficulty wandered toward the bottom. The forest, upon the side of this rude and rugged mountain, was very dense and lofty, and gave to it a bold, wild, solemn, and irregular appearance. In most places, the huge trees were interwoven; but in some places there seemed to be large breaks or openings. But now, although the atmosphere was clear and bright, as I stood and looked over the valley from which we

ascended, yet below the covering of the dense and closely interwoven pine tops that grew upon the side of the mountain, all seemed to be dark; and all was silent, except the loud cry of the drivers cheering the overwrought oxen to their toil.

My wagon being in the road, Mr. Newton at length insisted upon my moving forward. Mr. Townsend moved forward with us, and we soon entered a dreary forest of deep and somber shade, that covered the summit of the mountain. This stretched away we knew not whither. A dreary solitude seemed to brood over a scene which appeared to be so secluded as to be destined to be never again wandered over by the feet of man. All that we knew of the mountain, was vague and uncertain. Applegate had mentioned it by name, indeed, and had spoken of the ascent as being short and easy. But this—like almost every thing he had said of the road—we learned, by sad and painful experience, to be untrue. We only knew that many fierce savages prowled among its rugged recesses, and we only wished that they had prevented Applegate from passing through it.

Anxious to get our famishing and exhausted cattle to water and grass, we continued to press forward, until extreme darkness made it impossible to proceed without the utmost danger of dashing the wagons to pieces upon the rocks and trees. Three of my cattle also appeared to be in great danger of becoming entirely useless to me, in consequence of weakness. We chained our oxen to the wheels to prevent them from eating laurel, or being killed by Indians. We made a large fire, at which Mrs. Thornton prepared tea; we having brought a little water with us from the river.

This, and a small allowance of crackers, only equal, however, to the amount to which we had confined ourselves for several weeks, she divided with our unhappy companions in peril and travel. Mr. Townsend was without fire-arms, but I supplied him with a musket, and taking my rifle and revolver, I stationed myself as a sentinel behind a great tree, so that the shadow which the fire caused it to make, might cover me from the sight of lurking savages. The few and feeble travelers soon retired to their respective wagons for a brief repose, and in a short time they slept soundly.

At midnight I awoke Mr. Townsend to take my place as guard over the weary sleepers. In a short time I too yielded to the refreshing influence of sleep, which strengthened my weary and exhausted frame for another day of toil and travel. A merciful and gracious providence wisely concealing from me the fact that this was the last night that we would have a wagon in which to repose while upon the road.

I ought to remark in this place, that I had informed Applegate, when he met us on the 8th of August, that the amount of food in the company was not sufficient to sustain it beyond the 1st of October, even upon a very limited allowance; and that, if either the length or the character of the road was such as to detain the emigrants beyond that period, there would be great danger of many perishing with hunger. My opinion upon the subject was not the result of any accurate knowledge of facts, but I was induced to form it from general observation of what I could not well fail to observe in the camp. Accordingly on the night of our encampment in the Siskia mountains, some of the emigrants had not an ounce of bread, and only a small

quantity of very poor, unwholesome, and innutritious beef.

Early on the next morning our traveling companions, Messrs. Baker, Butterfield, Putnam, and others, whom we had left still toiling up the steep and difficult ascent of the mountain, came up to us, when we unchained our poor starving oxen, and once more resumed our painful and perilous journey. About 11 o'clock poor Tom, now faint and exhausted with want of water and grass, sank down upon the road; and the languid expression of his eyes, and the white upon the end of his nose, plainly enough told me that nature could no longer sustain the weight that oppressed it. To me it was truly a misfortune to lose the services of an ox, but aside from the regret occasioned by the pecuniary loss, Tom's long continued and faithful services through so many dangers and hardships, had excited within me a very strong attachment, and even gratitude. So great was this, that I would have been willing to pay more than five times his value to any one who would have taken him safely into the settlement, where I believe I would have pensioned him upon a clover lot during the remainder of his life. But this was impossible, and I turned away to hurry forward, in order, if possible, to save the lives of the remainder of the cattle. I left him in the wilderness to famish and die, indulging doubtless in vivid recollections of some well-known old green field in Illinois. As I turned away, I imagined that the poor fellow looked at me with a reproachful expression, which seemed to say, "Is it possible you are about to leave me here to die?"

We continued to hurry forward over this rough mountain-ridge, as though we were sensible that the

Angel of Death was close behind us. Early in the afternoon another ox, faint, and exhausted, sank down; him, too, I left to die. He had been a faithful fellow, and I felt a sincere sorrow upon parting with him. My emotions can not be comprehended by any one who has not passed over such a road, and received from day to day, from week to week, and from month to month, the efficient services of so faithful an animal. About 2 o'clock we arrived at a small valley, in which we found a little impure water, standing in pools, and also a very small quantity of dry and innutritious grass. At this little valley I came up with Josiah Morin, and others, who having succeeded in ascending the mountain before us, had gone forward, being piloted by Goff. Resting the oxen about an hour, we resumed our journey, feeling a most painful sense of the danger of all our cattle perishing for want of food.

Our veracious Captain Applegate had caused us to believe that we would have but one dry drive upon his cut-off. Previous dry drives have already been narrated; and here was another painful, and to us dangerous evidence of his misrepresentations. We had now been upon this drive one day, one night, and until 3 o'clock in the afternoon of the second day, and yet we knew not how far it was to water and grass.

We had not proceeded more than half a mile, when it was evident that the wreck of my team could no longer take forward my wagon. Mr. David Butterfield took my blankets, bison robes, rifle, shot-pouch, and a little food into his wagon, upon the condition that I would unite the remainder of my team with his, until we should arrive at water and grass. I was, under these circumstances, compelled to leave my

wagon, and its contents in the forest, with a great probability of its being robbed and burnt by the savages before morning. We had not proceeded above half a mile when Duke sank down upon the road, and with a faint and mournful low plainly said, "Well, my master, I have toiled for you a long time, but nature can endure no more, and I must now lay me down and die."

I lingered over the poor fellow for a few moments, and his fidelity, his willingness to labor, and the important services he had rendered me, passed before my mind. For the time being I ceased to remember that he had sometimes been a little testy, willful, and even presuming, as favorite servants often are. My heart smote me, too, as I recollected that I had on one occasion struck him with the ox-whip, for having made rather an improper use of his single horn, as I was about to pass him. This, indeed, he had frequently done. But I now reflected that I ought to have excused this harmless liberty, since having but one horn, it was as natural that he should desire to let people know that he had at least that one, as it is for little dogs to be snappish, or for very small men to be captious.

Turning away from my old and true friend, whom I was there compelled in my extremity of danger to leave to die in solitude by the way side, I proceeded on with Mr. Butterfield.

October 11.—About 10 o'clock at night, we arrived at a fine stream of beautiful clear water, upon the western side of the Siskia Mountains, upon which we had been two days and a night without water and grass. We found here a tolerable supply of grass. It was with a grave face, and a burthened and anxious heart, that I on that night received my little morsel of

food from the hand of my wife, who bade me be courageous, assuring me, that although we should probably suffer greatly beyond what we had supposed to be our power of endurance, we should not actually starve, or see a time when we would be *entirely* deprived of bread, so long as there was a God of Providence, upon whose faithfulness she leaned for the fulfillment of the promise, "His bread shall be given him, and his water shall be sure." I confess, however, with shame and humility, that I had my doubts and fears upon the subject. And this is a fact which I would have suppressed, and kept from appearing upon the pages of my journal, had I consulted either my head or my heart, instead of my conscience.

CHAPTER XII.

JOURNEY FROM THE SISKIA MOUNTAINS TO THE WESTERN SIDE OF THE UMPQUA MOUNTAINS.

“Wise were the kings, who never chose a friend,
Till with full cups they had unmasked the soul,
And seen the bottom of his deepest thought.”

October 12.—Sabbath.

ALTHOUGH the grass at this camp was not sufficiently abundant to make it advisable to remain at it longer than necessary, the company, in a very obliging manner, proposed to remain in camp during the day, for the purpose of enabling me to make some arrangements for having my little store of food and clothing taken forward. Mr. Hall agreed to carry my provisions for two-fifths of my bread stuff, and some articles of clothing. Josiah Morin contracted to carry the remainder of my clothing in one of his wagons, in consideration of my giving him the exclusive ownership of John and Nig, and their yoke and chain, and the use, into the settlements, of all the other oxen that still survived, and were fit for service. I gave to Major Goff, a medicine-chest, a set of cut-glass bottles filled with medicine for the journey, a cast-steel spade which I had carried up to this time, for the purpose of working the road where necessary, and a number of other articles, as a compensation for returning with me to the place where I had left the wagon. Having been one of the instru-

ments used by Applegate in misleading the emigrants, it was his duty to have rendered me assistance without compensation. But the conduct of some of these road-hunters has given them an infamous notoriety, which has its parallel in the character of a class of outlaws and banditti, who during many years infested the Florida reefs, where they often contrived so to mislead vessels, as to wreck them; when, without scruple or ceremony, they, under various pretenses, would commence their work of pillage.

Early in the morning he preceded me. I obtained from Mr. Morin a number of cattle, which, when united with the wreck of my own team, was sufficient to enable me to bring forward my wagon.

Upon ascending the mountain, I could not, although weary and greatly depressed, refrain from gazing a moment at the scene before me. The ground at its foot was dotted with white tents, from before which the curling smoke went lazily up in beautiful wreaths, into the cool air above. Many of the cattle appeared to be too tired to feed, and were lying about upon the little hill-sides, ruminating in the sun. Some of the emigrants were busied in making arrangements for diminishing in some manner the weight of the load in their wagons. Others were silent, and appeared to be stupefied with their distresses. Children were crying for bread. Over all this scene, the sun shone as bright and clear as ever. A few fleecy clouds hung in the distance, suspended in a transparent atmosphere. The valley was invested with the verdure of firs and various other evergreens, which wore the freshness and beauty of nature, washed in the showers of June, and bathing in the glittering sunlight of spring. Range after range

of mountains rose above and behind each other, clothed in rich and varied hues.

Late in the afternoon, I returned, bringing my wagon into camp. Mrs. Thornton and myself were then busied until 2 o'clock on the following morning, in selecting and repacking such articles as were not to be thrown away. We at length retired to rest upon our blankets in the open air, anxious, worn down by toil, and faint from want of food.

October 13.—The morning dawned, and with its returning light we rose to renew the toils of the day, and to encounter its unknown cares. We resumed our journey, but so rapidly did my strength forsake me during the day, that ere its close I found it would be impossible for me to drive my team, even should it not be taken from me by some new misfortune. My wagon, my large oiled tent, cooking utensils, even a small rocking chair, which I had retained up to this time, for the comfort and convenience of my wife, in addition to much else, had been left in the morning. At that time, it seemed to be an afflictive providence that compelled me to leave them. But, in the afternoon, I felt that this property had been taken from me just when I ceased to have the strength to look after it. Having, then, nothing to do but to walk along, without having to labor with the team, less strength was necessary, and I realized that my calamity compensated me in some degree by bringing with it a reduction of toil. I felt, at first, that I could not let my property go. I had, indeed, been throwing property out of my wagon, almost ever since leaving Ogden's River; but I could not consent to make so great a sacrifice at one time. In short, I did not see that my property must go, in

order that I might gain relief from toil, to which I was wholly unequal ; but now, I saw in that relief some compensation for my calamity. At first, my losses, which, although they would not have been great to one who had much, yet to me, who possessed but little, were very great, appeared to be irreparable, and attended only by evil. The day, however, revealed a remedy, which did not appear above the surface of the flood of misfortune that overwhelmed me, sweeping away in its angry waves my little property, and leaving me and my courageous and generous wife, and all our hopes, a pitied and pitiable wreck. But now, that I became sensible of my utter want of physical strength to do more than walk leisurely along the road, the loss assumed the aspect of a positive blessing. The bias of my mind with respect to the future, inclined me to hope. The language of Dugald Stewart is so expressive of my own feelings and opinions, that I adopt it as my own. He says :—

“The common bias of the mind undoubtedly is (such is the benevolent appointment of Providence), to think favorably of the future ; to overvalue the chances of possible good, and to underrate the risk of possible evil ; and in the case of some fortunate individuals, this disposition remains after a thousand disappointments. To what this bias of our nature is owing, it is not material for us to inquire ; the fact is certain, and it is an important one to our happiness. It supports us under the real distresses of life, and cheers and animates all our labors, and although it is sometimes apt to produce, in a weak and indolent mind, those deceitful suggestions of ambition and vanity, which lead us to sacrifice the duties and the comforts of the present

moment to romantic hopes and expectations, yet it must be acknowledged, when connected with habits of activity, and regulated by a solid judgment, to have a favorable effect on the character, by inspiring that ardor and enthusiasm, which both prompt to great enterprises, and are necessary to insure their success. When such a temper is united (as it commonly is) with pleasing notions concerning the order of the universe, and in particular concerning the condition and the prospects of man, it places our happiness, in a great measure, beyond the power of fortune. While it adds a double relish to every enjoyment, it blunts the edge of all our sufferings; and even when human life presents to us no object on which our hopes can rest, it invites the imagination beyond the dark and troubled horizon, which terminates all our earthly prospect, to wander unconfined in the regions of futurity. A man of benevolence, whose mind is enlarged by philosophy, will indulge the same agreeable anticipations with respect to society, will view all the different improvements in arts, in commerce, and in the sciences, as co-operating to promote the union, the happiness, and the virtue of mankind, and amidst the political disorders, resulting from the prejudices and follies of his own times, will look forward with transport to the blessings which are reserved for posterity in a more enlightened age."

We continued traveling over a generally rough, barren, and inhospitable country, having in it a great many hostile savages, until—

October 18.—Sabbath.—We met Messrs. Brown, Allen, and Jones, and some two or three other persons. The two first had come out to the wilderness for the

purpose of meeting their friends in the company of Messrs. Brown and Allen, who have already been mentioned as having retreated back, in haste, to Ogden's River, when they at length became convinced of Applegate's want of veracity respecting the road. These persons, it will be remembered, finally proceeded into California, where they arrived safely and in season. The two first named gentlemen who met us were the sons of those emigrants. The last mentioned gentleman, Mr. John Jones, brought two large fat cattle, for the relief of the almost starving emigrants. These he killed and sold to the emigrants, after driving them several hundred miles through the wilderness, at a price that did not exceed that which he had paid for them in the settlements. He had been with the company of road-hunters, led out by Applegate, and had, after arriving at Ogden's River, and thus seeing the whole of the proposed road, pronounced it to be impracticable for wagons; and he expressed the opinion that to send any one to Fort Hall to meet the emigrants, for the purpose of inducing them to take this road, would be a most inexpedient and criminal act. He said he knew the emigrants could not be induced to enter upon the road, if the truth respecting its length and character had been told them; and that a man would richly merit the severest indignation who should, by willful falsehood, induce men to peril the lives of their families, by taking them upon this road. In short, honest Jack Jones had too much integrity to seek to promote his own pecuniary interests at the sacrifice of principle.

In order, however, to prevent the consequences of these very seditious opinions, honest Jack Jones was

not permitted to proceed any farther, than to the forks of the road. Here he was detained while the veracious captain proceeded on up Ogden's River to meet us. Had Jones met us, he would have informed us of the real character and length of the road. When the emigrants finally came on down to the point, at which the Applegate cut-off leaves Ogden's River, this gentleman told them, that they had been deceived, and misled by the grossest misrepresentation, and by an unpardonable and most wicked suppression of facts. They had begun by that time to have some proof of this, in the real distance from Fort Hall to that place as compared with what they had been induced to believe it was. It was then, however, too late to retreat, upon receiving the suggestions of Mr. Jones, that the statements of Applegate were untrue; or, upon feeling their own convictions, that they were, indeed, duped, and were likely to become the victims of the most shameless betrayal.

Mr. Jones, knowing that the emigrants would be in great danger of perishing for want of food, had gone forward into the settlements for beef-cattle, with which to meet them. He had left some with the forward company, and had now brought two to us. One of the emigrants proposed to buy both beeves, and to pay a higher price than was demanded. But Mr. Jones refused to sell in this manner, alleging that he wanted no more for the cattle, than he had paid, and that he had driven them out, not for the benefit of any one or two families, but for the relief of the whole company. It was an act that showed he was humane, as well as honest and truthful.

October 19.—Messrs. Brown and Allen succeeded in

inducing some of our party to return upon our back trail for the purpose of meeting their friends and relatives. It will be remembered, that at that time, we did not know any thing certainly of them.

We resumed our journey toward the settlements, accompanied by Labin Morin, and a son of Goff's. In the forenoon, we crossed Rogue River, which we found to be a bold and clear stream, three feet deep, about five hundred feet wide, and flowing rapidly over a bottom covered with large boulders. Late in the afternoon we sent out a small party for the purpose of surprising a body of Indians, who had killed an ox of Josiah Morin's, which had been unable to go any farther, and had been left. The savages had, however, taken the precaution to station spies between the dead ox and our camp, and thus they avoided a surprise.

The two fat cattle that had been brought to us by Mr. Jones had proved to be a very seasonable supply. But the reader will at once see, that this food would very soon be consumed by such a body of half-starved emigrants.

October 20.—We remained in camp, only changing in the afternoon to a place about two hundred yards distant, for the sake of convenience. In the afternoon I saw a body of Indians, through bushes and grass, about half a mile distant, who appeared to be aiming to get at some cattle. I accompanied some three or four persons along under the foot of a hill, by getting under the cover of which we were out of view. Having arrived at the proper place, we rushed around the point, with our rifles in hand, inspired with valorous courage, when, lo! the mighty enemy we were about

to attack, with such vigor, proved to be but a company of squaws, returning from digging cammas-roots. "O, shoh!" said one, chagrined and disappointed, "I hoped that we were about to have a little chunk of fight." We returned to camp, somewhat crest-fallen.

October 21.—We resumed our journey over a wooded and broken country. The return of each day brought an increase of our cares, anxieties, and labors, and a diminution of our strength, in consequence of the scarcity of healthy food. One of the great sources of our anxiety was the expectation of the speedy commencement of the rainy season. We knew that this, causing heavy roads, and very unpleasant and difficult traveling, would also bring with it new sufferings. We most dreaded, as a consequence of these rains, the rising of the streams, and the making the mountains so slippery, as to render them impassable. For some time the clouds wore a melancholy aspect, much in harmony with our gloomy feelings. At length we heard the low moaning of the wind among the pines and firs, which was followed by some rain-drops, and soon after, the long dreaded rainy season commenced. This brought with it new, and, if possible, more bitter denunciations of Applegate. We continued our painful and exhausting journey, half starved, wet, and cold.

October 26.—This day Messrs. Brown and Allen, and party, returned to us, informing us that they had proceeded as far as the Siskia Mountains, without learning any thing of the fate of their friends. I succeeded in hiring Mr. Allen to carry into the settlements a traveling bag filled with clothing, which would probably, otherwise, have fallen into the posses-

sion of one who hung about the camp, and seemed to hold himself in readiness to appropriate any property he could lay his hands on.

October 27.—The cold rains having driven Mrs. Thornton and myself from our bed of blankets, upon the ground, under the open sky; and Messrs. Brown, Allen, and Jones being driven from theirs, which had no more pretension, except that it was made on the lee side of a log, we succeeded, with much difficulty, in making a fire. At no previous time had my heart been so much touched with the misfortunes of my wife. The ground was muddy, the air damp and cold, the rain was descending, we were without shelter, half starved, and exceedingly debilitated: added to which, we knew not where all these misfortunes would end, or what new calamities might yet be in store for us. She did not complain in words; but she looked feeble, hungry, and haggard, and appeared to be suffering severely. I could not but reproach myself for having exposed her to the dangers and sufferings incident to such a journey. Up to this time I had avoided all open expressions of displeasure concerning the cruel and heartless betrayal of Applegate, knowing that the mind should be given to the one great object—that of escaping from the perils in which we had become involved. Nor did I even allow myself to indulge feelings of intemperate anger against the author of our misery although as I looked upon my much-suffering wife, by that gloomy camp-fire, it required some fortitude to repress them.

Early in the morning we resumed our journey, and traveled through a dense forest of pines and firs, and down a hill-side, where we picked up several arrows

that were shot at us by the ambushed savages. Late in the afternoon we encamped on a little prairie, near a small stream of water.

October 28.—We resumed our journey, and after traveling all day through the rain and mud, and over a broken country, of alternate prairie and timber lands, encamped near the foot of the Umpqua Mountains.

The rocks in the vicinity of our encampment were interjected, in many places, with veins of quartz, masses of which were seen upon the surface, in various portions of the immediately surrounding country. The soil that lay upon the talcose rock was gravelly, mostly of a red color. In the afternoon, before encamping, I found a few specimens of a plant, very common in Upper California, and known there as the soap plant, from the circumstance of its adaptation to the purpose for which that article is used.

October 29.—We were now about to enter a pass in the Umpqua Mountains, which Applegate thus describes in the Oregon Spectator, Vol. ii., No. 4.—“A pool of water, about fifteen feet in diameter, occupies the dividing ground between the waters of the Rogue River and Umpqua. There is from east to west about twenty yards of land between the mountains, which rise abruptly to the height of fifteen hundred feet. *The descent each way from this point is very gentle; that to the south is about three miles, and conducts by a good way to the open country; that to the north is about twelve miles in length. For three or four miles there is sufficient space of level ground, and but little work required to make a good road; but below this the stream increasing in size by the entrance of affluents, and the mountains closing in upon it, the road must descend in*

its rocky bed, made more difficult by some large stones and short falls; or be graded along the side of the mountain, which, having loose soil or decomposed basalt, can be done with the greatest facility. These last two or three miles, when the hills recede, and leave, by frequent crossing the creek, a bottom wide enough for a road the remainder of the distance."

This description of the pass of the Umpqua Mountains was published by Applegate after we arrived in the settlements, with a view of still keeping up the delusion, and so to entrap future emigrants. But he had verbally communicated to us the same description, when he met us on the 8th of August.

We were now about to leave our encampment, and enter a pass thus described. We had long since learned by unhappy experience that this man's veracity could not be relied on. In addition to this, Messrs. Brown, and Allen, and Jones, who had passed through it, affirmed, that we would find this so far from being a truthful description of the pass, that there was too much reason to fear many cattle would perish upon this "very gentle" descent, and that most of the wagons would be lost upon this road, which "conducts by a good way to the open country." I beg the reader, when perusing these pages, to bear in mind the fact, that if I at any time err in the smallest matter, or make any mistakes (for I will not suppose myself infallible), there are many persons in every part of Oregon, who, having been in either the company in which I traveled, or in the advance companies, are prepared, from personal observation, to correct the mistake.

The information of Messrs. Brown, Allen, and Jones, filled us with new consternation, notwithstanding we

had become accustomed to each day bringing some fresh evidence of Applegate's delusions. But we entered upon the road, and, after immense toil to man and beast, encamped on the mountain at sunset, only *three miles from our last camp*. The whole company were extremely exhausted, as well as the cattle. Mr. Hall did not get his team into camp until after dark. We had traveled, therefore, but three miles, over a road which Applegate says is "a good way," and the descent of which is "very gentle!" We remained in this camp several days.

November 1.—Sabbath.—Josiah Morin, whom I had hired to carry some of my clothing, was compelled to leave all his large wagons, and go forward with a small two-horse wagon, having little else in it than the bed clothing of the family. This left Mrs. Thornton and myself in an almost helpless condition. I had, indeed, paid Mr. Morin for conveying my clothing as I have already stated; but he seemed to feel that his first duties were, nevertheless, due to his own family, and the preservation of his own property. At the time, I regarded it as extremely selfish, although I did not complain of the act. Subsequent reflection, however, under different circumstances, has caused me to regard it differently. I may here remark, that my previous and subsequent observations, during our eventful journey, induced the conviction, that suffering and peril are great promoters of selfishness. In no situation in which a man can be placed, will he so fully and so quickly exhibit his real character, as upon such a road. A sailor, named Grinnel, expressed this thought by saying, that if a man was a dog, and should enter upon this road, it would be impossible for him to conceal it, since

circumstances would be sure to occur every day that would be certain to cause him to bark. Some author, I do not remember whom, has said (I quote from memory), in the language of the motto at the head of this chapter:—

“Wise were the kings who never chose a friend,
Till with full cups they had unmasked the soul,
And seen the bottom of his deepest thought.”

I do not like the language, because it is Bacchanalian. It would have been more in accordance with my taste and experience, had it read:—

“Wise were the men who never chose a friend,
Till *cold and hunger* had unmasked the soul,
And showed the bottom of his deepest thought.”

November 4.—Having at various times upon the journey from Ogden’s River, thrown away my property, I had little remaining, save our buffalo robes, blankets, arms, ammunition, watch, and the most valuable part of our wardrobe; and fearing that we would yet lose the most of this, Mrs. Thornton selected the more expensive articles of clothing, and I packed them into two sacks. I succeeded in hiring a man to carry these upon his horse. We finally determined that, on the morning of this day, we would make an effort to pass the mountain. We were very weak, in consequence of the want of sufficient and healthful food. The road was very muddy, and the rain was descending in the gorge of the mountain, where we were, while the snow was falling far above us upon the sides. There was a close cañon, some few miles ahead of us, down which we would have to wade three miles in cold mountain snow-water, frequently above the middle. Considering Mrs. Thornton’s weak and fee

ble condition, it was extremely doubtful whether she would not perish in it. My own powers of endurance were such as the reader may easily imagine. Mrs. Thornton, myself, and Prince Darco, started early on the morning of this day, I carrying my rifle, revolver, large knife, some ammunition, and a morsel of food in my shot-pouch. We struggled forward, wading cold mountain streams, and through mud up to the knees. We passed many cattle that had perished, their bodies lying in the road. We also passed many wagons that had been abandoned, in consequence of their proprietors finding it impossible to take them over. We passed the only wagon that Josiah Morin had attempted to take through from our encampment of October 29. We found it upon a road of which Applegate says, that, "For three or four miles there is sufficient space of level ground, and but little work required to make *a good road.*" We passed household and kitchen furniture, beds and bedding, books, carpets, cooking utensils, dead cattle, broken wagons, and wagons not broken, but, nevertheless, abandoned. In short, the whole road presented the appearance of a defeated and retreating army, having passed over it, instead of one, over which had passed a body of cheerful and happy emigrants, filled with high hopes, and brilliant expectations, and about to enter a land of promise.

Upon approaching near the entrance of the close cañon, we came to where many most miserable, forlorn, haggard, and destitute-looking emigrants were encamped. Some of the men looked as angry and fierce as tigers, under the influence of their justly excited indignation and wrath against him who had thus jeopardized the lives of their families. Some of the

men appeared to be stupefied by their misfortunes. One of them, a Mr. Smith, had lost every thing, and he appeared to be overwhelmed. His wife had on a coarse and tattered calico-dress. She was thinly clad, and the covering for her head was an old sun-bonnet. Her child was not in a better condition, while that of her husband was, perhaps, even more pitiable. They had not a cent of money ; though had it been otherwise, it would not have purchased food, for there was none to be sold. In addition to this, they were so weak, in consequence of want of food, that it was believed they would scarcely live through this journey. I remonstrated with this hapless fellow traveler, persuading him that it would be better for him, and his wife, to perish in the cold snow of the cañon, than to await a more miserable death by starvation at that place. He seemed to see at once the folly of remaining there, either to brood over his calamities, or to heap harmless anathemas upon the head of his betrayer. He immediately took up his child, and about a pound of food, and desired his afflicted and almost helpless companion to follow him.

A relative of his of the same name, had been standing at that place a few days before, counseling with some of the party, as to the means of escaping their present danger. As he was thus anxiously deliberating, death summoned him away, and he fell dead in a moment, leaving a poor widow with with seven helpless and almost starving children. I was informed that they had nothing for food, but the flesh of the cattle that had just perished. How deeply must that bereaved wife and mother have felt this agonizing affliction. If she viewed her present afflictions with

any other than the eye of Christian resignation and faith, she must have experienced a double calamity, and one without compensation. Every event seemed to conspire against her; and it may be that wearied with present misfortunes, and exhausted with the almost certain prospect of more, her hold upon life, aside from a sense of duty to her children, had well nigh departed, and she was ready to go for relief and repose to the quiet grave. She may, in following the corpse of her husband to his last resting-place, have heard no voice of comfort issue from it, or have received no lesson of instruction, and learned no new fact, except that the light of his eyes was forever removed from her sight. If, however, these calamities were regarded by her with an eye of faith, she discovered gracious purposes in this combination of afflictions, having a tendency and an aim directed and controlled by a Great and Good Being.

A Mr. Brisbane had also died here, and I was informed that a child had died at this place; so that there was indeed a dark accumulation of sorrows casting its sad shade over this memorable spot.

Reluctantly leaving our unhappy fellow-travelers, we proceeded on until we came near the entrance of the cañon. I greatly feared that Mrs. Thornton would perish in it. In order that she might have as much warmth and strength as possible, I proposed, with well-affected cheerfulness, that she should take shelter under a large fir-tree that afforded a partial protection from the falling snow and rain, for the purpose of resting a little and taking some food, a small amount of which I had carried in my shot-pouch. She affected to be very cheerful and courageous, and

desired me to take out our dinner. This I did, determining to avoid eating any of it myself, in order that she might profit by my economy, and thus preserve as well as possible her remaining strength. But when the little store was taken out, she did not "want to take food,"—she did not "feel well." I knew from my own sensations, that a half-famished person would not "feel well." And I knew that she greatly needed food. I was also convinced that her real motive in declining to eat, was one of compassionate regard for my own necessities. I saw in a moment her purpose, and while my heart was touched with her generosity and unselfishness, I said, with seeming cheerfulness, "Come now, little wife, none of your tricks upon a traveler. You know that I am a man of my own head. If you do not want to eat, yet I want you to do so; and that is just about the same thing, for you and I are one, you know. Besides, when we were married you promised to obey me, and all that sort of thing. Don't you remember?" A pleasant smile covered her face, like sunshine breaking out from a cloud, and she replied that she believed she did remember having promised something very much like that. She accordingly took the food; but I observed in a short time that she had contrived to avert her face, and when I managed to get a glimpse of it, her tears were falling like great rain-drops. Upon finding that her weeping had been discovered, she laughed at the mouth and cried at the eyes, like the sun half in view and half concealed by a cloud, and said, "Well, you might take a little food, if it was ever so little; so you might, and then I would not feel so sad."

The pass in the Umpqua Mountains is a depression

which, speaking from memory, is about two miles wide at its entrance. It soon narrows to about one mile, where the mountains rise to the height of about 2000 feet on each side. Although it is a depression, there are many very steep and dangerous hills to ascend and descend. It is also seamed and cut up by drains that carry off the waters from the mountains on each side. A dense forest of immense fir-trees, oaks, arbutus, prunus, cornus, yews, dogwood, hazel, spiræa, and castanea, covers the mountain with its thick foliage and branches. We were now standing under the close boughs of a fir-tree, at a place where the sides of the defile came very near together, leaving only a very narrow gorge, called a cañon. This is a Spanish word, denoting a very narrow, rocky defile in a mountain, having sides perpendicular, or nearly so, with a stream of water running through it during the whole or a part of the year.

The cañon, which appears to have been rent asunder by some vast convulsion of nature, is about three miles long, having the whole of its width occupied by a very swift stream of cold snow-water, varying from one foot and a half to four feet in depth, and running over a bottom covered with boulders from four inches to five feet in diameter. The rocky walls on each side are in many places perpendicular; in others they recede so as to form an angle of about forty-five degrees with the plane of the horizon. Every object in view seems to be formed on a grand scale. The rocks, when not perpendicular, are rude and rugged, and seem to have been piled up in a most irregular manner. Huge masses, abrupt in form, and hoary with the mosses which ages have collected, tower up into

mountains, the sublime height of which constitutes an impassable barrier. Through this narrow passage the cold mountain torrent dashes along, three or perhaps four miles, when a little valley, at first only a few yards wide, begins to open out, and at length expands to about half a mile. Through this valley the stream flows in a serpentine course, so that the traveler is obliged to ford it forty-eight times in the distance of about three miles, when he finds himself upon the open plain, on the north side of the mountain, and distant about twenty miles from where he first entered the pass.

Mrs. Thornton and myself at length left the partial shelter of the fir-tree, and entered this stream with a "rocky bed, made more difficult by some large stones and short falls." We each had a long stick in our hands to support ourselves, and to prevent the water from sweeping us into deep holes. Prince Darco swam down the stream, contriving frequently to rest himself by holding by his fore feet to the side of some rock. Mrs. Thornton, upon suddenly descending into the cold snow-water, above the waist, was much chilled, and I thought at first that she would perish. I chafed her temples, face, and wrists, and she revived. In the first moment of consciousness, she bade me not be alarmed, saying that she was yet worth two dead women. After proceeding down about three-fourths of a mile, we halted to rest a little upon some rocks, where the water was not more than eighteen inches deep. Even this was a relief, in fact, a positive refreshment, compared with our condition in the water up to the waist. We resumed our journey, and at length Mrs. Thornton began to lose all sensibility upon

one side. I supported her as well as I could, but at length she complained of indistinctness of vision, and soon became totally blind. I need not say what were my feelings in that moment of the heart's bitterest anguish. I could not, for all the world, have carried her dead body out of that cañon. The thought, therefore, of her dying in that place, and under the circumstances which then surrounded us, had in it something peculiarly horrible. Her lips were thin and compressed, and as white and bloodless as paper; her eyes were turned up in their sockets; her head fell back upon my arm, and every feature wore the aspect and fixedness of death. I rubbed her wrists violently, chafed her temples, shook her, and called aloud to her. At length she revived, and with returning life sight was restored. She still complained, however, of partial insensibility on one side. But we hurried forward as well as we could; and at length, in great exhaustion, and almost chilled to death, we emerged from that cold mountain stream.

As we passed through this disastrous cañon, we saw a great many cattle that had perished, and were lodged against and among the rocks. A short distance from the place where we left the narrow gorge, we came to the tent of the Rev. Mr. Cornwall. He had already passed the cañon, but such was the toil endured by the oxen upon Jesse Applegate's "level land," "good way," and "gentle descent;" and such was the chilling effect of the water, that the oxen nearly all died the following night. He was, therefore, now in a totally helpless condition.

Mr. Cornwall was in no condition to afford us any shelter under his tent. It was literally filled with

others as helpless and distressed as ourselves. But the privilege of standing at his fire, was, in itself, a favor that made us feel grateful; and its warmth, when contrasted with the cold and suffering occasioned by the waters of the disastrous cañon, made us, for the time, comparatively happy.

There were several men about the fire. Among them was the Mr. Smith, whom I had persuaded to attempt the passage. He got through, with his wife and child, and although almost exhausted, still he was now far more happy than persons generally are under circumstances much more favorable to happiness and comfort. We made a large fire, and dried our garments as well as we could, by standing about in the open air, and under clouds, that frequently reminded us that they had not yet parted with all their contents.

I still had a morsel of food in my shot-pouch, and also a very small quantity of the very best tea. Mrs. Thornton prepared our little supper, and although it was neither so good as it might have been, nor yet quite so abundant as was particularly desirable just about this time, still it was something, and we were certainly very grateful for it. After all the occupants of the tent had lain down to sleep, I obtained the use of a chair, and a little bench about four feet long, having a back to it. This seemed like a very rapid multiplication of comforts. I placed them before the fire, and sitting down upon the chair, I had Mrs. Thornton recline upon the bench, with her head and shoulders upon my arm, where we slept until morning, when she declared she had never enjoyed a better rest.

November 5.—We resumed our journey, and after wading Cañon Creek thirty-nine times, we were ena

bled to avoid it by clambering along the side of the mountain. We at length emerged fully into the open plain, and about noon arrived at the place of general encampment, on the left bank of the Umpqua River. Here I found the wrecks of all the companies who had been induced to enter upon a road along which our wagons were lying in scattered fragments, upon the side of the hills, upon the tops of the mountains, and along the rocky glens, and the almost impassable cañons, which marked this disastrous cut-off. Some of the emigrants had lost their wagons; some their teams; some half they possessed; and some every thing. Here were men who had a wagon, but wanted a team; there, others who had a team, but no wagon. Mr. Humphrey was the only man who, so far as I have since been able to learn, got to this point with a whole wagon and a complete team. All looked lean, thin, pale, and hungry as wolves. The children were crying for food; and all appeared distressed and dejected.

I desire again to call the attention of the reader to the following extract from the article written by this man Applegate, and published by him in the Oregon Spectator, Vol. ii., No. 4. Pretending to describe the pass in the Umpqua Mountains, he says:—

“A pool of water about fifteen feet in diameter occupies the dividing ground between the waters of the Rogue River and Umpqua. There is from east to west, about thirty yards of level land, between the mountains which rise abruptly to the height of fifteen hundred feet. *The descent each way from this point is very gentle.* That to the south is about three miles, and conducts by a *good way* to the open country.”

A comment upon this paragraph is found in the con-

dition of the emigrants after passing through the cañon. Several of them had labored the whole day in arriving at "this point," around which the unscrupulous Jesse makes so many gross errors revolve. To "this point," we are told that the way is "*a good one*;" and yet, upon arriving at the camp made after passing through the cañon, I found Josiah Morin, who had left two wagons at "this point;" Mr. Hall, two; Mr. Lovelin, one; Mr. Boone, one or two. There may have been others. What can be thought of this man's statements respecting the "good way" to "this point?"

I had sent on to this encampment two packs of clothing, in one of which was concealed a little food. I had also sent forward a buffalo robe, and two blankets. I immediately kindled a large fire at the side of a fir log containing a great deal of gum. With poles, I made a frame, upon which to stretch one of the blankets, to shelter us a little from the snow and rain. The buffalo robe served for a bed, and the remaining blanket for a covering; and the soft side of a long oak stick of timber made a very passable pillow. We had become too weak, in consequence of want of food, to travel further. But there was a hope indulged, that food would be sent us from some of the settlements. Applegate had long before escaped into the settlements, and we had already learned too much of the character of that very veracious personage to expect relief in any way from that quarter, unless he sent out food on speculation. But single men, who knew of the condition of the companies, had gone forward on mules, and we hoped these would in some way be instrumental in sending to us the necessary supplies. In this state of uncertainty and anxious suspense, it became necessary, as a measure of prudence,

to examine into the exact state of our little store of provisions, and to make a further diminution in the daily quantity to be consumed. We had two pounds of good tea, as many of loaf sugar, one pint of rice, one pint of beans, about half a pint of dried peaches, sixty table-spoonfuls of the dust or flour of crackers, about one pint of flour, and a half a pound of dried beef. This we determined so to apportion, as to furnish us each with three meals per day, for ten days. I do not remember our allowance of any of the articles except the crackers, which was one spoonful to each, in the bottom of the tea-cup.

Upon this meager diet we had already become so much reduced in strength, that we often staggered as we walked. Our knees were often seized with such a weariness and weakness, upon our attempting to walk, as to make it impossible for us to proceed more than one or two hundred yards without resting. Some of the emigrants in the camp are said to have commenced eating the cattle that had died in the cañon. This loathsome food had some time before been used, as was reported, by emigrants, at both ends of the cañon. Among them, as I have been informed, was a worthy man, whose name is Townsend. This is the same gentleman who spent the night with me in the Siskia Mountains.

Having arrived at the place where the emigrants were encamped, and having escaped the immediate peril of life, I began to collect my scattered thoughts, and to reflect upon the utter pecuniary ruin and desolation that had swept over me. I had saved but little from the wreck. There yet remained a long road over which I had to pass before I could arrive at the

inhabited part of Oregon, between which and us there were two rivers, many large creeks, and one mountain, which was twelve miles across it. The road was exceedingly heavy with mud. Mrs. Thornton, whose energy, courage, and constancy, had hitherto risen with the occasions which rendered the exercise of these virtues peculiarly necessary, had by this time become so weak, in consequence of the want of sufficient food, as to be unable to walk far. I was in a condition in no respect better, and we had no means of conveyance.

While in this condition, I became greatly discouraged and depressed in mind, as well as reduced in my physical energies. I seemed to be approaching the eve of the breaking up of both. On one occasion, I had retired from our camp-fire, where obligations to my wife made it my duty to stay, for the purpose of comforting and cheering her. I sat down, sullen and despondent, upon the trunk of a huge pine, which many storms had at length broken and prostrated. In moody silence, I bowed my head upon the palms of my hands. A dark cloud rested upon the future, and intercepting every ray of hope, shut me up in the dark forebodings of a fearful issue.

I am ashamed to confess, that life amidst so many misfortunes was felt, at the moment, to be a burthen. I was ready to adopt the language of a better and far more patient man, and say, "What is my strength that I should hope, and what is mine end, that I should prolong my life. My brethren have dealt deceitfully as a brook, and as the streams of a brook they pass away." With Jacob, too, I exclaimed, "All these things are against me." I did not, at the moment, realize that the patriarch had spoken in ignorance; and that the very

things which he deplored as being so much against him, were designed by a merciful Providence, as the means by which himself and family were to be saved from famine, and as the instruments to be employed for working out untold blessings for all posterity.

In this state of mind, I suddenly remembered that far back upon the road, I had seen a very large eagle flying backward and forward, in a half circle, far up in front of an immense precipice. I did not at first discover the object. She had built her nest upon a narrow projection of an immense rock of great height, and had so situated it that an observer would not fail to remember the passage, "Doth the eagle mount up at thy command, and make her nest on high? She dwelleth and abideth on the rock, upon the crag of the rock, and the strong place. From thence she seeketh the prey, and her eyes behold afar off." At length, however, I saw that she was endeavoring to induce her newly-fledged eaglets to leave their lofty rock-built nest, and take to the wing. She frequently fluttered over the nest, upon the edges of which the eaglets were sitting, after which she gracefully and majestically circled upward, evidently endeavoring to induce them to follow her in her aerial flight. This she did frequently; and the full-feathered eaglets often extended their necks to look after her; but in consequence of timidity, or a reluctance to leave their nest, they declined following. At length, after various unsuccessful attempts to induce them to come abroad, she appeared to be very angry with them for clinging to their nest, as though that was the only place in the world, or even the best one. She then darted at it, and threw it and her eaglets down the face of the

rock. In a moment, she was below them with outspread wings, as though she intended to break their fall. Very soon, however, the young birds, who had manifested such an inordinate attachment for the little pile of brush, from which they first saw the sun, learned both the fact of their having wings and the manner of using them. They began to rise, at first, slowly and rather heavily. Soon the parent bird led the way, describing gradually enlarging circles as she ascended, while her young ones followed, and appeared every moment to rise with more ease and grace. Upward they continued to ascend into the vast expanse above; and upward still the noble birds arose, until the eaglets became mere specks upon the sky, and then disappeared, and soon the parent bird herself was lost in heaven's pure depth of blue.

With the recollection of this event were associated many texts of Scripture, familiar indeed, but never before making such an impression on my mind, because never before connected with such circumstances. Among these, I will refer to the following only: "He found him in a desert land, and in the waste, howling wilderness; he led him about, he instructed him, he kept him as the apple of his eye. As an eagle stirreth up her nest, fluttereth over her young, spreadeth abroad her wings, taketh them, beareth them on her wings; so the Lord did lead him. He made him ride on the high places of the earth, that he might eat the increase of the fields; and he made him to suck honey out of the rock, and oil out of the flinty rock."—"He shall mount up with wings as eagles, he shall run and not be weary, he shall walk and not faint."

I was immediately enabled to exercise a strong trust

in God's providence, and I returned to our camp-fire with a mind at rest. As I came up, I heard Mrs. Thornton repeating a hymn, only one verse of which I remember.

“A stranger lonely here I roam,
From place to place am driven.
My friends are gone, and I'm in gloom,
I have no home but heaven.”

The language indicates the state of feeling into which, for a brief period, she was plunged. I say *brief*, because she was usually remarkable for her cheerfulness; and because, moreover, upon my making her acquainted with the feelings of my own mind, she caught the hue of my own emotions. In a short time she was as cheerful as a lark, and we sat down to our simple and scanty meal, as happy as if it had been far better, and much more abundant.

That evening the clouds passed away, and I amused myself, during many sleepless hours of the night, while lying upon my back, by looking, from the side of our temporary shelter, at the heavenly bodies, and canvassing the reasons, *pro* and *con*, upon the curious and interesting question, as to whether the planets are inhabited. The reader will, without doubt, be ready to say that the question is one of idle and useless speculation. It was serviceable to me, at least, in enabling me to while away the heavy hours of a long and chilly night. And besides, I think the affirmative is supported by many interesting considerations and analogies. It has been held by many who have turned their attention to the phenomena of the heavens. The Chaldeans and Egyptians are examples. *Anaximander*, the successor of Thales, who died 547, B.C.,

taught that the planets were peopled with living beings. *Anaxagoras* taught, 450, B.C., that the moon was inhabited. And *Pythagoras* proceeded so far as to calculate the size of the animals on the moon. I believe that some French philosopher has expressed an opinion, based upon what data I know not, that the inhabitants of Saturn have seventy-two senses, while those of Sirius have nearly a thousand. I believe, then, that I have made sufficient apology for the manner in which I spent the wakeful and heavily-passing hours of that night. Let me see. *Chaldeans, Egyptians, Anaximander, Thales, Anaxagoras, and Pythagoras.* Yes, that will do.

The reader can, with difficulty, perhaps, realize how brief with me were those feelings with which I returned from the fallen pine to our camp-fire. We had often cheered each other with the assurance that we should never be without water, and a little bread, at least. As to the former, we had a river full of it immediately before us; and, as to the latter, we still had on hand several spoonfuls. At length my wife informed me, Wednesday, November 12, as she came toward me with a few spoonfuls of the dust of crackers in one corner of a little bag, that on the following Friday we would have an abundant supply of food. With a manner having little of cheerfulness about it, I desired to know when the mantle of a prophetess had fallen upon her. She said that our food, at even our short rate of allowance, would not hold out longer than to that time, which would, of course, bring us to our last extremity, when relief would be sent by a God who had promised that "His bread shall be given him, and his water shall be sure."

On the following morning, both being very weak and hungry, Mrs. Thornton and myself strolled along down the river bank, with the hope of seeing something that I might shoot for food. Wearied and exhausted, I was at length resting myself against a tree, when I suddenly saw persons approaching from the direction of the settlements. Upon their nearing the stream I went down to the bank, where I recognized Mr. Kirquendall, who, together with some others, had come with flour and fat beeves. They came to camp, where the animals were slaughtered, on Friday, November 14, when I obtained eighteen pounds of flour, twenty pounds of beef, and one pound of tallow, at a price which, although very high, would not cause a starving man to pause. In a short time Mrs. Thornton had prepared our supper, consisting of warm bread, beef-steak, and tea. The havoc which I committed upon these good things of Providence was tremendous, in fact astonishing, to all except very hungry people.

This supply of food was brought at a time when there was great suffering in the camp. It was sold to the heads of families in amounts having reference to the size of the families, and although the quantity thus distributed was so small that it was soon consumed, it was, nevertheless, of vital importance to the famishing emigrants. For this timely supply I was informed, we were indebted to the "captain," whose humanity or cupidity was evinced by his first placing us in the condition in which we then were, in order that he might afterward make a very profitable market for his surplus produce. He first reduced us to the verge of starvation, that he might thus be enabled to gather up the last dollar that remained to us.

On the afternoon of Friday, Nov. 14, I hired of Wm. Kirquendall a horse for Mrs. Thornton and myself to ride alternately, on our way into the settlements. It would have been impossible for either of us to walk all the way, so I applied to one Asa Williams, whom Applegate had sent out, for the use of one of his horses for the purpose of carrying two packets of clothing. This clothing was all that I had been able to preserve during our passage through the cañon, and I need not say that I was anxious to preserve it. Williams demanded to see the clothing. Having selected a very fine suit of blue broad-cloth clothes, worth, in Oregon, about eighty dollars, he then informed me that he required that as a compensation. I did not hesitate. Had he demanded half of the whole stock, it would have been given. In truth, I would not, after hiring a horse of Mr. Kirquendall for the purpose of enabling Mrs. Thornton and myself to escape from that place of famine, have thought for a single moment of permitting the clothing to detain us at the place. I would, indeed, have piled the whole of it upon the fire, rather than have encountered any further risk of life.

I have spoken in this and preceding chapters, of matters upon which I would have been wholly silent, had I not deemed it necessary for the protection of future emigrants. In doing so I act upon the principle, "*Exempta jurat pinis e pluribus una.*" "Better one thorn plucked out than all remain."

I omit to mention the particular circumstances attending the appropriation of nearly all of the little property that misfortunes had left me, by a white savage, who prowled about the camp, because it is not

absolutely necessary to guard future emigrants against the enterprises of needy and reckless adventurers.

Before closing this chapter I will also remark, that I believe the climate, soil, grass, and timber would sustain a flourishing settlement in the vicinity of the camp, upon the north side of the Umpqua Mountains.

CHAPTER XIII.

JOURNEY FROM THE NORTHERN SIDE OF THE UMPQUA MOUNTAINS.—ARRIVAL IN THE SETTLEMENTS, AND RESIDENCE THERE.

“.... These by promise he received
Gift to his progeny of all that land,
From Hamoth northward to the desert south.”

November 15.

AT the time we were about to resume our journey once more, many of the emigrants (and among others the Rev. Mr. Cornwall), who could not travel, expressed an earnest desire that I would, upon arriving in the settlements, do all in my power to make their condition known to the people of the Wilhamette Valley.

With prospects ahead far different from those which so recently shut out the light of hope, we set out for the settlement, with a party led by Wm. Kirquendall. While we were upon the top of a mountain, which commanded a view of a large extent of country, distant about four miles from our late encampment, I saw persons upon the plain below, approaching from the direction of the camp. Upon inquiring of Mr. Kirquendall who they were, he informed me that they were Mr. and Mrs. Newton, and Sutton Burns, who

were probably endeavoring to come up with us, in order that they might accompany us into the settlement. We continued traveling until about sunset, when we encamped. Mr. Newton, I have been informed, continued traveling until after dark, for the purpose of overtaking us.

We resumed our journey on the following morning; and Mr. Newton resumed his. It was upon this day, I believe, he was met late in the afternoon by three Umpqua Indians, one of whom spoke English, and informed him that he would do well to encamp at the place at which he then was, there not being water and grass as they affirmed at a convenient distance ahead. They asked for food, and it was given to them. After which they asked for three loads of powder and ball, and stated that they would bring in a deer. It was given to them, and all by them put into one gun as one load. Mr. Newton finally suspecting that harm was designed, desired them to go away; but this they refused to do. He sat near the door of the tent to watch them, but being at length overcome with sleep, he was shot. He immediately rose, and sprang into his tent for his gun, when one of the savages, seizing an ax, inflicted a blow which nearly severed one of his legs. The tent was then robbed, and the articles placed upon an American mare, owned by Mr. Newton, after which they fled.

Between the south and north forks of the Umpqua a new species of geranium was found; and also a tobacco plant (*Nicotiana*); a *Ceanothus*; and *Laurus ptolemii*. The bed of the north fork of the Umpqua, at one place where it was examined, was found to be composed of sandstone and clay-slate. About half a mile distant

from this point, the slate gave place to basalt, not more than a mile distant from a sandstone range.

November 18.—On this day, just seven months from the time of entering upon our journey, we entered the head of the Wilhamette Valley. This was an important point in our journey, and I seemed to have thrown off from my shoulder, at the foot of the mountain, when I first entered the valley, a load of care that had long oppressed me. On Tuesday, the 25th of the same month, we arrived at the house of Mr. Lewis, where a little milk and butter having been added to our now rapidly increasing luxuries, we regarded ourselves as having renewed cause to be grateful.

November 29.—Sabbath.—We arrived at Forest Grove, which is the name bestowed by me upon a “claim” in Polk county, then possessed by Mr. William Allen, but which was subsequently, under the laws of the Provisional Government of Oregon, attached to my very extensive and productive estates.* To this gentleman I paid a sum for boarding with him during two weeks. We greatly needed rest, and regular and healthy food. And at this place we very much improved in health and strength. We were comparatively cheerful and happy also, for although we had lost upon our journey nearly every thing that we had owned, yet we did not permit the recollection of these losses to unfit us for the discharge of new duties, or the enjoyment of comforts that were now at

* Congress has since refused to recognize the validity of the law of the Provisional Government of Oregon, under which I made this “claim.” It does not, however, materially diminish the amount of my wealth.—AUTHOR.

hand. We could with great practical truth say with
CREECH:—

“ Believe not those who lands possess,
And shining heaps of useless ore,
The only lords of happiness ;
But rather those who know
For what kind fates bestow,
And have the art to use the store ;
That have the generous skill to bear
The hated weight of poverty.”

And although a portion of our losses had been occasioned by the most wicked untruths, and a much smaller portion by a violation of that clause of the decalogue which says, “Thou shalt not steal,” yet we deemed them wrongs and losses which should not be permitted to cast a gloom upon the prospect before us.

We enjoyed a happy experience in realizing that this was, notwithstanding all our toil and suffering, not our permanent abiding place. We knew that “there remaineth therefore a rest for the people of God.” Property and business might fail, but still the eye of hope could fix itself on other objects. The whole land also was before us, where to choose some pleasant, shaded, and well-watered spot, upon which to build a cabin and make a little farm. And there could be no doubt that the General Government of the United States would make to each emigrant a grant of a reasonable number of acres of land. Many acts of the Government had raised such an implied promise, and had induced emigrants to fill up the country.

Upon the whole, however, we were poor indeed, so far as poverty is measured by dollars and cents. But

we did not realize the picture of poverty sketched by THEODORE A. FAY:—

“Perhaps,” he says, “of all the evils which can befall a man, if not the very worst, poverty is, as society is constituted, the most difficult to endure with cheerfulness, and the most full of bitter humiliations and pains. Sickness has its periods of convalescence, and even guilt of repentance and reformation. For the loss of friends time affords relief, and religion and philosophy open consolation. But poverty is unremitting misery, perplexity, and restlessness, and shame. It is the vulture of Prometheus. It is the rock of Sisyphus. It throws over the universal world an aspect which only the poor can see and know. The woes of life become more terrible, because they fall unalleviated upon the heart; and its pleasures sicken even more than its woes, as they are beheld by those who can not enjoy them. The poor man in society is almost a felon. The cold openly sneer, and the arrogant insult with impunity. The very earth joins his enemies, and spreads verdant glades and tempting woods where his feet may never tread. The very sky, with a human malice, when his fellow-beings have turned him beneath its dome, bites him with bitter winds and drenches him with pitiless tempests. He almost ceases to be a man, and yet he is lower than the brutes; for they are clothed and fed, and have their dens; but the penniless wanderer, turned with suspicion from the gate of the noble or the thatched roof of the poor, is helplessly adrift amid more dangers and pains than befall any other creature.”

I had indeed fallen into the hands of men who evidently regarded the emigrants as a sort of fair game,

and who did not think it either criminal or dishonorable to rob them and to appropriate their goods. Needy adventurers and arrant scribblers of all work, without either character or principle, had made flying visits to the country, and by means of a book of untruths, such as Lansford W. Hastings' "Guide to Oregon and California," had *sheared* me. The seller of these books had *shaved* me, by taking my money for that which, had it been relied upon, would have led me astray. Jesse Applegate had *polled* me, by causing me to lose nearly all my property. Asa Williams, the young man whom he had sent out with his produce to sell to the emigrants, *scraped* me, by charging me ten prices for that assistance which was necessary to my being extricated from the dangers into which I had been plunged by means of the deceptions practiced upon me. Another individual, who prowled about the camp like a starved wolf, waiting to crack the bones that might be left around the fires, *pared* me, by appropriating my property. So that, finally—to extend a thought not my own—before I arrived in the settlement, I was *sheared, shaven, polled, scraped, and pared*, and I only lacked a butcher to take off my skin.

The kindness and good-will of the people of Oregon, however, with the above-named exceptions, were well calculated to alleviate a sense of my recent misfortunes and sufferings. His Excellency, GEORGE ABERNETHY, the Governor under the Provisional Government, and the Rev. GEORGE CARY, the superintendent of the Methodist missions in Oregon, and also the wives of both these gentlemen, were especially prompt in supplying our first and most pressing necessities. Nor were these the only individuals whose ready and deli-

cate attentions won our esteem and excited our gratitude. In short—

“Benevolence, and peace, and mutual aid,”

soon caused us to feel comparatively at ease; and whenever I found myself disposed to murmur and repine, the feeling was promptly checked by recurring to the hardships and perils of our recent journey.

On the 9th of February, I was appointed Judge of the Supreme Court of Oregon. In this situation, I was enabled to be useful, as I believe, to this young and interesting colony, by authoritatively establishing principles in the decisions of causes brought before me as a court of final adjudication, which rendered abortive many efforts at wrong doing; and one of which effectually checked a system, that had been adopted for the purpose of creating litigation. This is often done by small-rate lawyers, who dishonor the profession, and are always the curse of a new country.

Being without talent, learning, or merit of any sort, yet having sought, in an honorable profession, the means of escape from honest manual labor, they are compelled to resort to chicanery, cunning, and falsehood, and the basest means for the encouragement of litigation, and stirring up strife. They lend themselves, for some contemptible pittance, to any person as ignorant and as viciously disposed as themselves, seeking to harass a neighbor with a lawsuit, having its origin in some unimportant trifle, of no consequence, whether considered with reference to the principle involved, or to the pecuniary amount in controversy. Without being learned, they know just enough of the forms and processes of the law, to enable them to entangle in its meshes the simple and confiding, upon whose substance

they then prey, and thereby contrive to eke out, from one term to another, a miserable and odious existence. In short they are a species of vermin, with which courts in new countries are often infested. They are usually without briefs, and always without character; and they continue to be the curse of their village and neighborhood, until the penitentiary reclaims its fugitives, and the gallows its victims; or until an enlightened and virtuous public sentiment drives them, with hisses and a whip of scorpions, back into their dens.

A man may have been a drunken enlisted soldier, who attached himself to the ranks of the army, in time of peace, to avoid the sewer or gutter on the one hand, and the alms-house on the other, and he may yet go into a new country with the greasy and tattered uniform of the rank and file hanging about him; and if he can by any means procure an odd volume of Blackstone, in six months he may write himself "Attorney and Counselor at Law." He may be an illiterate fellow, who never dreamed of rising to a higher or more useful station, than that to which his want of education, intellect and principle would naturally fix him; and although little if any above twenty-one years of age, yet with the occasional use of the other odd volume, he, too, writes himself, "Attorney and Counselor at Law."

A late number of the British Quarterly Review, referring to the history of the French Directory, in 1804, comments upon a state of things then existing in France, such as prevails in many villages of the recently populated portions of the United States, about which congregate mendacious and illiterate pettifoggers, whose disreputable practices, and want of education,

principle, and character, often have the effect of bringing into disrepute one of the most useful and honorable professions.

“While the Directory,” says the Review, “still flourished in 1804, young Guizot proceeded to Paris to study law. But the law was then at a very low ebb—the professions not having recovered the harsh regulations of the revolution, which admitted ex-butchers, ex-bakers, ex-nightmen, to assume the profession of barristers, under the name of *defenseurs officieux*. The individuals who performed the functions of counsel were called *hommes de loi*; but M. Berryer, the elder, tells us in his Memoirs, that, happily for the clients, they had no right to demand a fee. Guizot, after having attended the lectures for some time, and probably not liking the profession, as then constituted, appears to have abandoned the calling as a means of livelihood.”

John P. Kennedy, Esq., describes with a masterly hand, and in a fine style, the “OLD LAWYERS.” He says:—

“I have a great reverence for the profession of the law and its votaries; but especially for that part of the tribe which comprehends your thorough-paced staggers of the bar. The feelings, habits, and associations of the bar in general, have a very happy influence upon the character. It abounds with good fellows: and, take it altogether, there may be collected from it a greater mass of shrewd, observant, droll, playful, and generous spirits, than from any other equal numbers of society. They live in each other’s presence like a set of players; congregate in the courts like the former in the green-room; and break their unpremeditated jests, in the

intervals of business, with that sort of undress freedom that contrasts amusingly with the solemn and even tragic seriousness with which they appear, in term, upon the boards. They have one face for the public, rife with the saws and learned gravity of the profession, and another for themselves, replete with broad mirth, sprightly wit, and gay thoughtlessness. The intense mental toil and fatigue of business give them a peculiar relish for the enjoyment of their hours of relaxation, and, in the same degree, incapacitate them for that frugal attention to their private concerns, which their limited means usually require. They have, in consequence, a prevailing air of unthriftiness in personal matters, which, however, it may operate to the prejudice of the pocket of the individual, has a mellow and kindly effect upon his disposition.

“In an old member of the profession—one who has grown gray in the service, there is a rich unction of originality, that brings him out from the ranks of his fellow men in strong relief. His habitual conversancy with the world, in its strangest varieties, and with the secret history of character, gives him a shrewd estimate of the human heart. He is quiet, and unapt to be struck with wonder at any of the actions of men. There is a deep current of observation running calmly through his thoughts, and seldom gushing out in words; the confidence which has been placed in him in the thousand relations of his profession, renders him constitutionally cautious. His acquaintance with the vicissitudes of fortune, as they had been exemplified in the lives of individuals, and with the severe afflictions that have ‘tried the reins’ of many, known only to himself, makes him an indulgent and charitable apologist of the

aberrations of others. He has an impregnable good humor, that never falls below the level of thoughtfulness into melancholy. He is a creature of habits: rising early for exercise; temperate from necessity, and studious against his will. His face is accustomed to take the ply of his pursuits with great facility, grave and even severe in business, and readily rising into smiles at a pleasant conceit. He works hard when at his task; and goes at it with the reluctance of an old horse in a bark-mill. His common-places are quaint and professional: they are made up of law-maxims, and first occur to him in Latin. He measures all the sciences out of his proper line of study (and with these he is but scantily acquainted), by the rules of law. He thinks a steam-engine should work with *due diligence*, and without *laches*; a thing little likely to happen, he considers as *potentia remotissima*; and what is not yet in existence, or *in esse*, as he would say, is *in nubibus*. He apprehends that wit best that is connected with the affairs of the term; is particularly curious in his anecdotes of old lawyers, and inclined to be talkative, concerning the amusing passages of his own professional life. He is sometimes, not altogether free of outward foppery; is apt to be an especial good-liver, and he keeps the best company. His literature is not much diversified; and he prefers books that are bound in plain calf, to those that are much lettered and gilded. He garners up his papers with a wonderful appearance of care; ties them in bundles with red tape; and usually has great difficulty to find them when he wants them. Too much particularity has perplexed him; and just so it is with his cases; they are well assorted, packed, and laid away in his mind, but are not easily to be

brought forth again without labor. This makes him something of a procrastinator, and rather to delight in new business than finish his old. He is, however, much beloved, and affectionately considered by the people."

The above is a faithful sketch of the picture of an old and professionally-educated lawyer, and especially of one who has been several years engaged in the honorable practice of a profession which has been adorned by such men as Coke, Hale, Hardwick, Marshall, Story, Benton, Webster, and Douglass, and was an honorable one, until men were admitted to it who, besides being too illiterate to become acquainted with even its mere mechanical processes, are the refuse of the barracks, the loungers and drunken brawlers about dram-shops. While, in the language of Mr. Kennedy, "I have a great reverence for the profession of the law and its votaries, but especially for that part of the tribe which comprehends the old and thorough-paced stagers of the bar," yet I love to cherish a supreme contempt for that whole class of driveling pettifoggers who emerge from barracks, escape from dungeons, or seek to avoid the condition to which their vices, or their want of education, should confine them; and who contrive to obtain admittance to a profession in which they must necessarily steal, starve, or eke out a miserable and loathsome existence in the most dishonorable shifts to stir up strife between neighbors, who, but for them, would amicably adjust their differences.

A few months sufficed to enable me to build a cabin, and to obtain a very few articles absolutely necessary to housekeeping. The journey had taught us that many things which education and habit had caused us.

to feel to be absolutely necessary, were not so in fact, but only convenient and useful. I believe that we were not proprietors of more than one whole chair. Indeed I need not say *we*, for it was a rocking-chair belonging to Mrs. Thornton. Indeed, we were "well to do," for, in addition to this, we had one broken chair and two benches. In the commencement of our housekeeping in Oregon, all our former opinions as to what are indispensable were dissipated into thin air. I believe I never enjoyed more unalloyed happiness than I did in our Oregon cabin, wherein we were permitted to repose after so much toil and suffering. Although we had but little of this world's goods, yet we both enjoyed fine health, which was a blessing to which we had been strangers for fifteen years. The fine, healthful climate of Oregon had operated like a charm. When reviewing the past scenes and incidents of our journey, we could, in the fullest sense, adopt the language and spirit of the poet:—

“Blest he, though undistinguished from the crowd,
 By wealth or dignity, who dwells secure,
 Where man, by nature fierce, has laid aside
 His fierceness, having learnt, though slow to learn
 The manners and the arts of civil life.
 His wants, indeed, are many, but supply
 Is obvious, placed within the easy reach
 Of temperate wishes and industrious hands.”

CHAPTER XIV.

BOUNDARIES AND MOUNTAINS OF OREGON.

BY the Florida treaty of 1819 between the United States and Spain, it was agreed that the forty-second parallel of north latitude, from the Rocky Mountains to the Pacific Ocean, should constitute the southern limit of the United States west of those mountains. After Mexico had thrown off the authority of the parent country, by a treaty entered into between the United States and that republic, the same line of separation was established.

By the convention of 1824, between the United States and Russia, it was agreed that the Russians should make no settlement on the west coast of North America, or the islands, south of the latitude of $54^{\circ}, 40'$, and the United States should establish none north of that line.

By the convention of 1825, between Russia and Great Britain, it was in like manner stipulated that the British should occupy no place on the coasts or islands north of $54^{\circ}, 40'$, and that the Russians should make no settlements south of the same latitude; and it was, moreover, agreed that a line drawn from that parallel northward, along the summits of the mountains, within twenty miles of the sea, to its intersection with the 141st meridian of longitude west from Greenwich

(passing through Mount St. Elias), and thence along the meridian to the Arctic sea, should be the limit between the Russian and British possessions on the continent of America to the northwest.

The country thus lying north of the forty-second parallel of latitude, and south of the parallel of $54^{\circ}, 40'$, was claimed respectively by the United States and Great Britain. These nations provisionally compromised their pretensions by an arrangement, made in 1818, and continued in 1827 for an unlimited period, to the effect that any territory in that section of America, claimed by either, should be equally free and open for navigation, trade, and settlement, to the citizens or subjects of both; the government of each being at liberty to abrogate the arrangement, after giving due notice of twelve months to that effect to the other.

Negotiations upon the subject of the conflicting claims were finally resumed, and at length resulted in the settlement of the Oregon Treaty, signed at Washington, June 15, 1846, and ratified at London, July 17 of the same year. By this treaty the forty-ninth parallel of latitude, to the Gulf of Georgia, was established as the dividing line between the British and American possessions on the Pacific.

The political boundaries, therefore, of Oregon are the Rocky Mountains on the east, the Pacific Ocean on the west, the forty-ninth parallel of north latitude on the north, and the forty-second parallel on the south.

Having thus shown the political boundaries of Oregon, it will now be proper to show what are the natural boundaries of that territory.

Oregon, considered as comprehending the territory drained by the Columbia river, together with the sea-

coasts of that territory, lies within the following natural boundaries: On the east, the Rocky Mountains, extending from about the forty-first parallel to the fifty-third or fifty-fourth; on the south from the South Pass, in latitude $42^{\circ}, 24'$, westward to the dividing ridge between the waters of Lewis river and those of the Salt Lake, and thence to the Pacific Ocean near Cape Mendocino, along the highlands which separate the waters of the Tlamath from those of the Sacramento; on the west, the Pacific Ocean, from Cape Mendocino or its vicinity, north to Cape Flattery, at the entrance of the Straits of Fuca, near the forty-ninth degree of north latitude; and on the north, the Straits of Fuca from Cape Flattery, about 120 miles eastward, and thence by a line running northeast along the summit of the highlands separating the waters of the Columbia from those of Fraser's river, to the Rocky Mountains, at about the fifty-fourth degree of north latitude.

As nature has given external boundaries to that portion of Oregon which is drained by the Columbia, so she has marked it by a constant succession of mountain ridges and valleys, or plains of a small extent, which divide the country into three sections. The principal ridges are three, all of which run for the most part of their length parallel with the Pacific coast. That ridge which forms the eastern boundary of Oregon, and which separates the waters of the Atlantic from those of the Pacific, is known as the Rocky Mountains. It is the same chain which in South America is known as the Andes; in Mexico, up to the fortieth parallel, sometimes as the Mexican Cordilleras, but more frequently as the Anahuac Mountains. From

the fortieth parallel northward to the Arctic sea, it is known as the Rocky Mountains.

Nearly all the great rivers of North America have their sources in these mountains, around a sort of circle of which the South Pass is the centre. The Missouri, the Yellowstone, the Nebraska, the Arkansas, and the Rio Grande, all take their rise here, and flow into the Atlantic. Here also the Colorado and the Columbia rise, flowing into the Pacific.

Many of the elevations in the Rocky Mountain chain reach the height of about 17,000 feet. A hopeless sterility characterizes nearly the whole chain, and for the most part renders it unfavorable to both animal and vegetable life. In the more elevated regions, eternal winter, clad in robes of snow, covers the rugged form of nature, and dark clouds veil its face. The great altitude and barrenness of this range would render it impassable but for certain gaps. Of these there are five that are known, and through which traders, trappers, and Indians annually pass. The principal of these are the following:—the South Pass, in latitude 42° north, through which the emigrants and others annually pass, from the United States to Oregon and California. That through which the fur-traders of the Hudson Bay Company annually pass, is situated between Brown's and Hooker's peaks. A third is situated between the sources of Maria's and Clarke's rivers. A fourth is situated between Henry's fork of Lewis river and Bighorn, which is a branch of the Yellowstone. I am not acquainted with the location of the fifth.

This range, like all the ranges in this country, has numerous spurs, many of which are also of great eleva-

tion. The first is that lying north of Fraser's river, and in which that river takes its rise. It has many high peaks, several of which are covered with snow the greater part of the year. It is a vast assemblage of peaks and heights, which are covered here and there with a small growth of firs and pine. From this spur, another puts out for a considerable extent down the northern or main branch of the Columbia; and another branch of the same spur extends down Fraser's river about the same distance. The altitude of both branches of this spur is less than that of the source of Fraser's river, yet it has several high peaks. Generally, it has but little timber upon it. In some places, however, it is covered with dense forests of pines. A spur of lofty elevation lies in the great bend of the Columbia. This is only partially covered with vegetation. Between the Flathead and Flatbow rivers there is another spur, which is even more sterile than the one just mentioned. Between the Flatbow and the Spokane, there is also another spur, which has several very considerable elevations. The greater part of this spur is thickly covered with trees, shrubs, and grass. The only remaining spur worthy of notice, in connection with this range, is one running near and along the Kooskooskee river. It consists of rugged cliffs and peaks, many of which are entirely destitute of timber, or vegetation, yet the less elevated portions of them are thickly covered with firs, pines, and a thick undergrowth of shrubs and bushes. This spur appears to be connected with the Blue Mountains, and to form a portion of that range.

The Blue Mountains are an irregular and broken chain of mountains, commencing about the forty-sixth

degree of latitude, and running south to the southern boundary of Oregon, where they intersect the Tlamath range. These mountains are thought by many not to constitute a distinct range, but to consist entirely of spurs from the Rocky Mountains. But the better opinion is that they are distinct. Their general direction is parallel with the coast, from which they are distant from three to five hundred miles, and they bound the valley of Lewis river on the west. Its altitude is much less than that of the Rocky Mountains, yet it has several peaks which are near ten or eleven thousand feet high, and covered with perpetual snow. The range is in many places, and more especially in the little valleys, very fertile. It has numerous depressions, elevated plains, and valleys of limited extent, which produce an abundance of grass, and in some places most excellent timber, consisting principally of fir, pine, and cedar.

The *Presidents' Range* of mountains may be said to have its commencement with Mount St. Elias, which is about one hundred miles east of Prince William's Sound, in Russian America, and under the parallel of 61°, north latitude. Mount St. Elias is 18,000 feet high, and is believed by many to be one of the highest peaks in North America. This chain of mountains, from that point south to Fraser's river, is known as the Cascade Range. From the latter point, extending south, it is known among the patriotic American citizens of Oregon, as *The Presidents' Range*. Its general direction is from north to south, and nearly parallel with the coast. It has numerous lofty peaks, which, like most of the mountains in Oregon, exhibit evidences of volcanic origin and rise to the region of perpetual snow.

To several of these elevations, the names of American Presidents have been given. I regard it as being peculiarly proper, to identify the name of the chief magistrate, during whose administration the dispute respecting the title to the country in which they are situated was settled, with the snowy peaks of this chain of mountains. I have, therefore, designated as *Mount Polk*, that peak heretofore known as Mount Baker. It is near the forty-ninth parallel, and a little east of the Straits of Juan de Fuca. I know not its elevation, and if I have ever seen a statement of it, I have ceased to remember it.

Mount Washington is that known among the British as Mount Hood. It lies a little south of the Columbia river, and in about latitude $45^{\circ}, 20'$. It is estimated to be from twelve to sixteen thousand feet high. The Indians affirm that they have frequently seen fires in the chasms of this mountain. Independent of this, there are many facts, which leave no doubt that this is a volcano.

Mount John Adams is the Mount St. Helens of the British. It is an active volcano, near $46^{\circ}, 29'$. It is 9550 feet high. This mountain was in a state of eruption in the year 1831. The fact is affirmed by Dr. Gassner, a distinguished naturalist of England, who was in Oregon at the time, as also by gentlemen connected with the Hudson Bay Company. With the exception of a slight red, lurid appearance, the day was dark, and so completely was the light of the sun shut out by the smoke and falling ashes, that candles were necessary. The weather was perfectly calm, and without wind; and during several days after the eruption, the fires, out of doors, burned with a bluish flame, as though the atmosphere was filled with sulphur

Credible persons in Oregon have informed me, that they have, on several occasions since, seen the fire and smoke of this volcano. The Rev. Josiah L. Parish, who is connected with the Methodist Mission in Oregon, informed me, that on one occasion he witnessed one of the most remarkable eruptions of this mountain. I regret, however, that not having noted his relation in my journal, the date of the eruption and the principal facts connected with it, have been obliterated from my memory, by events to which my attention has since been called. I only remember, that no earthquake was felt, no noise was heard, and that he saw vast columns of lurid smoke and fire shoot up; which after attaining to a certain elevation, spread out in a line parallel to the plane of the horizon, and presented the appearance of a vast table, supported by immense pillars of convolving flame and smoke.

Mount Jefferson is the Mount Vancouver of the British. This name of Jefferson was bestowed upon it by Lewis and Clarke, in 1804. It is situated in about latitude $44^{\circ}, 40'$.

Mount Madison is the Mount McLaughlin of the British. It is in about $43^{\circ}, 30'$.

Mount Monroe is near $43^{\circ}, 20'$, and is the Mount Shaste of the British.

Mount John Quincy Adams is near latitude $42^{\circ}, 10'$.

Mount Jackson is situated in about latitude $41^{\circ}, 40'$, and is the Mount Pitt of the British.

Mount Van Buren is the Mount Olympus of the maps, and is situated on the peninsula between Hood's canal and the ocean.

Mount Harrison is the Mount Rainer of the maps,

and is situated near the 47th parallel of latitude. It is 12,330 feet high.

Mount Tyler is a name bestowed upon an elevation on the peninsula, between Hood's canal and the ocean, and is inferior in elevation to Mount Van Buren, or Mount Olympus of the British.

These mountains are all snow-peaks. They present a general sameness in their appearance and characteristics. Their sides are usually naked, rocky, and precipitous. The chain of mountains which connects all these snow-peaks, except Mounts Van Buren and Tyler, runs parallel with the coast, and with the Rocky Mountains. The distance from the former is from one hundred miles to one hundred and fifty. From the latter from four hundred miles to six hundred. The mountains which connect the snow-peaks of the Presidents' Range are covered with the most grand and noble forests of pine, fir, cedar, spruce, hemlock, etc. Many of them are from six to eight fathoms in circumference, and present a remarkably straight and beautiful shaft of two hundred feet, without a single limb.

I think I have never felt that indefinable process of sensation, which has commonly been denominated the emotion of sublimity, as strongly as when I have stood at some point in the Wilhamette Valley, and looked, in midsummer, upon the cold, pure, white, and massive snow-covered peaks of the Presidents' Range of mountains. No man who has a soul can contemplate these vast natural objects, so splendid in their beauty, and so lofty in their elevation, without their producing in his heart irresistible emotions of sublimity, the remembrance of which will only cease with his being; and he will exult in the view of nature, while his inmost soul

trembles at the magnitude of the conceptions inspired by this survey of a portion of the material world, terrible in its beauty and vastness. "All men," says Ralph Waldo Emerson, "are poets at heart. They serve nature for bread, but her loveliness overcomes them sometimes. What mean these journeys to Niagara; these pilgrims to the White Hills? In the mountains, they may believe in the adaptation of the eye. Undoubtedly, the changes of geology have a relation to the prosperous sprouting of the corn and peas in my kitchen-garden; but not less is there a relation of beauty between my soul and the dim crags of Agioçochook, up there in the clouds. Every man, when this is told, hearkens with joy, and yet his own conversation with nature is still unsung."

At a point on the north side of the Columbia, near the Cascades, a spur of the Presidents' Range commences, and runs westward to Cape Disappointment. It is from one thousand to fifteen hundred feet high, and is covered with a heavy forest of firs, pines, and other trees indigenous to the country. Another spur commences at the Cascades, on the south side of the river, and runs westward as far as Cockscomb Hill, near Astoria. Both of these parallel spurs diminish in altitude as they run westward. The intervening valley through which the Columbia flows is of unequal width. It has a rich soil, and generally a heavy growth of the very best timber.

There is another low range of mountains, commencing at Cape Flattery, and running along the coast until it terminates at Cape Mendocino, broken, however, by the Columbia and several small rivers in their passage to the sea. To this I have given the name of the *Coast*

Range. It has a rich soil from its summit to its base, on its eastern side. The western side is but little known. A heavy growth of forest trees, unsurpassed for their beauty, circumference, and height, consisting principally of fir, pine, spruce, cedar, and hemlock, adorn and cover its sides.

This range descends gradually from the coast to the east, and terminates in extensive undulating plains of great beauty and richness.

There is also another spur of the Presidents' Range, running westward, and constituting the dividing ridge between the waters of the Wilhamette and the Umpqua rivers. This also is covered by forests of great beauty. I certainly have never seen any thing to equal them. While standing among the trees, that looked as though they were not less than three hundred feet high, and as though they had grown there, deeply rooted in the soil, ever since God said, "Let the earth bring forth grass, the herb yielding seed, and the fruit-tree yielding fruit after its kind, whose seed is in itself, upon the earth," I exclaimed, Surely God made these mountains, and these sublime forests to cover them!

Another spur of the Presidents' Range terminates at the Pacific Ocean, and separates the waters of the Tlamath river from those of the Umpqua. I have had no opportunity to examine for myself the whole of this spur. The trees upon the portion which I saw, were generally small. I passed, however, through some two or three fine forests of large timber.

A little attention to this description of the system of mountains, in Oregon, will show that, as nature has given the country external boundaries, so it has divided it internally into three natural sections, limited as

follows: Eastern Oregon is bounded on the east by the Rocky Mountains, and on the west by the irregular line of the Blue Mountains. Middle Oregon is bounded on the east by the Blue Mountains, and on the west by the Presidents' Range. Western Oregon is bounded on the east by the Presidents' Range, and on the west by the Pacific Ocean. The natural boundary to all those sections on the north, is the ridge which separates the waters which flow into the Columbia, believed to commence near the forty-eighth parallel of latitude, near Admiralty Inlet, and to extend to the fifty-fourth, near the northern source of the Columbia. The political boundary on the north is the forty-ninth parallel. The natural boundary of these sections on the south, from the Rocky Mountains, is about latitude $42^{\circ}, 24'$, north, westward to the dividing ridge between the waters of Lewis' River and those of the Salt Lake, and thence to the Pacific Ocean, near Cape Mendocino, along the highlands which separate the waters of the Tlamath from those of the Sacramento. The political boundary on the south is the forty-second parallel of north latitude.

CHAPTER XV.

RIVERS OF OREGON.

THE Columbia is the principal river of Oregon, and the only one of the whole Pacific coast, south of the parallel of 49° north latitude, which extends far into the interior, or which drains any thing like an extensive country.

Next to the snow-peaks of Oregon, this is the most remarkable geographical feature of the country. It enters the Pacific Ocean in latitude $46^{\circ}, 18'$, north, between Cape Disappointment and Point Adams. It is formed at the distance of more than three hundred miles from the ocean, by the union of two rivers, one from the southeast, called Lewis river, in honor of Captain Lewis, one of the very first explorers of this interior country; and the other, usually considered as the main river, from the northeast, and sometimes called the Columbia, one of the principal branches of which is Clarke's river, so named in honor of the late General Clarke, the friend and coadjutor of the late Captain Lewis. Clarke's river is also known among the Hudson Bay Company's trappers and traders, as Flathead river. The Columbia, together with its main branch, collects together all the waters flowing from the western side of the Rocky Mountains, between the forty-second and the fifty-fourth parallels of north

latitude, and between the 112th and the 124th degrees of west longitude.

The northernmost source of the stream known as the Columbia, is in two lakes, which interlock with the sources of the Kootanie, or Flatbow River, in about latitude 50° north, and about longitude 116° west from Greenwich. From these two small lakes it flows northwest through a rough, broken, and inhospitable country, to a place called the Boat Encampment, where it unites with a stream, which has its source in a small lake in a cleft in the Rocky Mountains, called the Punchbowl, and within a few feet of the extreme western source of the Athabasca, one of the head-waters of Mackenzie's river, which discharges itself into the Great Arctic Sea. The scenery in the vicinity of the Punchbowl is unsurpassed in terrible sublimity and grandeur. Here Mount Hooker lifts its awful head 15,700 feet on the south of this small lake, while Mount Brown on the north rises to an elevation of 16,000 feet. While the tremendous rocks are piled up in craggy grandeur at the base of both these mountains, their summits are covered with eternal snows, and there perpetual winter reigns. One of the sources of Fraser's river is in a small lake also in this vicinity. It flows into the Gulf of Georgia, east of Vancouver's Island, a little north, of latitude 49° north, and in longitude 121° west.

A short distance below the junction of the stream from the Punchbowl with the Columbia, another called *Canoe River* flows in from the north. This stream has its source in a small lake near latitude 53° north, and in longitude 120° , 18', west.

The river thus formed by the union of these three, is

regarded as the main Columbia. This point is three thousand feet above the level of the sea. It thence flows nearly south, through defiles between lofty mountains, being generally a third of a mile wide. One of these channels is but a few miles below the junction of the three above named streams, and it is called the Upper Dalles. Through this passage the waters are thrown with great rapidity, and they whirl and dash with tremendous violence. About thirty miles below the Upper Dalles, are the Lower Dalles, similar in all respects to those above mentioned. They seriously interrupt the navigation of the river, and greatly diminish the value of the surrounding country. Flowing thence it expands into a line of lakes, two of which especially may be noticed; the first, known as the Upper Lake, is about twenty miles in length, and about five in width. It is situated in an exceedingly rough and mountainous country, surrounded by high towering cliffs, and dense forests of pines. Between this and the Lower Lake there is a place known as the Straits, in which for an extent of five miles, the waters are compressed into a very narrow channel, through which they flow with great rapidity. The Lower Lake is about twenty-five miles in length, and six in width. It has in its vicinity, forests of fine timber, and a few prairies of limited extent, having a fertile soil. Thence the Columbia continues to flow south, until it receives Kootanie river, from the east, in latitude, $49^{\circ}, 30'$, north, longitude $117^{\circ}, 40'$, west from Greenwich. The Kootanie is a large stream, rising in the dividing range between that and the two lakes which constitute the source of the Columbia. This stream is also known on some maps as Flatbow

river, and on some as McGillivray's. It flows southeast, until it approaches Fort Kootanie, when it turns northwest, until it expands into Flatbow lake, after which it flows southwest to its junction with the Columbia.

From the junction of Kootanie river, in about latitude $49^{\circ}, 30'$, the Columbia river flows south to about latitude $48^{\circ}, 50'$, when it receives Clarke's river from the southeast. This is probably not inferior to any of the other branches of the Columbia, in the quantity of water, which it supplies. The point of junction is 2500 feet above the level of the sea. The source of this river, is in the Rocky Mountains, near the forty-fourth degree of latitude, not far from the extreme headwaters of the Missouri, on the eastern side of that chain, and of Lewis river on its western side. The banks of the river between Kullespelm lake, and the junction of Clarke's river with the Columbia, are well covered with excellent timber, while behind on either side there rises a line of lofty hills. The soil is rich; and the stream is deep and navigable, excepting at one cascade, where a portage is necessary. It flows in a northwestern direction, until it expands into Lake Kullespelm, receiving in its course the waters of Arrowstone and Blackfoot rivers, and also these of Flathead lake from the east. From Lake Kullespelm, Clarke's river flows northwest, until it forms a junction with the Columbia. The Columbia then turns to the west, and passing a ridge of mountains, precipitates itself over what are called the Kettle Falls. They are thus described by Com. Wilkes:—

“The Kettle Falls are one of the great curiosities in this part of the country. They are formed by a tabu-

lar bed of quartz, that crosses the river, and which being harder than the rocks, either above or below, has, of course, suffered less by abrasion, and thus formed a basin that renders the name appropriate. The total descent of the water is fifty feet, though the perpendicular fall in no place exceeds fifteen feet, which is, however, more than sufficient to prevent the passage of boats. At the foot of the falls, the breadth of the river is 2330 feet, and the rate of the current is four miles an hour. The breadth is somewhat narrowed by an island, about midway of which is the first fall, which is almost entirely unbroken. Thence the river forces its way over a rocky bed, until it reaches the main fall, where the water is thrown into every variety of shape and form, resembling the boiling of a kettle, from which the falls derive their name."

A short distance below the Kettle Falls, are the Thompson Rapids, which begin at the mouth of a small stream, known as Mill river, and extend some distance below that point. Flowing thence in the same direction between the forty-eighth and forty-ninth parallels, it receives the Spokane from the south. This is three hundred feet broad at its mouth, opposite its junction with the Columbia; there are rocks beneath the surface of the water, which cause rapids; but there is no perceptible fall, and the barges shoot them without difficulty. This river has its source in Lake Coeur d' Alene, known on some of the maps as Pointed Heart. This lake is two miles wide, and five miles long, in an east-southeast, and west-northwest direction. The mountains in the vicinity are of granite. The general direction of the stream is northwest, until it

forms a junction with the Columbia, in about latitude 48° north, longitude $118^{\circ}, 20'$, west. This stream has four falls, three of ten feet, and one of forty, besides which there are rapids; and the whole fall of the river, within a distance of one thousand feet, is about one hundred feet. The Little Falls is higher up, and only six miles below Lake Coeur d'Alene. Proceeding up the Spokane (pronounced with the accent on the last syllable), its course for the first ten miles, is east-southeast. It flows through fine scenery, and on the southern side its banks offer numerous fine sites for dwellings; while the hills present the appearance of beautiful terraces, clothed with green grass, and having a few pines growing upon them. The fact that the whole of the country, south of the Spokane, is of igneous formation, will afford some idea of its soil. In the surrounding country are found some limited valleys and plains, which produce an abundance of vegetation, and are surrounded by forests of good timber. It is not navigable for any kind of vessels, unless, perhaps, for barges and canoes between the falls and rapids.

From the junction of the Spokane river, the Columbia flows in an irregular course; generally, however, westward, until it meets the Okonagan from the western side, in about latitude 48° north, longitude $119^{\circ}, 40'$, west. This stream has its source in a long line of lakes, having their commencement in latitude $50^{\circ}, 20'$, north, longitude 119° west. Its general direction is thence west, receiving in its course several small rivers and creeks, from both its eastern and western sides. This river is navigable for boats, a considerable distance north. The country through which it flows is sterile, except a few plains of very limited extent, which are

covered with vegetation, and a few hills, which are thinly timbered. The Okonagan is a dull and turbid stream, three hundred feet wide, half a mile above its mouth. The Columbia is sixteen hundred feet wide, where it receives the Okanagan.

From the junction of the Okonagan, the Columbia resumes its general southern course, and thus continues, until it receives, from the west, the Entyatecoom, in about latitude $47^{\circ}, 45'$, north, longitude $120^{\circ}, 10'$, west; the Piscoas river, from the same side, in about latitude $47^{\circ}, 30'$, north, longitude $120^{\circ}, 18'$, west; and the Akama, also from the west, in about latitude $46^{\circ}, 30'$, north, longitude 119° west. The three last mentioned rivers all have their sources in the Presidents' Range of mountains, north of Mount Harrison, and south of Mount Polk. Much of the country through which they flow is broken, and considerable portions of it barren.

Finally, the Columbia unites with Lewis river, its great southeastern branch, in about latitude $46^{\circ}, 18'$, north, longitude 119° west. Lewis river has its sources in the valleys, or holes, as they are called, of the Rocky mountains, near latitude 42° , in the immediate vicinity of the sources of the Yellowstone, the Nebraska, and the Colorado of the Gulf of California. One of the sources of this stream is a small lake, known as Jackson's Lake. It is in about latitude 44° north, longitude 33° west from Washington. The other principal source is a small lake without a name, so far as I know. It is situated a little east of "The Three Tetons," and north of the South Pass, in about latitude $43^{\circ}, 10'$, north, longitude $33^{\circ}, 10'$, west from Washington. The two principal streams near its sources are Hen-

ry's river, the most eastern, and the Portneuf, which flows from a highly volcanic region, not far from the Great Salt Lake, and in about latitude 42° , $38'$, north, longitude 35° , $40'$, west from Washington. Below the junction of these two streams, the Lewis river flows west, and then northwest, receiving on its way, and from the eastern side, the Malade (or Sickly) river, in about latitude 43° , $20'$, north, longitude 37° , $50'$, west from Washington; Boisé (or Wooded) river, in latitude 44° , $30'$, north, longitude 39° west from Washington: Salmon river, in about latitude 46° north, longitude 39° , $20'$, west from Washington; and the Kooskooskee, in latitude, 46° , $30'$, north, longitude 42° west. This is 750 feet wide, one mile above its mouth, and its banks are destitute of trees. While Lewis river abounds in salmon, this does not, because, as the Indians affirm, its waters are too clear. A fine specimen of the basaltic structure is found a few miles below the junction of the Kooskooskee, in a high range of basaltic columns, which there bounds the river. Notwithstanding the length of Lewis river, it is much inferior to the north branch of the Columbia, but after it is joined by the Kooskooskee, it is much enlarged.

Lewis river receives from the south, Raft river, in latitude 42° , $30'$, north, longitude 38° west from Washington; from the west, Owyhee, in latitude 44° , $20'$, north, longitude 39° west; the Malheur (the Unfortunate or Unlucky) river, in latitude 44° , $30'$, north, longitude 39° west; Powder river, in latitude 45° , $40'$, north, longitude 39° west; and Grand Round river, in latitude 45° , $50'$ north, longitude 40° west.

The Grand Round river is important, not for the purposes of navigation, but because it waters the valley,

from which it derives its name. The Grand Round is a most beautiful and fertile plain, or mountain prairie, southeast from Fort Wallawalla. It is surrounded by basaltic mountains, covered with a heavy growth of timber. It is about twenty miles long, and near fifteen wide. If great beauty and sublimity of scenery, salubrity of climate, an abundance of good grass, a rich soil, and fine water and timber, are desirable, a farmer might delight to establish himself in this mountain valley. The emigrant road passes through it. Here, also, the Cayuse, Nez Perces, and Wallawalla Indians, meet to trade with the Snakes, or Shoshones, for roots, skin lodges, elk and buffalo meat, in exchange for salmon and horses.

Formerly the Cayuse tribe, in alliance with the Wallawallas, made continued war upon the Snakes. Lewis and Clark, when in that country, presented an American flag to the Cayuse Indians calling it the flag of peace. After it became known to the Snakes, that such a flag existed, a party of Cayuses and Wallawallas placed it in the hands of an Indian, who still survives, and proceeded with him to the Grand Round, where, by planting the flag, the country was consecrated to perpetual peace. Hence it is, that the three tribes annually meet in this most, enchanting valley, for the purpose of exchanging commodities, and to dig the cammass-root, that grows here in large quantities, and is extensively used by them as food.

The country in the vicinity of Powder river is represented as being an interesting one, and as having a deep soil, black and very fertile, as well among the hollows of the hills, and on the elevated flats, as on the river bottoms.

These streams are nearly all bordered, in most places, by mountains, generally of volcanic origin; and some of them rush with great violence through deep and very narrow chasms, called cañons (pronounced *kanyon*). Like the northern branches of the Columbia, they abound in cascades and rapids, which either make navigation difficult, or render it wholly impracticable. In some of the small valleys of these rivers, I found the soil fertile, and well supplied with grass. This is especially the case with the valleys of Lewis and Portneuf rivers, in the vicinity of Fort Hall. There is generally, however, a great scarcity of timber. Many of them are poor and sandy. In short, the absence of timber, almost uniform down to this point, and the scarcity of water, give to the greater part of the valley of Lewis river the appearance of a desert.

A great difference has been observed in the temperature of the water of the Columbia and that of Lewis river. The former is quite cold, which is caused by its flowing from the cold snow peaks of the north and northeast. The water of Lewis river, on the other hand, is quite warm. This is owing to the circumstance, that it derives its water from the east, southeast, and south, without being cooled by snow and ice.

The width of the Columbia, a short distance below its junction with Lewis river, is about three-fourths of a mile. Thence it flows nearly south to Wallawalla river, which it receives from the south, in latitude 46° , $4'$, north, longitude 41° , $50'$, west from Washington. Here it is 1286 feet above the level of the sea, and about 1100 yards wide.

The soil upon this stream, and for a short distance back, is usually fertile. The same may be said of that

upon its small tributaries. To the north and south are extensive prairies, which in the season when there is sufficient moisture to support vegetation, are green and luxuriant, but which the great heat of the month of July dries in such a manner that the grass retains all its juices, and is thus converted into hay, of which the cattle are exceedingly fond, preferring it to the young grass, which is also less nutritious.

Upon the Wallawalla and its tributaries grows a vast quantity of service-berries, two kind of currants, whortleberries, and gooseberries. These the Indians provide in their season for food during the winter.

From the junction of the Wallawalla, the Columbia takes its last turn to the westward, pursuing its rapid course until it meets with the Umatilla from the south, in about latitude 45° , $50'$, north, longitude 119° west from Greenwich. This stream is very much like the Wallawalla, having a bed of volcanic rock, which in some places is split into fissures.

From the junction of the Umatilla, the Columbia flows in its general course westward, until it receives John Day's river from the south, in about latitude 45° , $40'$, north, longitude 120° , $30'$, west from Greenwich. This is a clear and beautiful stream, with a swift current flowing over a bed of rolled stones. It is sunk, like most other streams of Oregon, in a deep gorge-like valley. The country is a very rocky one, marked with high basaltic walls, which give it a rugged aspect. Great numbers of salmon are taken in the river by the Indians; and there are, in consequence, many temporary lodges upon its banks.

The steep hills and the rugged and rocky aspect of the vicinity, prevent it from being adapted to agricul-

tural purposes. The absence of grass excludes the idea of its being a grazing region ; yet it is, to say the least, a very peculiar one, for the water abounds with salmon, and the land with rattlesnakes, wolves, American lions, and wild Indians.

From the junction of John Day's river, the general course of the Columbia is still westward, until it receives the Falls or Shutes river (*Rivière aux Chutes*), from the south, in about latitude 45°, 30', north, longitude 120°, 30', west from Greenwich. This may be called a large river, although its rocks and rapids probably render it unnavigable. It is the same of which Lewis and Clarke speak under the name of the Towahnakioks. When high, this river rivals the Columbia in size, and seems to merit its characteristic name, which it owes to one of its many falls, some forty miles above. At its entrance into the Columbia, it is divided into several arms, which inclose a rocky island. It enters the Columbia under a cloud of mist and spray, and with a roar of falls and rapids, which make it a favorite fishing station among the Indians occupying the country in the vicinity, on both sides of the river. There is likewise an important salmon fishery, twenty-five miles up the Shutes.

The Columbia, from the junction of John Day's river to this point, is filled with rocks, which occasion dangerous rapids. The banks on either side of the Columbia are rocky, and often precipitous ; and the intervening country is decidedly volcanic. This part of the Columbia is navigable by boats ; but the passage is always attended with much danger from the tortuous course of the river, and the number of rapids and whirlpools.

The *Falls of the Columbia* are situated a few miles above what are known as the Dalles of the Columbia, in contradistinction to the Upper Dalles and the Lower Dalles, both of which are far up the north or north-eastern branch of that stream. The Falls are formed by ledges of rocks, over which the river pours its mighty volume, between perpendicular walls of basalt, with such a roaring sound as almost to confuse the senses. The fall, however, though considerable, is annually submerged by the waters which back up from the basin below, constituting a great natural lock at this place. At one season may here be seen cascades of twenty feet in height, while at another the current swells itself up into little more than a rapid, so as even to be navigable for boats. The stream, besides being confined within a narrow channel, is interrupted at this place by rocks and islets, which cause a great roaring of the water.

From the Falls the Columbia pursues its way westward a few miles through an elevated region about ten miles in extent, of solid dark rock, rising into irregular cliffs, hills, and mountains, when it flows through a place known as the Dalles, probably one of the most remarkable places upon the river. Commander Wilkes says:—

“The river is here compressed into a narrow channel three hundred feet wide, and half a mile long; the walls are perpendicular, flat on the top, and composed of basalt; the river forms an elbow, being situated in an amphitheatre, extending several miles to the north-west, and closed in by a high basaltic wall. From appearances, one is led to conclude that in former times the river made a straight course over the whole; but,

having the channel deeper, is now confined within the present limits.

“Besides the main channel, there are four or five other small canals, through which the water passes when the river is high; these are but a few feet across. The river falls about fifty feet in the distance of about two miles, and the greatest rise between high and low-water mark is sixty-two feet. This great rise is caused by the accumulation of water in the river above, which is dammed by this narrow pass, and is constantly increasing until it backs the waters, and overflows many grounds and islands above. The tremendous roar arising from the rushing of the river through this outlet, with the many whirlpools and eddies which it causes, may be more easily imagined than described.”

The narrowest place of this passage for the waters of a river that drains twelve degrees of latitude and as many of longitude, is no more than 174 feet in width, with a wall having an average height of twenty-five feet above the water.

Up to this point a tree is seldom seen. Here, however, an entirely new description of country is entered; the line of woods which extends to the Pacific here commences. The belt of forests preserves very nearly the same width in all parts of Oregon south of 48°.

The country about the Dalles, and for several miles in the vicinity of it, is much broken. There are, however, some plains and table-lands, which are considered as very valuable, being well watered with springs and small streams; excellent for grazing, and well supplied with valuable pine and oak. The soil varies in its productive power.

For about five miles below the Dalles, the bed of the river itself is narrow, and very deep; but, instead of being confined within basaltic walls, the country opens out into grassy bottoms on the left. The Dalles is one of the great salmon fisheries in Oregon. This fish is taken here in great numbers during six months of the year; and the number which might be taken by means of the proper appliances and effort, is almost without limit. Sturgeon are taken at this place during the greater part of the year.

From the Dalles the Columbia pursues its onward course about forty miles to the Cascades, where, in search of a passage to the ocean, it breaks through the Presidents' Range. After leaving the Dalles, the river assumes a general character; high, steep, rocky hills shut it in on either side, rising abruptly in many places to the height of 1500 feet above the water, and becoming more broken and elevated, as the river approaches the Presidents' Range. The navigation between the Dalles and the Cascades is smooth and good, and the water is of sufficient depth for vessels drawing twelve feet.

A short distance above the Cascades, there is a sunken pine-forest, the stumps of which are rotten, and so matted together by the roots as to prevent their separation, and in low water they are, in some places, exposed to view. Between this part of the river and the Dalles, the wind usually blows a gale from the westward, in the summer almost daily.

A short distance below the sunken forest, the river makes an abrupt turn to the south, and for more than two miles is confined to a passage no more than 450 yards in width, through which the whole mass of water

pours with great impetuosity, forming high waves, and fearful whirlpools, and falling about forty feet in the above distance. The river forms what is called the Cascades, in breaking over a point of agglomerated rocks, leaving a handsome bay to the right, with several rocky pine-covered islands, and the mountains sweep at a distance around a cove, where several small streams enter the bay. When the river is low, these rapids are passed by skillful boatmen, but it is frequently hazardous, and many lives have been lost there.

There are two portages here. At the lower one only half the goods are taken out, and the boats are *cordelled* up half a mile. The boatmen then secure the goods, upon their backs, in packs of ninety pounds weight, by a band which passes round the forehead, and under and over the bale. One stoops, and adjusts his load; another puts ninety pounds more upon his back, with which the voyageur then proceeds to the end of his portage, where the goods are again placed in the boats, which are then *cordelled* up to the Old Portage, so called in contradistinction to the lower one, which is known as the New Portage. For a small present of tobacco, beads, calico, or almost any thing, the Indians will assist at all these portages.

Up to this point, distant about 125 miles, from the mouth of the Columbia, ships have no difficulty in approaching. In coming up, the country bordering on the Columbia, is low, until the Cascades are approached, with the exception of several basaltic cliffs, some of which are two hundred feet high, bearing a striking resemblance to turreted castles.

“Proceeding down the river, there are,” says Col.

Fremont, "some very rocky and high steep mountains which sweep along the river-valley at a little distance, covered with forests of pine, and showing occasionally lofty escarpments of red rock. Nearer, the shore is bordered by steep escarped hills and huge vertical rocks, from which the waters of the mountain reach the river in a variety of beautiful falls, sometimes several hundred feet in height. Occasionally along the river occurred pretty bottoms, covered (in November) with the greenest verdure of the spring. To a professional farmer, however, it does not offer many places of sufficient extent to be valuable for agriculture; and after passing a few miles below the Dalles, I had scarcely seen a place on the south shore where wagons could get to the river. The beauty of the scenery was heightened by the continuance of very delightful weather, resembling the Indian summer of the Atlantic. A few miles below the Cascades, we passed a singular isolated hill; and in the course of the next six miles occurred five very pretty falls from the heights of the left bank, one of them being of very picturesque character; and toward sunset we reached a remarkable point of rocks, distinguished, on account of prevailing high winds and the delay it frequently occasions to the canoe navigation, by the name of Cape Horn. It borders the river in a high wall of rock, which comes boldly down into deep water; and in violent gales down the river, and from the opposite shore, which is the prevailing direction of strong winds, the water is dashed against it with considerable violence. It appears to form a serious obstacle to canoe traveling; and I was informed by Mr. Perkins, that in a voyage up the river, he had been detained two weeks

at this place, and was finally obliged to return to Vancouver. The winds of this region deserve a particular study. They blow in currents, which show them to be governed by fixed laws ; and it is a problem how far they may come from the mountains, or from the ocean through the breaks in the mountains which let out the river."

"The hills," he continues, speaking of his passage from the Cascades to Fort Vancouver, "here had lost something of their rocky appearance, and had already begun to decline. As the sun went down, we searched along the river for an inviting spot ; and, finding a clean rocky beach, where some large dry trees were lying on the ground, we ran our boat to the shore ; and, after another comfortable supper, plowed our way along the river in darkness. As we advanced, the hills on both sides grew constantly lower ; on the right, retreating from the shore, and forming a somewhat extensive bottom of intermingled prairie and wooded land. In the course of a few hours, and opposite to a small stream coming in from the north, called the Tea Prairie River, the highlands on the left declined to the plains, and three or four miles below disappeared entirely on both sides, and the river entered the low country. The river had gradually expanded ; and when we emerged from the highlands, the opposite shores were so distant as to appear indistinct in the uncertainty of the light. About ten o'clock our pilots halted, apparently to confer about the course ; and after a little hesitation, pulled directly across an open expansion of the river, where the waves were somewhat rough for a canoe, the wind blowing very fresh. Much to our surprise, a few minutes

afterward we ran aground. Backing off our boat, we made repeated trials at various places to cross what appeared to be a point of shifting sand-bars, where we had attempted to shorten the way by a cut-off. Finally, one of the Indians got into the water, and waded about until he found a channel sufficiently deep, through which we wound along after him, and in a few minutes again entered the deeper water below. As we paddled rapidly down the river, we heard the noise of a saw-mill at work on the right bank; and, letting our boat float quietly down, we listened with pleasure to the unusual sounds, and before midnight, encamped on the bank of the river, about a mile above Fort Vancouver. Our fine dry weather had given place to a dark cloudy night. At midnight it began to rain; and we found ourselves suddenly in the gloomy and humid season" (November 8th), of the country lying between the President's Range of mountains and the Pacific, and which, "for a considerable distance along the coast, supplies the place of winter."

About fifty miles from the ocean the Columbia receives the Cowlitz river from the north. This I will more particularly describe hereafter. The Columbia at the junction of the Cowlitz, is a broad, bold stream of great majesty and volume. A short distance below this point, and on the north side of the river is a high conical hill, which has received the name of Mount Coffin, from its having been a place where the Indians in the vicinity deposited their dead.

About fifty-five miles above the mouth of the Columbia, there is a large rock in the river, known as Coffin Rock. In my journal notes, under date of October 22, 1847, is the following:—

“Upon this rock the Indians who lived in the vicinity formerly laid their dead in canoes. The canoe of the deceased was, according to the custom of the tribe, hauled up upon the rock, after which the body of the dead, together with all that he or she had owned in life, was carefully deposited, and then covered with bark. I saw a string of glass and copper beads at the side of a decayed canoe. There were about eighteen canoes in a state of decay, which would indicate that they had been there some twenty or thirty years. Many of them contained the bones of several bodies. Bones were scattered all over the face of the rock, and multitudes had doubtless fallen into the river.”

On the side of the river opposite to Mount Coffin, is a high barrier of trap rocks covered with majestic pines.

Under date of October 25th, 1847, I find the following brief entry in my journal notes:—

“Captain Roland Gelston and myself, with two good rowers, proceeded in a gig on a visit to Mount Coffin, an ancient Indian burial place. Most of the canoes in which the dead had been deposited were consumed by a fire, which accidentally broke out among the dry leaves and brush a few years ago, from the camp-fire of a party of the U. S. Exploring Expedition, who encamped over night at this place. I found the remains of a canoe in which the wife of a chief had been deposited, lying upon the rocks. Among the half calcined bones I counted sixty-six finger rings which had probably been purchased for seven beaver skins, each worth at that time \$7. I also counted a great number of beads which Mr. Lattee, who had

spent many years among the Indians while in the employment of the Hudson Bay Company, said had cost about twenty beaver skins. I counted also forty ankle and wrist ornaments which, in like manner, I learned had been obtained at the rate of two for a beaver skin. The entire cost, therefore, of the ornaments of this specimen of the aristocracy of the Columbia river Indians was about forty-seven beaver skins, which were equivalent to about \$329. *Sic transit gloria mundi.*"

Ten miles lower down, the Columbia turns nearly at right angles, taking its course along a barrier similar to the last mentioned formation, which it here meets on its west side, and which rises to the height of eight hundred feet above the water. Upon the side opposite this barrier is a beautiful and fertile prairie, having oaks scattered over it at considerable intervals. This is known as Oak Point. Mount John Adams which may, in clear weather, be seen when eighty miles at sea, is in full view here, and adds greatly to the interest of the scene.

All the waters collected from these various sources, as well as from other rivers, which I will presently proceed to describe, flow westward from Fort Vancouver in a vast volume, about one mile in width, till it approaches within about fifteen miles of the ocean, when it expands to about five miles, and finally rushes into the Pacific by a mouth four or five miles wide, between Point Adams on the south and Cape Disappointment on the north, in latitude, $46^{\circ} 18'$, north, and longitude 124° west from Greenwich, or 47° west from Washington.

Cape Disappointment is a bluff promontory, about

three hundred feet high, presenting a precipitous side of rock to the dashing waves, but covered in the rear with pines and firs, and sloping to the mainland, with which it is connected by a low and narrow neck, stretching across the peninsula from Baker's Bay to the deep water on the north side of the cape. A canal cut through this low and narrow neck would, without any thing further, remove every obstacle to ships entering this river. Point Adams terminates the entrance on the south side. This is a low, sandy point of land, which stretches into the ocean. The entrance to the mouth of this river is rendered somewhat difficult by shoals, forming a sort of flat bar, on which the winds and irregular currents sometimes produce foaming and tumultuous breakers, extending a considerable distance out into the ocean.

Com. Wilkes says: "I witnessed the Columbia at its greatest heights, and no idea can be formed of it, unless seen at both epochs. The flood is a very grand sight from the banks of the river at Vancouver, as it passes swiftly by, bearing along the gigantic forest trees, whose immense trunks appear as mere chips. They frequently lodge for a time, in which case others are speedily caught by them, which obstructing the flow of the water, form rapids, until by a sudden rush the whole is borne off to the ocean, and in time lodged by the currents on some remote and savage island, to supply the natives with canoes. I also witnessed the undermining of large trees on the banks, and occasional strips of soil: thus does the river yearly make inroads on its banks, and changes in its channels.

"From the circumstance of this annual inundation of the river prairies, they will always be unfit for hus-

bandry; yet they are admirably adapted for grazing, except during the periods of high water.

“The temperature of the waters of the Columbia, during the months of May and June, was 42° , while in September it had increased to 68° .”

The Wilhamette rises in the President's Range of mountains, near the forty-second parallel of latitude, and generally flows west of north, until it empties into the Columbia, in about 45° , $40'$ —nearly one hundred miles from the Pacific Ocean—by two mouths; the first being about five miles below Fort Vancouver, and the second fifteen miles lower down. The triangular island thus formed is known as Wappatoo Island, thus named from a root much used by the Indians who formerly inhabited it. It is very fertile, though in many places subject to inundation, which probably gives to it much of its fertility. The soil is alluvial, and is probably formed by an accumulation of mud and drift against rocks. It is covered with an abundance of timber and rich pasturage. The Hudson Bay Company have a large dairy upon it; the milch cows numbering, perhaps, about one hundred, each of which is said to yield about sixty pounds of butter annually. The Company keep in addition about three hundred head of breeding cattle, that roam over the island at will.

In the interior of this island there is a rudely-chiseled block of black basalt, four feet in height, and three feet in diameter. It is of great antiquity, and the superstition of both the savages and of the dairymen has invested it with powers of “great medicine.” They believe that to touch it would be a sacrilegious offense that would be certain to bring down upon the head of

the rash and inconsiderate offender the severest vengeance of the tutelary deity of this lonely island pillar. Mr. Douglass, of Fort Vancouver, not having the fear of such things before his eyes, and doubtless "at the instigation of the devil"—as we say in indictments—was so rash a few years ago as to attempt to move this mysterious shrine from its place. The dairyman, however, was not only incensed but greatly alarmed, because the demon had thus been affronted; and although Mr. Douglass expostulated with him upon the folly of his fears, yet the subject was one upon which "much might be said on both sides;" and a tremendous storm having arisen during the night, our superstitious and terrified Frenchman was sure that the indignant goblin was about to pull down the house over the head of the impious Mr. Douglass. There are also some farms. It is seven miles on each of two of its sides, and fifteen on the side next to the Columbia. It is generally about one-fourth of a mile wide. For the distance of about four miles from the junction of this stream with the Columbia, its banks are low, and the latter frequently during its annual rise backs its waters into the Wilhamette, and overflows these low grounds. Above this point the banks become high and precipitous, and so continue for many miles up.

The Wilhamette receives the Clackamus and Putin rivers (which name has been corrupted to Pudding) from the east, and the Twalatin and Yamhill rivers from the west. Besides these rivers, it also receives numerous less important tributaries. Ships drawing twelve or fourteen feet water, ascend the Wilhamette to the pleasant and flourishing village of Portland, on the left bank of the river, twelve miles below

Oregon City. Vessels could ascend much higher, but they cast anchor at Portland, because there are warehouses and a convenient wharf at that place. At the junction of the Clackamus with the Wilhamette, about nineteen miles above the union of the latter with the Columbia, and one mile below Oregon City, is a serious obstruction, in the dry season, to the navigation of the river by vessels drawing more than three feet water. This is occasioned by a bar which has been formed by the great quantities of sand and gravel brought down by the very rapid waters of the Clackamus. This obstruction could be overcome by constructing a dam at a very narrow place in the river, about two miles below, so as to throw the water back over the bar. A canal, of easy construction, around the dam, and about one-third of a mile in length, would easily pass vessels up and down. Then there would be no further obstruction until arriving at Oregon City, which is situated upon the right bank of the river, at the Falls of the Wilhamette, and one mile above the bar at the mouth of the Clackamus. These falls are a further and more serious obstruction to the navigation of this river. The rivers of Oregon are usually sunk far below the common surface of the earth. The greater number of them are in deep gorges, like rivers of an inner world, brought to view by some convulsion of nature; and they generally have high basaltic rocks on each side, overhung by immense firs that cast their dark shadows upon the waters below. Nor is this stream at this place an exception. The river sinks two hundred feet below the surface, and forms a tremendous chasm, with high, steep, and rugged hills on the one side, and precipitous basaltic rocks, hanging

FALLS OF THE VIRAMETTE.



with threatening and frowning grandeur, on the other. Standing on the immense precipice upon the right bank, the beholder looks down upon the whole scene which is spread out before and far below him. He sees below the falls the beautiful, bustling little village of Oregon City, with its neatly-painted white houses, and its six or seven hundred inhabitants. Upon the opposite side of the river, and in full view, are the less pretending villages of Multnomah and the Robin's Nest. The incessant clack of two merchant-mills, and the confused noise of two saw-mills, with the Babel of the languages of English, Americans, Kanakas, and Indians, while they subtract from the poetry of the scene, add much to its prosaic reality. In the heart of the chasm is a varied and beautiful assemblage of a thousand forms of running water. About a mile above, the stream gradually increases in velocity, as if preparing to make the plunge. It rapidly augments in force and momentum. At length the tremendous flood of waters falls, with a single and hurrying leap, over a precipice into the foaming and boiling pool twenty-five feet below, where the curves and cavities into which the channel has been worn, cause the clear waters to assume a thousand varied forms; and when the sun shines, a beautiful rainbow, that changes its position every moment, is formed in the cloud of ascending spray.

Although this tremendous cataract now forms an impassable barrier to vessels, yet nature has left two natural locks, which need very little more than the gates to admit of steamboats being taken over. These falls afford, also, an almost inexhaustible water power. Above this obstruction the Wilhamette is again navi-

gable for light-draught steamboats, for a distance of one hundred, or, perhaps, one hundred and fifty miles.

The following is an extract from Com. Wilkes' Narrative of the U. S. Exploring Expedition, vol. iv., pp. 344-346:—

“At the time of our visit to the falls, the salmon fishery was at its height, and was to us a novel as well as an amusing scene. The salmon leap the fall; and it would be inconceivable, if not actually witnessed, how they can force themselves up, and after a leap of from ten to twelve feet, retain strength enough to stem the force of the water above. About one in ten of those who jumped would succeed in getting by. They are seen to dart out of the foam beneath, and reach about two-thirds of the height, at a single bound; those that thus passed the apex of the running water succeeded, but all that fell short were thrown back again into the foam. I never saw so many fish collected together before; and the Indians are constantly employed in taking them. They rig out two stout poles, long enough to project over the foaming caldron, and secure their larger ends to the rocks. On the outer end they make a platform for the fisherman to stand on, who is perched upon it with a pole thirty feet long in his hand, to which the net is fastened by a hoop four feet in diameter; the net is made to slide on the hoop, so as to close its mouth when the fish is taken. The mode of using the net is peculiar: they throw it into the foam as far up the stream as they can reach, and it being then quickly carried down, the fish who are running up in a contrary direction, are caught. Sometimes twenty large fish are taken by a single person in an hour; and it is

only surprising that twice as many should not be caught."

No country I have yet seen equals the beauty of the valley through which this river flows. The valley, including the hills susceptible of having good farms made upon them, has an average width of, perhaps, sixty or eighty miles. The scenery, which is beheld from almost any portion of the open country, is not only beautiful, and eminently calculated to excite the imagination, but it is entirely unique.

The surface of the earth presents, in many places, swells of unequal elevation, covered with grass, having no undergrowth of shrubs and bushes, and being dotted over with the most beautiful oaks, that almost cheat the imagination into the illusion that they were planted and tended by the hand of man. Open prairies of inexhaustible fertility, and having no resemblance to our western prairies, but swelling into hills, and then again sinking into valleys, stretch away in picturesque beauty.

The features of nature as looked upon in this enchanting valley, are indeed beautiful; but her snow-covered peaks and her long line of mountains are not only beautiful but sublime. In the months of May and June every hill and valley is covered with the green of abundant vegetation, that heightens the enchantment of a scene to which the translucent waters of the Wilhamette give a softer character to an assemblage of objects constituting one of the most beautiful pictures in nature.

I am persuaded that no one of a cultivated taste and possessing feelings refined and purified by the study of nature in all her moods and aspects, can contemplate

without vivid emotions of pleasure the character of this peculiar scenery. It is indeed comparatively a wilderness, and civilization has here made but little progress, but the mind swells, and the spirit is refreshed by the prospect of future improvements as stupendous as the everlasting snow-peaks the beholder looks upon.

The Wilhamette is a stream which the ancient poets would have peopled with nymphs, and celebrated in song. Its waters are transparent, and upon their bosom a great variety of ducks, white geese, cranes, swans, pelicans, ill-omened loons, and a multitude of water-fowls, with their variegated vestments, glide gracefully, or patter their broad bills among the reeds and grasses upon the shore, or congregate in great numbers upon the sand-bars.

The range of mountains that form the western limit of the valley, presents a great variety of elevations, covered to their summits with the most beautiful forests of evergreens consisting of pines, firs, hemlock, and different varieties of cedar.

Far off in the east, the Presidents' Range of mountains bounds the valley in that direction, many of the peaks, covered with the accumulated snows and ices of centuries, are in view at the same moment, and from the same point of observation. The warm sun of July shines upon them and they glitter in dazzling whiteness in mid-air, and in awful contrast with the dark basaltic rocks, which in some places present pinnacles, and in others huge and confused massive heaps, and in others black and rugged precipices that arrest the clouds, and have, during unknown centuries, defied the power of earthquakes and storms, and still continue to contrast their threatening and savage mountain sub-

limity with the picture of the lovely landscape painted upon the sleeping waters of the beautiful Wilhamette.

Many of the prairies of the valley are several miles in extent. But the smaller ones, especially those known as the Twalatin Plains, where the woodland and plain alternate frequently, are the most beautiful, although the prospect is more confined. These plains vary from a few acres to several hundred—sometimes two or three thousand. They are not uniform in their surface, but are broken into gentle and graceful grassy swells. Deep, shaded recesses along the border of the timber, remind the traveler of the inlets of some quiet, sylvan sheet of water.

The space between these small prairies is covered with an open forest of tall, straight evergreens. Here, even before the silence of the scene was broken by the voice of the emigrant and the sound of his ax, it was, if not a desert, at least a solitude, that blossomed as the rose, and a wilderness that was stripped of every thing rude and wild. The clusters of trees are so beautifully arranged, the openings so gracefully curved, the grounds so open and clean, that it seems to be the work of art; and the beautiful avenues are calculated to cheat the imagination into the belief that they lead to some farm-house or pleasant village.

It will thus be seen that the Wilhamette river and its tributaries water a most fertile and delightful region.

The Clackamus river rises in the Presidents' Range of mountains, in the vicinity of Mount Washington. It is a bold and rapid stream; and is cold even in midsummer, its waters being principally derived from a snowy mountain. In high water it is navigable for boats of light draught.

The Tualatin river rises in the elevated and mountainous region bordering upon the coast, and after flowing about eighty miles, discharges its waters into the Wilhamette, about one mile above Oregon City.

The Yamhill rises in the same Coast Range, and after flowing about eighty miles, empties into the Wilhamette about twenty-five miles above Oregon City.

The La Creole river (corrupted to *Rickreall*) is an unnavigable, but beautiful and bold stream, which has its source in the Coast Range of mountains in Polk county. It is a valuable stream, as affording many mill-sites, and watering one of the most interesting and delightful regions I have ever seen. And this may be said of the whole of Polk county.

The Putin (pronounced *Put-in*, but corrupted to *Pudding*), has its source in the Presidents' Range of mountains.

The Cowlitz is a beautiful river, taking its rise east of Puget Sound, in the Presidents' Range of mountains, near Mount Harrison, and after many short turns, emptying into the Columbia, about fifty miles from the ocean. Its banks are tolerably high, until it approaches the Columbia. It waters a large extent of country eminently adapted to grazing and farming. The soil along the river appears to be of a good quality, clayey loam, with vegetable mold over trap rock and sandstone. The prevalent trees are poplars, soft maples, ash, fir, pine, and cedar, with some laurel, where the prairies are so low as to be flooded in the month of May. Lignite is found in several places along this river, but the largest quantities are obtained above the East Fork. Com. Wilkes says that "the route by the way of the Cowlitz will, in all probability,

be that which will hereafter be pursued to the northern inlets and sounds."

Between it and Puget Sound, a distance of about sixty miles is well watered by streams and small lakes, and consists of alternate open plains and rolling or hilly woodlands, well adapted for tillage and pasturage, and possessing, in addition to a genial climate, common to all Western Oregon, a good soil, beautiful small prairies, excellent timber, great water-power, and a seaport opening to an advantageous market.

As a proof of the occasional height of the waters of this narrow and rapid river, drift-wood and other deposits are often found after the annual freshets, lodged in the high and overshadowing branches, forty feet above the usual level of the stream. The current at high water, especially, is very swift.

The T'chehalis river (pronounced by the settlers Chehalis) has its source in the mountainous region north of the Columbia, by three distinct heads. After receiving several streams, having their source south of Puget Sound, it flows westward, preserving a winding and circuitous way, alternately, through elevated naked plains, and high hills, covered with dense forests of white, yellow, and red fir, and finally discharges itself into Gray's Harbor, a small bay opening to the Pacific under the parallel of 47°.

The following is a description, by Com. Wilkes, of the manner in which the Indians take salmon on the T'chehalis river:—

"This is effected by staking the river across with poles, and constructing fikes or fish-holes, through which the fish are obliged to pass. Over these are erected triangles to support a staging, on which the

Indians stand, with nets and spears, and take the fish as they attempt to pass through: the fish are then dried by smoking, and prepared for future use. The smoked fish are packed in baskets; but the supply is far short of their wants."

The scenery between this river and Nisqually, at the south end of Puget Sound, is a succession of the most beautiful parks.

Near this river is a narrow belt of woodland, which divides the stronger soil between that and the Cowlitz, from the lighter and more sandy soil between the T'chehalis and Puget Sound, no clay being found to the northward, as far as the latter place, and no sand to the southward, as far as the Cowlitz river.

North of the T'chehalis river, the open plains become more extensive, although there is enough of timber for farming and mechanical purposes. In the direction of the Sound, there is a space of about twelve miles that is literally covered by mounds or cones, such as I have described in my journal as having been seen in the sixty-mile dry drive between Ogden's river and the Black Rock. The mounds or hummocks between the T'chehalis and Puget Sound are from twelve to twenty feet in diameter, and from five to fifteen in height. They all touch each other, and are the work of nature, and not of art, as is proved by the fact, that there are no intervening pits, and that their number excludes the idea that they are the result of human labor. That they are, at least, ancient, is proved by the fact, that large trees grow upon them.

There are several other rivers on the north side of the Columbia, which, however, are unimportant, except as watering the country, and affording water-power.

Besides those south of the Columbia, already noticed, is the Tlamath river, which takes its rise in Tlamath Lake, and empties into the Pacific Ocean, in latitude 42° , north; and the Umpqua river, which rises in the Presidents' Range, and empties into the Pacific Ocean, in north latitude about $43^{\circ}, 33'$. These are clear, rapid, and cold streams, flowing, in many places, over rough and rocky beds, and through deep cañons.

The Umpqua, it is said, is generally kined, for about one hundred miles, by precipitous and rocky banks, covered with weeds. The tide runs up near thirty miles, and is then checked by a series of rapids and currents, which, commencing there, occur at frequent intervals all the way up to its source.

The Umpqua river is navigable from the ocean up to the place where the Umpqua and Elk rivers unite, about three miles below Fort Umpqua, for vessels drawing not more than six feet water. The entrance to this river is narrow, with low sands on the north and south sides, which leave no more than nine feet water on the bar. The river at the fort, which is thirty miles distant from the sea, is 120 yards wide, quite rapid, and so filled with rocks as to be navigable for canoes only. The soil on each side of the river is good. That at the fort, the only place where ground has been cultivated, produces plentiful crops of Indian corn, wheat, and potatoes. Cattle do well upon the grass of the country.

The Tlamath river is about 150 miles in length, and may be regarded as the natural inland water boundary on the south, between Oregon and California. The face of the country around and near the banks of this stream is less undulating; and trappers report that it

rises much higher than that along the Umpqua, in its agricultural and pastoral capabilities. The immense pine trees, however, disappear, and are succeeded by groves of short myrtle, which diffuse a delicious fragrance, and impart a most bewitching charm to the country. Perhaps, however, some allowance will be made, if we reflect that the imaginations of trappers are very liable to be much excited upon passing from a desert into a country which, although very fertile, when compared with that over which they had recently passed, is yet not remarkable, when compared with better countries. It is probable, however, that if it is not adapted to agriculture, it is, nevertheless, a grazing region.

These two rivers drain a country that is bounded on the north by the mountains in which the Wilhamette has its sources; on the west by the ridge of hills or low mountains which run along the shores of the Pacific; on the south by the Tlamath Range; and on the east by the Presidents' Range.

That portion of the Tlamath valley through which I traveled did not appear to me to be either extensive or very inviting to the agriculturist. There appeared to be a great deficiency of good timber, nor did I see enough of good soil to warrant the opinion that an extensive settlement could be sustained. Trappers, however, who have seen other portions of this valley, near the coast, say that it is extensive, beautiful, fertile, well watered, well wooded, and that it has a most pleasant climate.

I have not seen the best portion of the Umpqua valley, but the lands of those portions which I have seen are far superior to any seen by me in the Tlamath

valley. It is well watered, the soil is rich, the climate is remarkably mild, the mountains are well supplied with good timber, and its streams with excellent fish. The country must necessarily be healthy, for there are no local causes to produce disease. This remark applies with equal force to every part of Oregon, of which I have any knowledge, except to a strip of land about two miles wide and four miles long, lying immediately above the upper mouth of the Wilhamette, and along the Columbia. Here the land is low, inundated at certain seasons, and subject, in consequence, to fever and ague.

None of the rivers of Oregon, as I have already remarked, except the Columbia and the Wilhamette are navigable by any other than boats of light draught. Besides these rivers which water every part of the habitable portions of Oregon, the country is well supplied with a multitude of creeks, rivulets, and springs, of the very best water.

Only a few remarks remain to be made respecting the great system of rivers which have their outlet into the ocean between Cape Disappointment and Point Adams. The Columbia and its tributaries drain a country embracing about twelve degrees of latitude, and as many of longitude. It is the only stream upon the western side of the continent embraced within the limits of our possessions—that is to say, between the thirty-second and the forty-ninth parallels of north latitude, which penetrates far into the interior. All the other streams either rise to the east, and after flowing a comparatively short distance west, discharge themselves into the Pacific Ocean, as the Tlamath in Oregon; or they have their sources in the range of mountains

which run parallel with the whole Pacific coast, and flow in a direction lateral to the coast, as the San Joaquin, and the Sacramento in Upper California, both of which discharge their waters into the east end of the Bay of San Francisco, the former flowing north, and the latter south.

It is evident, therefore, that although there are some obstructions to the navigation of the Columbia, it is, nevertheless, the only river west of the Rocky Mountains which can be used for the purpose of communicating with the interior. It is believed that every obstruction to its navigation can be overcome by the expenditure of a reasonable sum. It would then be invaluable for the purposes of navigation and commerce.

Almost all the principal rivers in Oregon are rapid, and sunk much below the common level of the country. They generally flow between perpendicular banks of either basalt or trap rock. During the seasons of the rise, many of them frequently rise above their banks, in places where these are low, and overflow, in consequence of bars, dalles, and other obstructions. These floods are produced by either the long continued rains of the rainy season of Western Oregon, or by the melting of the snow in the elevated mountainous regions of Middle and Eastern Oregon. The Columbia is principally affected by the latter, and the rivers having their sources west of the Presidents' Range by the former. The greatest rise of the Wilhamette takes place in February, while that of the Columbia is in May and June.

CHAPTER XVI.

LAKES, ISLANDS, AND CAPES OF OREGON.

TH**ERE** are, in the various portions of Eastern and Middle Oregon, many small lakes, most, if not all of which, have already been mentioned in remarking upon the various rivers.

South of New Dungeness, and along the shore, is Protection Island, which entirely covers Port Discovery on the north, and renders that port completely defensible. Com. Wilkes, who explored it, says:—

“The description of Vancouver is so exactly applicable to the present state of this port (Port Discovery), that it was difficult to believe that almost half a century had elapsed since it was written. The beautiful woods and lawns of Protection Island, in particular, exist unchanged. The lawns still produce the same beautiful flowers and shrubs, and although closely surrounded by dense woods, do not seem to have been encroached upon by their luxuriant growth, although there is no apparent reason why it should not long ere this have overrun them.”

There are a few pleasant and fertile islands of limited extent in that part of Admiralty Inlet known as Puget Sound. Of these little is known, the most of them not even having names.

Whidby's Island, in Possession Sound, is about forty

miles long. It has a good soil, and an abundance of the most excellent timber, and many open plains of great beauty, ready for the plough. It is in the possession of the Sachet tribe of Indians, who have here a permanent settlement, and are collected together in villages scattered over the island, consisting of well-built lodges of timber and plank. At the appropriate season wild flowers are in great abundance and variety upon this island; and strawberry vines, bearing a very large fruit having a fine flavor, appear to cover almost the whole surface.

The only island between Cape Flattery and Cape Mendocino, which has been thought worthy of a name, is one close to the continent, near latitude $47\frac{1}{2}^{\circ}$, called by the Spaniards the Isle of Grief, in commemoration of the murder of some of their men on the mainland in the vicinity. It afterward received the appellation of Destruction Island, from a similar loss sustained there by a British vessel in 1787.

Along the coast of New Albion, which is that portion lying north of the forty-ninth parallel, and owned by Great Britain, there are many islands. So numerous are they, that they mark the whole coast, and present together a surface believed to be equal to fifty thousand square miles. But a description of them does not lie within the scope of the present work.

On the coast of Oregon there are several capes, none of which, however, extend far into the sea. Of the most remarkable of them, I may mention Cape Blanco, nearly under the forty-third parallel. It is the extremity of a line of highlands which separates the valley of the Umpqua on the north from the Tlamath valley on the south.

Cape Perpetua is in about latitude 44° ; Cape Foulweather in latitude $44^{\circ}, 42'$; Cape Lookout in $45^{\circ}, 30'$; Cape Disappointment in latitude $46^{\circ}, 18'$ longitude 47° west from Washington; and Cape Flattery in about latitude $48^{\circ}, 27'$. The latter is a point of land where the Straits of Fuca, which separate the mainland from Vancouver's Island, join the Pacific. Salmon, a great variety of wild fowls, and sea otters are very numerous in the waters about this cape. The fur of the otter being very valuable, the aborigines and half-breeds pursue it with great eagerness. Two men row out to the places frequented by it, and when it rises to the surface it is shot by a third. Sometimes a screen is put up near such places as the otter is known to be in the habit of frequenting for the purpose of basking upon the sands or rocks. When it approaches, it is slain by the hunter who lies in concealment.

CHAPTER XVII.

HARBORS, STRAITS, AND SOUNDS OF OREGON.

TH**ERE** are few harbors in Oregon. Vessels drawing not more than eight feet water can enter the Umpqua river, in latitude $42^{\circ}, 51'$, a little north of Cape Blanco or Oxford. Port Trinidad is a cove, in latitude $41^{\circ}, 3'$, in which small vessels may find anchorage.

The mouth of the Columbia river, latitude $46^{\circ}, 18'$, could be made a very safe and commodious harbor. An appropriation ought to be made immediately, for the purpose of providing the means for facilitating the arrival and departure of vessels trading to that river. It is a subject of great importance to the people of Oregon; and the welfare of the country is intimately connected with, and essentially dependent upon it.

There can be no doubt in the minds of those personally acquainted with the geography of the country, that the people inhabiting it must be a commercial as well as an agricultural people. Preparations should therefore be made, at an early period, for shipping to enter the mouth of the Columbia. The first requisite to this end, is two experienced pilots. There is now at the mouth of this river a bold and skillful pilot, but the number of vessels entering the river being few, his compensation is too small. An appropriation of two

thousand dollars ought to be made, so as to give a salary of one thousand dollars to each of two pilots, who should receive a small additional pilotage. This would, by creating competition, cause them to be always vigilant, so as to obtain the usual compensation from the masters of vessels, in addition to their salaries.

But, that something more is necessary can not be questioned. An exhibition of facts will show conclusively that improvements are really necessary at the mouth of the Columbia, that the country may rapidly advance in commercial prosperity. This end, it is certain, can not be attained by concealing real difficulties to the entrance of that river, instead of pointing them out, and suggesting the means of surmounting them.

In 1796, Captain Gray, of the American ship *Columbia*, from Boston, entered the river, and attained to a position fifteen miles within the cape. This was the first ship known to have entered this river, which, in consequence, retained the name of the vessel. The channel was found to be "neither broad nor plain," and the captain, upon getting to sea again, seemed to feel relieved from much anxiety.

This discovery having been communicated to Captain Vancouver, he sent Lieutenant Broughton, in the *Chatham*, who, after exploring, attempted to pass out, in doing which his vessel shipped a sea.

In 1811, the *Tonquin*, owned by John Jacob Astor, arrived off the mouth of the Columbia river. Her captain sent a boat to sound out the channel. The crew perished in the breakers. Another boat was sent to rescue those in the first; but the crew of this boat likewise perished, with the exception of one man.

In 1817, Captain Biddle, of the United States sloop of war, *Ontario*, was sent to take possession of Astoria, but the sight of the breakers upon the bar caused him to regard the passage as hazardous.

In 1829, the Hudson Bay Company's brig *William and Anne*, was wrecked at the entrance, and all on board perished. In 1831, the *Isabella*, belonging to the same company, was wrecked, but the crew survived.

In 1839, Sir Edward Belcher surveyed the bar, in H. B. M. ship *Sulphur*, which grounded several times.

In July, 1841, the U. S. sloop of war, *Peacock*, was wrecked. Com. Wilkes, in his sailing directions, describes it as "exceedingly dangerous, from the force and irregularity of the tides, shifting character of the sands and great distance of any landmarks, as guides."

In September, 1846, the U. S. schooner *Shark*, was wrecked, in an attempt to pass out. Her late commander, however, says, that "the introduction of steam, and the presence of good pilots, would render the passage over the bar comparatively safe."

In addition to the usual calms, the mouth of the Columbia is subject to those caused by Cape Disappointment, and the adjacent highlands. It is also subject to currents, the direction of which varies with the tide. The difficulties attending the taking of vessels up that river, during the rainy season, are greatly increased by the winds, which then usually blow down it. These are, however, all difficulties capable of being entirely removed, by the use of appropriate and obvious means; without which, real dangers exist. Indeed, the historical facts to which I have briefly referred, are in themselves sufficient to prove that the dangers are not imaginary. But with the proper facilities, the Columbia

river is a safer and more accessible harbor than that of New York, or, with the exception, perhaps, of Newport, than any harbor on the Atlantic coast. Under all the unfavorable circumstances, so well calculated to prevent the masters of vessels from attempting to enter the river, many do arrive and depart in safety. Capt. Crosby, of the bark *Toulon*, acquainted himself with the mouth of the river, and continued to keep himself informed of the changes of the bar; and although he has been for several years passing in and out, and continues to do so, has never, it is believed, met with a single accident. At one time, he came in by the lead, without seeing land until he made Cape Disappointment, there being a dense fog at the time. At another time, he piloted the *Mariposa* in at night, and brought her safely to anchor in Baker's Bay. He has likewise taken his own vessel out, with the wind dead ahead, beating out, and getting from the bay to the open sea in four tacks.

In 1840, that is, before Com. Wilkes' explorations, Captain Couch of the brig *Maryland*, brought his vessel safely into the Columbia, and even up into the *Wilhamette*, without either chart or pilot, or the benefit of much information, that may now be attained upon the subject. He has since passed out and in several times with safety. The same may be said of Capt. Sylvester, of the *Chenancas*. The naval officers of the Hudson Bay Company, so far as I am aware, always arrive and depart without accident.

Early in the spring of 1847, Mr. Reeve, the bold and enterprising bar-pilot, at the mouth of the Columbia, brought the bark *Whiton*, Captain Roland Gelston, of New York, into Baker's Bay, with a head wind; and the

Brutus of the same port, commanded by Capt. Adams, and built for a man-of-war. The last time the Whiton sailed from that river, she passed out over an entirely new channel, recently discovered and explored by Mr. Reeve, having eighteen feet of water. The brig Henry, Captain Kilborn, is constantly engaged in the trade, and I have not heard of her ever getting aground. The bark Janet, the Columbia, the Cowlitz, the Commodore Stockton, and the Morning Star, were engaged in the summer of 1847 in the Columbia river trade. Some of them arrived and departed more than once, and all of them without accident.

It ought not to be concealed that, in the rainy season, vessels are sometimes prevented from entering the river during thirty or forty days; and that others, during the same season, are prevented during an equal length of time from departing from the river. The currents of the Columbia are strong, and the channels little known, except to those who make it their business to become acquainted with its important changes. The repugnance to entering that river, which has been felt in consequence of the loss of the Peacock, is almost invincible. The effect of all these causes, when combined, has been a very great injury to Oregon. The unfortunate loss of the Shark threw another obstacle in the way of the commercial advancement of that territory. But these vessels were not lost because there was not a channel sufficiently deep and broad for them, but because that channel was not known, and could not be supposed to be known, to the respective commanders.

Mr. James Blair, of the United States navy, in a reply to a letter from the Hon. Thomas H. Benton says:—

“In answer to your inquiries of the depth of water on the bar, I reply that the mean depth is about five fathoms; in and outside of it, six and a half fathoms: distance across it, half a mile. When the current of the river combines with the tide, the water flows out of the river five miles an hour; the current against the flood-tide nearly neutralize each other. Mean rise of the tide about six feet.

“The winds prevail from the north, northwest, and west, and moderate during the summer; during the winter, from west to southeast, and stormy. Temperature of the air, as mild as that of Europe, in the same latitudes, during the same seasons. Security from winds, as good as any harbor that I have ever seen of the same size.

“Shoal Water Bay, to the northward, is the only shelter near the Columbia river, and that only for small vessels; for the entrance to it is shoal and intricate.

“In the hands of a maritime power, with all the advantages of pilots, buoys, and steam tow-boats, it will be found one of the best harbors in the world.”

Mr. John Maginn, President of the Association of Pilots in New York, having been requested by the Hon. Thomas H. Benton, to examine Commander Wilkes' chart of the mouth of the Columbia river, and give his opinion of the merits of that harbor, as compared with that of New York, says:—

“I have made such comparison accordingly, and find that the mouth of the Columbia is the better harbor, and has manifest advantages over the harbor of New York, in all the essential points which constitute a good harbor. It has deeper water on the bar, having four

and a half fathoms, without the addition of the tide, which is there said to be eight feet, while the New York harbor has on the bar but four fathoms, without the addition of the tide, which is six feet. The bar in the Columbia is about half a mile across, while that of New York is about three-quarters of a mile. The channel on the bar, in the mouth of the Columbia, is about six thousand feet at the narrowest, and twelve thousand feet at the widest, and then shoals gradually on each side; while the channel of the bar off Sandy Hook is about six hundred feet, and shoals rapidly. The channel across the bar is straight at the Columbia; that of New York is crooked. As soon as the bar is crossed in the Columbia, two channels present themselves, one the south, or new channel, discovered by Captain Wilkes' officers, who made the soundings, entirely straight, and deep enough for ships of the line: the other, the north, or old channel, being crooked, or rather forming an elbow, and deep enough for any ships, after crossing the bar. Both these channels are from six to twelve thousand feet wide, or more, and free from shoals; while the New York channels, after crossing the bar, are narrow and crooked, and beset with shoals, which require many changes of course in the ship. In accessibility to the sea, the Columbia river is far the best, as it is immediately at the sea, and ships can get out of the sea into the harbor at once, and also get out at once into the high sea, and thus more easily elude cruisers in time of war. A great number of good and safe anchorages are found in the Columbia, as soon as the ship enters, and room enough for thousands of vessels, and deep enough for ships of-the-line.

“The winds at the mouth of the Columbia are marked *regular* and *steady*, blowing six months one way, and six months another; while the winds at New York are entirely variable, and can not be calculated upon by the mariner for any time. The mouth of the Columbia is free from ice, and also from great heat, the temperature never falling below the freezing point, nor rising above the summer warmth. The current of the river is said to be strong, but I can not see that it offers any serious obstacle. The breakers on each side of the channel are also represented to be very great; but with a channel so wide and a bar so narrow, and free from rocks and shoals, these would be nothing to experienced mariners. Taking the mouth of the Columbia, as it now is, in a state of nature, without the aid of pilots, buoys, beacons, lighthouses, and steam tow-boats, I deem it a good harbor; with the aid of these advantages, I would deem it a far better harbor than New York, and capable of containing an unlimited number of ships.”

Nothing, perhaps, has tended more to retard the growth and prosperity of the country, than the unwillingness of the whalers and merchantmen to enter the river. The people have, in consequence, been unable to dispose of the produce of their lands, while, at the same time, they have been under the necessity of paying the most exorbitant prices to merchants, who, being without competition, are charged with establishing their own prices.

But the absence of competition has not been the only element of the high prices of the merchant. The great length of the voyage to Oregon, the hazards to which they have been exposed in entering the river, and the

time which said vessels lose in proceeding to their places of destination up the river, necessarily increasing the expense, are probably also important elements of the high prices complained of.

Whatever may be the extent of the obstructions to the entrance of the mouth of the Columbia, it is at least certain that pilots, lights, buoys, and a steam tug-boat, would make it, for vessels that can pass the bar, one of the finest harbors in the world. It is conceded that nature has not done every thing which art and human industry can do to make it all that it is desirable it should be, or to make its present entrance safe and easy; yet, if the labor and expenditure of money, to which necessity excites, is recompensed by the attainment, to the fullest extent, of the object sought for, that labor and expenditure should not be withheld.

At the time I left the Columbia river, for the seat of the metropolitan government, Mr. Reeve, the skillful and enterprising pilot at that place, was exerting himself to procure, by subscription, a sum of money, that would enable him to build a small log light-house upon the high land of Cape Disappointment. But I am not yet prepared to believe that Congress will permit a handful of men, in a small, distant, and poor community in Oregon, still laboring under all the inconveniences incident to their peculiar, isolated, and neglected condition, to build light-houses for the General Government.

I would ask the attention of the reader in this place to an extract from the report of the late Lieutenant Niel M. Howison, United States navy, to the commander of the Pacific squadron, printed by order of the House of Representatives, February 29, 1848. He says:—

“The granaries are surcharged with wheat; the saw-mills are surrounded with piles of lumber, as high as themselves; the grazier sells his beef at three cents per pound to the merchant, who packs it in salt and deposits it in a warehouse, awaiting the tardy arrival of some vessel to take a portion of his stock at what price she pleases, and furnish in return a scanty supply of tea, and sugar, and indifferent clothing, also at her own rate. I feel it particularly my duty to call the attention of government to this subject. This feeble and distant portion, of itself, is vainly struggling to escape from burdens which, from the nature of things, must long continue to oppress it, unless parental assistance comes to its relief. The first measure necessary is to render the entrance and egress of vessels into the mouth of the Columbia as free from danger as possible; and the first step toward this is to employ two competent pilots, who should reside at Cape Disappointment, be furnished with two Baltimore-built pilot-boats (for mutual assistance in case of accident to either), and be paid a regular salary, besides the fees, which should be very moderate, imposed upon each entering vessel. A light-house and some beacons, with and without lights, would aid very much in giving confidence and security to vessels approaching the river; but more important than all these would, of course, be the presence, under good management, of a strong and well-built steam-tug. The effects of these facilities would be to render certain, at least during the summer months, the coming in and going out of vessels, subtract from the premium on insurance, and give confidence to the seamen, who now enter for a voyage to Oregon with dread, reluctance, and high wages. It is not for me to anticipate the

boundless spring which the vivifying influence of an extended organized commerce would give to the growth and importance of this country: its portrait has been drawn by abler hands, in books and in the Senate, but I must take leave to suggest that good policy requires the parent government to retain the affections of this hopeful offspring by attentions and fostering care: it needs help at this moment; and if it be rendered, a lasting sense of dependence and gratitude will be the consequence; but, if neglected in this its tender age, and allowed to fight its own way to independent maturity, the ties of consanguinity may be forgotten in the energy of its own unaided exertions."

It can not be doubted that something is necessary to be done, which shall make the Columbia river at all times easy of ingress and egress; it only remains to show at how very small an expense, when compared with what has been expended in harbors, or at the mouths of rivers on the Atlantic coast, this can be accomplished. Light-houses, beacons, buoys, and breakwaters, or sheltered anchorages, have uniformly received the attention of Congress, as affecting the commerce and general welfare of the country, and the revenue of the government. The revenue cutter service, designed originally for the mere protection of the revenue against smuggling, is often employed during a considerable portion of the year in the direct assistance of vessels of all classes approaching our Atlantic coast. This service has been eminently approved by the great body of the nation, because it recommends itself to the humanity of the people, and to private interest not less than to the interest of the general government. And the system of lights, beacons,

buoys, and steam-tugs, whether ordered by the general government, or the results of a sense of private interest, all tend directly to the same end, by lessening the dangers of the seas, and of the approaches to our Atlantic coast.

Although the people of Oregon have been living a long time upon the Pacific side of the coast, without the protection of the laws of their country, yet humanity is the same, or very nearly the same, there, that it is here; and men there, as here, when they are by any means enabled to discover in what their interest consists, will usually approve of whatever tends to promote it.

To make the Columbia safe at all times in entering and departing, it is only necessary to combine these safeguards in such a manner as the present improvements and experience will permit.

A revenue cutter will be needed at the mouth of the Columbia. Since steam-vessels are now coming into general use in this service, it is only necessary to combine the revenue cutter with a steam-tug, combining all the qualities required in a steam coast-guard with those of a powerful tug or tow-boat, and to keep it usually stationed in Baker's Bay, for the purpose of not only preventing smuggling, but also for towing merchant vessels and whalers in and out at that season when they are most exposed to delays and dangers. The same vessel could also take out the buoys for indicating the channel, and the lanterns for the light-houses, and the officers could be employed in superintending the erection of those houses.

The advantage resulting from affording these facilities to a country, which, in addition to its commercial

importance, must always be the great agricultural section of the Pacific coast, would be immense. It would afford the people a remedy for the evil of enormous prices, by encouraging merchantmen to come into the Columbia. It would, by encouraging industry, increase a production equal to the supply of the wants of the navy on the Pacific station. In two years from the time of placing a steam tow-boat and buoys at the mouth of the Columbia river, the beef, bread, flour, beans, etc., for the entire Pacific squadron, could be purchased in Oregon as cheap as they could be bought upon this side of the continent. This would, by creating a market, stimulate production. It would save shipment; and in addition to this, the provisions being always fresh, would not, as is frequently now done upon that coast, be condemned, and thrown overboard. A call for information from the honorable, the Secretary of the Navy, would show that immense quantities of bread are annually condemned upon the Pacific coast as spoiled.*

Immediately east of the highland of Cape Disappointment, there is a very low tract of land running across this projection into the sea, from Baker's Bay to the deep open sea immediately north of the cape. This depression is probably not more than twelve feet above the highest tide-water in the bay. It is not more than one-fourth of a mile across the peninsula. A canal cut through this place would at once overcome every obstacle which bars and shifting sands interpose to the

See my Memorial to the Thirtieth Congress, First Session, praying the establishment of a Territorial Government in Oregon, and for appropriations for various purposes, printed by the Senate. Miscellaneous Document. No. 143.

entrance and departure from that river. And this canal will certainly be commenced, whenever the attention of the American Government can be turned to see that which every scientific engineer would, if upon the ground, pronounce to be not only practicable, but pre-eminently useful.

Gray's Harbor is a shallow bay, opening to the Pacific, under the parallel of 47° , by a mouth three miles wide. It extends east, south, and north, about six miles each way, and receives the T'chehalis river at its eastern extremity. The bars of sand at the entrance obstruct the passage of vessels drawing more than ten feet of water.

Com. Wilkes, when speaking of the fogs, guides, and soundings between Cape Disappointment and Cape Flattery, says:—

“These fogs are one of the greatest annoyances to vessels arriving on this coast; for in fine weather they are experienced almost daily, coming up with the sea breeze, continuing through the night, and until the sun has sufficient power the next day to dissipate them. The only guide one has on this coast, during the fogs, is the lead; and vessels drifting into less water than fifteen fathoms, should anchor until they obtain a wind to carry them off. The soundings were somewhat peculiar; for in our progress down the coast, they increased almost regularly until ninety fathoms was reached; but a short distance beyond that depth, and at about fifteen miles from the coast, the bank suddenly fell off, and no bottom was to be obtained with a line of two hundred and two hundred and fifty fathoms long.”

The Strait of Juan de Fuca is an arm of the sea,

separating Vancouver's Island from the mainland on the south and east. It extends from the ocean eastward, about one hundred miles, between the forty-eighth and forty-ninth parallels of north latitude, and has a variable breadth, which does not exceed thirty miles. Com. Wilkes says:—

“The Straits of Juan de Fuca may be safely navigated. The wind will, for the greater part of the year, be found to blow directly through them, and generally outward. This wind is at times very violent. The shores of the straits are bold, and anchorage is to be found in but few places. We could not obtain bottom in many places with sixty fathoms of line, even within a boat's length of the shore.

“The south shore is composed of perpendicular sandy cliffs, that ran back into high and rugged peaks, and is covered with a forest of various species of pines, that rise almost to the highest points of the ranges of the mountains. The highest points themselves are covered with snow; and among them Mount Olympus* was conspicuous, rising to an altitude of 8138 feet.

“The north shore is rocky, and is composed, as far as we could examine it, of conglomerate, and in some places of reddish granite.”

On the south side of the strait, and some distance east of Cape Flattery, is a low sand-point, called by Vancouver New Dungeness. Within this there is a pleasant and safe harbor, bearing the name of the point. The land near the shore yields an abundance of very nutritious grass, but it is without trees, and is

* Mount Van Buren. I insist upon these snow-peaks bearing the names of our Presidents.—AUTHOR.

low, while in the background are high mountains which are always covered with snow.

There are many beautiful plains likewise in the country surrounding this harbor, which are well adapted to agricultural purposes, and which have all the appearance of having been cleared by the husbandman.

Further along the shore, and somewhat south of east, is Port Discovery, having its opening completely sheltered on the north by a most beautiful, fertile, and highly picturesque island, known as Protection Island, for a reason which has already suggested itself to the reader. It is eight miles long, and has an average width of two miles. Its points terminate in low, sandy projections, that interlock each other. The water abounds in fish; and a great variety and number of wild fowl are found near its shores. The harbor is indeed beautiful; but its high precipitous banks, and the great depth of water, which in many places is sixteen fathoms within a boat's length of the shore, while in the middle it is nowhere less than forty fathoms, may greatly retard the growth of a settlement in its vicinity.

The soil is generally a thin, black, vegetable mold, with a substratum of sand and gravel. Around this harbor are immense and almost impenetrable forests of pine, fir, and two species of spruce, one of which grows to a great height. It puts out only a few branches, and those small and lateral. In many respects it resembles the hemlock spruce of the States. A variety of maple, too small for much practical use, and known among the savages by a name which, when translated into our language, is "devil-wood," grows upon the open grounds. Poplar and oak like-

wise grow upon the open grounds. A variety of the ash, smaller in size than the ash of the States, but more tough, and possessing a closer fiber, is found on low grounds along the streams. A great number and variety of berries grow upon the low and sandy lands.

In the month of May the flora, consisting for the most part of *Claytonia*, *Viola*, *Stellaria*, *Dodecatheon*, *Trifolium*, *Collinsia*, *Leptosiphon*, and *Scilla*, growing upon a soil of loam slightly colored by the oxyd of iron, please the eye by their variety, beauty, and profusion. Great numbers of deer are said to be found here at certain seasons.

The sheet of water known as the Strait of Juan de Fuca, which, after continuing northeast, is known as the Gulf of Georgia, is between Vancouver's Island and the mainland.

From the eastern extremity of the strait, a great bay extends southward more than one hundred miles toward the Columbia. This beautiful body of water is divided into three parts:—Hood's Canal on the west, Admiralty Inlet on the east, and Puget Sound on the south. Com. Wilkes says:—

“Nothing can exceed the beauty of these waters, and their safety; not a shoal exists within the Strait of Juan de Fuca, Admiralty Inlet, Puget Sound, or Hood's Canal, that can in any way interrupt their navigation by a seventy-four gun ship. I venture nothing in saying, there is nothing in the world that possesses waters equal to these.” Again he says, “The shores of all these inlets and bays are remarkably bold; so much so, that in many places a ship's side would strike the shore before the keel would touch the ground.”

The scenery about the narrows leading from Admiralty Inlet into Puget Sound, is described as being "very fine : on all sides are high projecting bluffs of sandstone, rising almost perpendicularly from the water, with a great variety of shrubs along the base. The tide, which runs through the narrows with great velocity, causes many eddies and whirlpools, through which a ship is carried with extraordinary rapidity, while the danger seems to be imminent. The Porpoise succeeded in entering the narrows first, and in a few minutes was lost sight of ; the Vincennes entered, and seemed at first to be hurrying to destruction, with her sails quite aback. We were carried onward wholly by the force of the tide, and had backed and filled only once before we found ourselves in as spacious a sound as the one we had just left. The narrow pass seems as if intended by its natural facilities to afford easy means for its perfect defense."

Vancouver, who made an accurate survey of these waters, speaks of them and of the surrounding country in terms of great admiration. He describes the country in the vicinity as being generally undulating, and presenting a succession of beautiful meadows, verdant lawns, and wooded hills. He says that "the soil principally consisted of a rich, black vegetable mold, lying on a sandy or clayey substratum ; the grass, of excellent quality, grew to the height of three feet, and the ferns, which in the sandy soils occupied the clear spots, were nearly thrice as high." Again, he says, "To describe the beauties of this region, will, on some future occasion, be a very grateful task to the pen of a skillful panegyrist."

Port Townsend is not far south of Point Wilson (of

Vancouver), which forms one side of the entrance into Admiralty Inlet. It is a beautiful sheet of water, about three-fourths of a mile wide, and three and one-fourth long. Immediately in the rear of it, there is an extensive table-land, consisting of a light but very productive sandy loam, covered with wild flowers, strawberry plants, and an abundance of excellent grass, but destitute of timber. From this point, the fine conical peak of Mount Polk is distinctly seen to the northeast, presenting a sublime and beautiful sight, when illuminated by the setting sun. The bay affords excellent anchorage in ten fathoms; and is well protected from the prevailing winds. An abundance of excellent fresh water is had upon the mainland around it.

Eight miles further up, and near the entrance of Hood's Canal, is Port Lawrence. From this port, both Admiralty Inlet and Hood's Canal, may be seen. It abounds in fish, geese, and ducks. A great number of deer are found in the vicinity.

Pilot's Cove is a small opening on the mainland, on the west side of the inlet, opposite to the south end of Whidby's Island.

Apple-tree Cove, so called from the numbers of that tree growing upon its shores some miles further south, is a small opening in the mainland, and answers well the purposes of a temporary anchorage.

Port Madison is an excellent harbor, still further south; and is in every way easy of access, safe and convenient for shipping. "The scenery of this portion of Admiralty Inlet," says Com. Wilkes, "resembles strongly parts of the Hudson river, particularly those about Poughkeepsie, and above that place. The distant high land, though much more lofty, reminded us

of the Kaatskills. There were but few lodges of Indians seen on our way up; and the whole line of the shore has the appearance of never having been disturbed by man."

Port Orchard is also a harbor along the eastern shore of Admiralty Inlet. It is one of the most beautiful of the great number of fine harbors on these inland waters. It consists of two inner harbors, and an outer one. The entrance to the former is by a strait not more than two hundred yards wide. A beautiful sheet of water then opens out, six miles in width and fifteen in length. It has a bold shore, good anchorage, and depth of water sufficient for the largest class of vessels. Port Orchard is well protected from the winds, and the only danger in entering it is a reef of rocks, which is nearly in the middle of the passage. The soil is very fertile, and is capable of yielding in great abundance any productions suited to the climate. Fine forests, with here and there a small but beautiful and fertile prairie, covered with fine green grass, honeysuckles, and roses, give to the surrounding country a highly interesting and picturesque appearance. Game is very abundant, and the forests sometimes appear to be almost alive with squirrels. This port communicates on the north with Port Madison, by a passage having a depth of four and a half fathoms at low tide.

Penn's Cove is situated between Whidby's Island and the mainland. The soil of the country east of the cove, is very fertile. In the vicinity, is a mineral spring which forms a deposition on any thing over which its waters flow.

At the bottom of Admiralty Inlet is Commencement Bay, affording a good anchorage, and having in its

vicinity an abundant supply of wood and water. The Puyallup is a small river, which it receives at its head, and which forms a delta, but none of the branches into which it is divided are large enough for ships' boats. Above the point at which it branches, it is about seventy feet wide; and along it there is a fine meadow of some extent, with clumps of alder and willow. The soil along the stream is of a black turfy nature. The hillsides are covered with a dense growth of gaultheria, hazel, spirae, vaccinium, and cornus.

Puget Sound is the southern division of the great bay that, opening from the eastern end of the Strait of Juan de Fuca, extends south. All its numerous branches afford safe navigation for the largest vessels of war. The land in most places around the sound is low, and covered with pine, spruce, oak, arbutus, and alders. *Seringia* bushes grow here to the height of from twelve to fifteen feet. In the spring, a great number and variety of flowers grow here. The soil is good in some places, but in many others it consists of a thin vegetable mold, mixed with sand, resting upon a substratum of fine gravel. It is evident, therefore, that it is not of a nature to resist the effects of long continued dry weather. At the head of nearly all the branches there are extensive mud-flats, and some patches of salt meadow.

Vast shoals of young herring frequent these waters in the season of the salmon fishery, and are used by the Indians as bait for the latter fish. A species of rock cod is also very numerous, and of a large size, some of them weighing fifty pounds. Flounders are likewise very abundant. Great numbers of shell-fish, especially of clams, are found here.

Port Nisqually is near the southern end of Puget Sound. Com. Wilkes says, "The anchorage off Nisqually is very contracted, in consequence of the rapid shelving of the bank, that soon drops off into deep water. The shore rises abruptly, to a height of about two hundred feet, and on the top of the ascent is an extended plain, covered with pine, oak, and ash trees, scattered here and there, so as to form a park-like scene." "It would," he affirms, "be much exposed to the southwest winds, and the hill is an insuperable objection to its becoming a place of deposit for merchandize, as it would very much increase the labor and expense of transportation.

"The spring tides were found to be eighteen feet; those of the neaps twelve. High water at the full and change, at 6h., 10m., P.M."

The following remarks on Hood's Canal, are a simple abridgement of the information upon this subject furnished by Com. Wilkes:—

Its banks, as far as Tskutska Point, do not exceed one hundred feet in height, and are formed of stratified clay, with a light gravelly soil above it, thickly covered with different species of pines. This is also the character of the eastern shore, for the whole extent of the canal; but the west and north shores above this point, become more bold and rocky, with a deeper and richer soil, formed by alluvial deposits.

At Tskutska Point, the canal divides into two branches; one taking a northern direction, while the other pursues its way to the southwest. The canal does not terminate where the examination of Vancouver ended; but, taking a short turn to the northward and eastward for ten miles, it approaches the waters of

Puget Sound, within a distance of two and a half miles. The intervening country is rough and hilly.

At the southern extremity of Hood's Canal, there is a large inlet, called Black Creek, by which the Indians communicate with the T'chehalis and Columbia rivers. This creek is wide, and has an extensive mud-flat at its mouth. This is the case with all the creeks that empty into these waters. Before reaching this point, the rocky shore of the west side, near Mount Van Buren, gradually slopes into low land, with a thickly wooded and good soil.

The water in the center of the canal is too deep for anchorage; but there are several good harbors. There is plenty of water in the small harbors; some of them have enough running into them to turn mills. There is no very great extent of country for cultivation.

Although in securing the noble Bay of San Francisco, in Upper California, the United States have made a great acquisition, yet there are many reasons which produce the conviction upon my mind, that the harbors which open from Admiralty Inlet, Puget Sound, and Hood's Canal, will ultimately send out upon the ocean, not only a greater number of able and skillful seamen than the Bay of San Francisco, but more than any other portion of equal extent in the world. Among the reasons which may be assigned for this opinion, is the inexhaustible supply of good timber along the shores of this great bay, and the unlimited amount of motive power, as compared with the almost if not quite total absence of both about the Bay of San Francisco. I may also mention the fact of the vastly superior productive powers of Oregon, as an agricultural country, capable as it is of furnishing supplies to an indefinite

extent, to a commercial and naval marine. And when I affirm that Oregon is greatly superior to Upper California, as an agricultural country, I do it in view of the fact, that certain tracts, limited to a very few acres, peculiarly situated, are reported to have produced more wheat per acre than any man of veracity will affirm was ever grown in Oregon. But granting the truth of the statement, yet, besides the fact that it is mentioned as an extraordinary instance, it is certain, both from my own observations in California, and from conversations which I had when there, with persons long resident in the country, that it is a grazing rather than an agricultural country.

But my purpose, at present, is only to call attention to the superiority of the harbors of Admiralty Inlet, Puget Sound, and Hood's Canal, over the Bay of San Francisco. And I feel myself the more constrained to do this from my personal knowledge of the fact, that many officers of the United States navy, who have been employed upon the coast of California during the war with Mexico, have purchased town property about the bay, and many of them large tracts of land. It is evident, therefore, that these gentlemen, under the influence of a very natural desire to enhance the value of their property, may insensibly be led to overrate the advantages of the Bay of San Francisco, which they have seen, and to underrate those of Admiralty Inlet, which they have not seen.

The testimony of Com. Wilkes, who conducted the operations of the Exploring Expedition, is valuable, as coming from a gentleman charged by the General Government with the duty of making a careful examination of the coast. He says:—

“No part of the world affords finer inland sounds, or a greater number of harbors, than are found within the Straits of Juan de Fuca, capable of receiving the largest class of vessels, and without a danger in them which is not visible. From the rise and fall of the tides (eighteen feet), every facility is afforded for the erection of works for a great maritime nation. The country also affords as many sites for water-power, as any other.”

Such testimony, aside from its official character, as coming from one who has examined the Bay of San Francisco, and the harbors within the Straits of Juan de Fuca, without having acquired a personal interest in either, by the purchase of town lots and large tracts of land, is certainly entitled to more consideration than the opinions of those who have acquired such an interest in the vicinity of San Francisco, and who, in addition to this, have never seen the harbors within the Straits of Juan de Fuca. That a naval station should be established at Puget Sound, or at some of the harbors in that vicinity, will not be doubted by any scientific naval officer, who makes a personal examination.

CHAPTER XVIII.

POPULATION—COUNTIES—TOWNS—MILLS.

THE total white population of Oregon is about 12,000, consisting for the most part of farmers, the number of mechanics being very small as compared with the whole number. The great mass of the people are distinguished for their industry, temperance, and public and private virtue; and are as intelligent as any equal number of people I have known, engaged in similar pursuits. For civil and municipal purposes, the inhabited parts of Oregon are divided into ten counties:—Lewis and Vancouver counties are on the north side of the Columbia; Clatsop, Twalatin, Yamhill, Polk and Benton, are south of the Columbia river, and west of the Wilhamette. Clackamus, Champoeg, and Linn, are south of the Columbia, and east of the Wilhamette. Towns have been laid off in several places in the territory.

I will introduce two extracts from Com. Wilkes' Narrative of the Exploring Expedition which will afford a better picture of Astoria than any I can sketch:—

“In the morning we had a fine view of the somewhat famous Astoria, which is any thing but what I should wish to describe. Half a dozen log-houses, with as many sheds, and a pig-sty or two, are all that

it can boast of, and even these appear to be going rapidly to decay.

“The Company pay little regard to it, and the idea of holding or improving it as a post has long since been given up. The head-quarters of their operations have been removed to Vancouver, eighty miles farther up the river, since which Astoria has merely been held for the convenience of their vessels. It boasts of but one field, and that was in potatoes, which I can, however, vouch for as being fine. In former times it had its gardens, forts, and banqueting-halls; and from all accounts, when it was the head-quarters of the Northwest Company, during their rivalry with the Hudson Bay Company, there was as jovial a set residing here as ever were met together. I have had the pleasure of meeting with several of the survivors, who have related their banquetings, etc.

“In point of beauty of situation, few places will vie with Astoria. It is situated on the south side of the Columbia river, eleven miles from Cape Disappointment—as the crow flies. From Astoria there is a fine view of the high promontory of Cape Disappointment, and the ocean bounding it on the west; the Chinook Hills and Point Ellice, with its rugged peak, on the north; Tongue Point and Katatamet Range on the east; and a high back-ground, bristling with lofty pines, to the south. The ground rises from the river gradually to the top of a ridge five hundred feet in elevation. This was originally covered with a thick forest of pines; that part reclaimed by the first occupants is again growing up in brushwood. From all parts of the ground the broad surface of the river is in view.”

Astoria has not materially changed since Com. Wilkes saw it.

Plymouth is situated on the left bank of the Columbia, at the junction of the lower branch of the Wilhamette with that stream. It has a fine natural wharf, and when the country becomes well inhabited there will probably be a large town at the place.

Portland is a small and beautiful village on the left bank of the Wilhamette, eight miles from the mouth. It contains about one hundred inhabitants, and has an air of neatness, thrift, and industry. Ships come up to the place.

Multnomah and the Robin's Nest have already been sufficiently described in my notice of the Wilhamette river and valley.

Oregon City is situated upon a plateau on the right bank of the Wilhamette, immediately below the Falls. It contains about six or seven hundred inhabitants. It has two neat and commodious places of public worship—a Methodist and a Roman Catholic. I there had the honor of being the superintendent of a Sabbath-school, which I left in charge of a better man when I sailed. There is one day-school, and one female boarding-school, in which are taught all the branches usually comprised in a thorough English education, together with plain and ornamental needle-work, drawing, and painting in mezzotinto and in water-colors. There are two large and valuable flour-mills; two good saw-mills, running three saws; five small stores; three public-houses for boarders and travelers; a printing-press, from which issues the Oregon Spectator semi-monthly; a public library, containing three hundred well-selected volumes.

Salem is a small village situated in Champoeg county, on the right bank of the Wilhamette river; having around it a country of extraordinary fertility. It is the most beautiful town site I have ever seen.

There are, I believe, eight flour-mills, and fifteen saw-mills in the territory.

CHAPTER XIX.

GEOLOGY AND MINERALOGY OF OREGON.

THE Rocky Mountains are characterized by granite and other primary rocks, extending to an unknown distance north and south. Secondary rocks are found at their western base. These, as the traveler proceeds westward, are observed to be tilted up into dyke-like ridges, with strata at different angles; many of them being cracked by an upheaving force, into fissures, now filled with earth. Many ridges are found in a wedge form, between other rocks, and variously dislocated.

The disturbed state of these secondary rocks, evincing the traces of igneous action, become more and more evident, until volcanic products are seen on every side. Mountains of amygdaloid, volcanic conglomerate, columnar basalt, detritus, disintegrated lava, obsidian, clinkstone, pitch-stone, and pumice-stone, abound. The volcanic agency which is manifested by these products (some of them occurring in one portion of the country, and some in another, but, of course, all in no one district at the same time) continues to be seen across the whole country, south of the forty-eighth parallel of north latitude, until the traveler arrives where the Pacific Ocean washes the western side of the continent. Primary rocks are, indeed, found at various localities

in the intermediate country, which is, perhaps, the most extensive volcanic region in the world. But the rocks thus found are exceptions to the general character with which that portion of the continent has been marked by internal fires. The granite and carbonate of lime which, as will hereafter be seen, is found near the Spokane river, are examples of these exceptions. So also are the Salmon River mountains. Other exceptions might be mentioned, but all of them are only islands in a vast sea of fire.

Upon arriving at the extreme western side of the continent, the traces of igneous action are less marked, and the geology of the country becomes slightly modified. The extent of the change, however, will be more perfectly seen when I shall have brought together such isolated facts as have fallen under my own observation, together with such as I have been able to collect from the journals of travelers and explorers who have preceded me in the country.

The one shore of the Strait of Juan de Fuca exhibits rugged, sandy cliffs, that run back into high and broken peaks.

The other shore of the same strait is composed, for the most part, of conglomerate, and in some few places, of a reddish granite.

The vicinity of the pass from Admiralty Inlet into Puget Sound, is marked on all sides by high projecting bluffs of sandstone, rising almost perpendicularly from the water.

In that part of my journal which contains an account of my journey from Ogden's river to Black Rock is a description of a desert upon which I entered on the evening of the second day after leaving Ogden's

river, and over which I passed during the night preceding the morning upon which I arrived at the Black Rock.

This is not the only example upon the western side of the continent, of volcanic agency making fissures through which gaseous products have escaped, without forming a crater, and without ejecting any solid igneous matter. The Bute prairie, between Nisqually and T'chehalis river, is a locality furnishing examples of this sort. When I first turned my attention to the mounds of this prairie, I was inclined to believe that they had been formed by scraping the surface-earth together in a heap, and that they were the places of the sepulture of extinct tribes. The regularity of their construction, and the fact that they appeared in some places to be grouped together in fives rendered this probable to my mind. But subsequent reflection upon several additional facts, and the consideration of their great numbers, and the space over which they are scattered, has convinced me that I was mistaken.

An elevated sandy plain near the Spokane river, having yellow pines at considerable intervals growing upon it, is covered by hundreds of regular cones made up of small angular fragments of granite blackened by smoke, and varying from ten feet in diameter, and six in height, to one hundred and twenty in diameter at their base, and eighty feet high. Granite *in situ* occurs in the immediate vicinity of these cones.

At two or three places on the Applegate cut-off between the Black Rock and the Elk Mountains, I observed immense quantities of rock broken into cubical and angular fragments, which were probably reduced to this form by the escape of gas or steam.

I have already expressed the opinion that the fissures which I observed in the rocks about the Soda Springs were made in this manner.

Near the mouth of the Columbia, and in the middle of the river a very remarkable instance occurs of that form of basalt called needle-pointed.

On the south shore of the Columbia, and a few miles from the mouth, bivalve shells measuring longitudinally four and a half inches from the hinge, and five inches transversely, have been found embedded in calcareous sandstone of the tertiary formation.

Chalcedony, agate, jasper, cornelian, and most of the varieties of the precious stones, various in form, size, and color, but many of them pure, beautiful, and susceptible of a great brilliancy, are found along the shores of the Columbia, in many places between its mouth and its sources.

At Coffin Rock the shores are composed of trap and conglomerate; and at Oak Point the trap rises to a height of eight hundred feet. As the Wilhamette is approached, the shores of the Columbia continue to exhibit precipitous trap rock.

Passing up the Wilhamette, the river is confined in many places between high and perpendicular walls of basalt. Upon arriving at the Falls, the rocks change their character within a few miles, and volcanic scoria, vesicular lava, pudding-stone, intermingled with blocks of trap, and many crystals of quartz occur.

Below Oregon City, and on the left side of the Clackamus river, about one mile above its mouth, there is an immense bluff of yellow friable sandstone. In the immediate vicinity I observed basalt, and a little more remote, scoriated basalt. On the eastern side of

the Wilhamette, about ten miles from it, and about twenty-five miles above Oregon City, I found impure dark limestone, lying in thin sheets, and filled with a multitude of small bivalve fossil shells. In the immediate vicinity basalt occurred, and a little more remote, scoriated basalt. On the same side of the river and about thirty miles above this locality, gray granite *in situ* occurs. Basalt is found near it.

On the western side of the river, about ten miles below the La Creole, the prevailing rock is trap. This rock also occurs in many places on the eastern side. Proceeding still higher up the valley, the rocks change from basalt to a whitish clayey sandstone, the soil at the same place varying from a black, or light brown, or red, to a grayish brown.

I have seen a specimen of sienite from the Elk Mountains, where it is said to be found in immense quantities at a place where a branch of the Wilhamette comes out from the mountain.

Returning to the Columbia, and proceeding up to where the river breaks through the Presidents' Range of mountains, the geological characteristics are basaltic lava, basaltic conglomerate, and sandstone. I have many fine specimens of petrified wood, some of which are in part lignite, taken from the vicinity of the Cascades.

Several miles below the Cascades is a mural escarpment of singular beauty. Regular pentagonal columns wall up the northern side of the river for half a mile. Needle-pointed basalt, which is not an unfrequent form west of the Rocky Mountains, likewise occurs in this locality. Here are volcanic peaks from one thousand to one thousand five hundred feet high, some of them

being conical, some denticulated, while others are needle-pointed. On a narrow strip of bottom-land at the lower part of the rapids below the Cascades, is a remarkable basalt needle five hundred feet high, comparatively smooth, and standing wholly isolated, like some vast monument of centuries long gone by. It was probably ejected by volcanic fires through soft rock or soil which has subsequently been removed.

The country about the Dalles is decidedly volcanic. Mount Washington is said by persons who have lived long in the country, to have been in a state of eruption within a few years.

The Grand Rapid Hills are composed of basalt, old lava, and scoria. Eighteen miles below the Wallawalla, around the Windmill Rock, are a number of curious basaltic peaks. On approaching Wallawalla, the country is broken into elevations forming many curious and fantastic shapes of remarkable figures and colossal heads.

The various escarpments that have been examined in the Blue Mountains, exhibit compact amorphous trap, leading to the conclusion that this constitutes the mass of this range.

The Grand Coulée is a very remarkable geological phenomenon, about which there is some difference of opinion, many believing that it was the former channel of the Columbia, while others doubt it. The walls consist of basaltic cliffs, not unlike the Palisades of the Hudson, in many places eight hundred feet high. In some other places the volcanic rocks which line the side are no more than three hundred feet perpendicular. A peculiarity at one of these places is a stratum of earth ten feet thick, superimposed upon

a stratum of basalt, and beneath superincumbent basalt.

The Coulée is from one to three miles wide, and about one hundred miles long. In several places the cliffs are broken into openings which show channels having perpendicular walls, and in no respect different from the Grand Coulée, except that they are neither so wide nor so long. In the northern portion of it are several granite knolls which rise in perpendicular masses seven hundred and fourteen feet above the level of the plain in which they are situated, and which constitutes the bottom of the Coulée. These knolls are called *Isles des Pierres*. There is a small and beautiful lake on the top of the west border. Another is found some miles below. A third, about three hundred feet wide, and half a mile long, is situated still lower down between two of these granite islands. They all contain fresh water, and are without an outlet.

The proof that the Grand Coulée was at one time the channel of the Columbia, is found in the fact that there are a great many stones lying at the south end which, by their worn appearance, indicate that they have been brought down by a very rapid current. In addition to this there are large boulders of granite at the south end, while there is no rock of a similar kind except at the north end. Another circumstance which confirms this theory, is that the Coulée extends from one point of the river to another. It should be remarked, however, as the only fact calculated to render this theory doubtful, that those who have traveled through the whole length of the Coulée affirm that it everywhere presents the same deep trench-like appearance;

while it is known that the whole distance of the river from the north end of the Coulée around to its southern extremity is not characterized by a deep channel cut through the rocks.

About fifteen miles below the junction of the Spokane with the Columbia, upon a piece of land near the latter, a very interesting geological phenomenon is presented in the fact of large boulders of granite being in their natural position, while in the immediate vicinity is an immense dyke of basalt rising two hundred feet, presenting conclusive evidences of having been heaved up by successive volcanic throes of the earth.

Proceeding higher up the Columbia, castellated rocks of soft yellow sandstone are seen on the west side of that river, about one mile distant from it, and three miles below the Pischous river. The Columbia at this place is confined within a ravine of from 1000 to 1500 feet below the general level of the country. There is no verdure upon its borders, and the sterile sands extend to its very brink.

The path leading from Pischous river to Fort Okonagan is very rough, conducting over jagged rocks, which approach within a few feet of the edge of the water; in places, so near as to leave but a narrow ledge for the path. These rocks are granite, with veins of white marble, some of which are several feet in width. Much of the rock in this vicinity resembles slate, is capable of being split into slabs, and is of a dark gray color.

A short distance below the junction of the Spokane, and upon the side of the river on which that stream flows into the Columbia, there is a mountain of rich and very beautiful saccharine marble, some sections of

which are pure white, while others are beautifully clouded with blue and brown.

The finest specimens of columnar basalt are found in a remarkable excavation or subsidence of the earth, near the summit level which separates the waters of the Spokane from those of Lewis river. The opening contains forty or fifty acres of land, walled in by crystalized columns of regular pentagons, of about twelve feet diameter, and having sections varying in length. These columns rise no higher than the surface of the earth, which thence gradually slopes back into hills. This singular opening was probably caused by a sinking of the earth, which then left these gigantic and dark crystals exposed.

Ten miles below Fort Colville, a species of white chalk or pigment is found, which is used at the fort for common lime whitewash, from which it is with difficulty distinguished.

The water of the Columbia at the Kettle Falls precipitates itself over a tabular bed of quartz, which crosses the river at that place, and which, being harder than the rocks either above or below, is less abraded.

Immediately below the junction of the Kooskookee with Lewis river, is a fine example of columnar basalt. This mural escarpment is similar to many others which occur along the bluffs and banks of rivers in Oregon, in which are often found from ten to twenty strata of basalt, amygdaloid, and brecciated layers in alternating strata, rising from fifty to several hundred feet. At this place several distinctly-marked strata occur. The uppermost consists of two parts—the one being semi-crystalized basalt, resembling the crystals found in Mount Holyoke and the Palisades on the Hudson—the

other, situated at the side of this, and upon the same plane, consists of that form of basalt known by the characteristic name of needle-pointed. Immediately underlying this is a brecciated layer. Below this, a stratum in two parts, on the same plane, the first consisting of basaltic columns of regular crystalized pentagons, and the second of amygdaloid, in connection with basalt. Below this occurs another brecciated stratum. Next in order are basaltic pentagonal columns, varying from two to five feet in diameter, being closely jointed at irregular intervals. Underlying this is a stratum of conglomerate, only a few feet thick, composed of angular fragments. The last consists of irregular massive amygdaloid.

Col. J. C. Fremont obtained rock-salt southeast from the Salt Lake, in a mountain denominated on Humboldt's map of New Spain, as *Monte de Sal Gemme*—Rock Salt Mountain. He describes it as being very pure and white, and containing less of the water of crystalization than common salt.

This mineral is also found in a section of the mountain on the south side of Salmon River Mountains. Rev. Samuel Parker, who discovered it, says :—“The geological formation, in the immediate vicinity, so nearly resembles those described in the neighborhood of the mineral salt mines of Poland, as to induce the belief that it exists in great abundance.”

The geology of this locality can be better seen by introducing, in this place, the following extract from his journal, as he proceeded westward from the Rocky Mountains :—

“The geological character of the tract over which we rode for two days, corresponds with that of the

new red sandstone of the valley of the Connecticut. There are deposits both of the red and slaty colored strata—and their depth seems to be quite great, as is evinced by bluffs. But, as I observed no organic remains, my inclination to believe that these rocks are the new red sandstone, is founded only on their mineral character, and the fact, a very important one, that they appear directly to underlie the saliferous rocks, or to lie immediately above them. Should these rocks, which are quite extensive, prove to be new red sandstone, it adds no little interest to the geology of a country so rich in other respects. Perhaps, as red rocks of the same kind lie on each side of the Rocky Mountains, it may be proved hereafter, that the range was elevated through a deposit of shale or new red sandstone.

“Directly after leaving the red sandstone, and passing a belt of volcanic formations, which also are found among the red and slaty rocks just described, saliferous rocks, are seen. Here is native salt, chloride of sodium, and red, green, brown, and white strata of indurated marl, agreeing in character with the geological features of the Bochina and Wieliczka mines of Poland. These rocks also occupy quite a tract of country, as we were several days in passing them, and they seemed to reach both north and south of the locality of rock salt, as is proved by the existence of the great Salt Lake at the south; and travelers assert that native rock salt is found to the north, and especially far to the south, near the Rocky Mountain range.”

The Salmon River Mountains are immense masses of granite and mica slate, situated in a great volcanic field, the tremendous fires of which have perforated

their tops so as to form rents, through which the lava has flowed, and from which stones have been ejected. In tracing here the passage of granite into basalt, multiplied fractures are observed to increase until the granite is found at first broken into large fragments, which diminish in size until they disappear in the distinct characteristics of volcanic agency, in which it is changed into a substance, which is said to resemble trachyte.

The rocks of the mountains along the Burnt river and near it, appear in several places that have been examined, to have been originally a slaty sedimentary limestone, though now in a metamorphic state. Along the Burnt river valley, the strata that occur are sedimentary rocks, disturbed by the intrusion of volcanic products.

In a district of country commencing about 150 miles from the point at which I left Ogden's river, when on my journey across the continent, I saw many varieties of obsidian and pumice-stone. I found at one locality several specimens of the latter in connection with the former; the obsidian in these specimens being of a greenish black, and disposed in thin plates that alternated with the pumice-stone, which, however, while it adhered to the surface of the plates of obsidian, did not appear to penetrate them.

For several days after passing over this particular locality, I saw obsidian occurring in splinters, some of which were nearly transparent, and of a bluish or gray color, having a pearly luster, and being probably that variety known as pearl-stone. The most of them, however, appeared in neither color nor fracture different from pieces of junk-bottles, being of a black

color, and opaque, except in their splinters, which looked like smoked glass, when held between the eye and the sun. These splinters the savages work into the most beautiful and deadly points, with which they arm the end of their arrows. At length the splinters disappeared, and I saw obsidian for some time in the form of small globes, about one and a half inches in diameter. These enlarged as I advanced, and at length I saw many about ten inches in diameter.

In the same region I saw great quantities of pumice-stone, having no connection with the obsidian, beyond that of being found in the same locality. The fibers of the pumice-stone were seldom parallel to each other, but irregular and asbesdoidal. Its colors were various, embracing gray, white, reddish-brown, and black.

Volcanic mounds, cracked at the top, and surrounded by fissures, are numerous in all the country between the Presidents' Range on the west, and the Rocky Mountains on the east. I passed over extensive districts between these two chains, in which the soil (if it can be so denominated) in taste, smell, and color, resembled ashes that had been partially leached. In one instance my wagon was slatted upon one of the ash-hills in this district. After traveling several miles we arrived at the bed of a creek, where we found lye standing in pools, possessing such strength that the cattle, though suffering for water, could not drink it.

The surface of the ground in this intermediate district, was often found encrusted with a white substance, of a saline character, principally muriate of soda, but more frequently being either a carbonate or bi-carbon-

ate of potash, or some other salts of bitter taste, and cathartic properties.

Thermal springs abound in all the country situated between these two ranges of mountains. Many of them form large mounds by the deposition of their waters. The contents of these sometimes consist of a pure white, earthy substance; and at others of a substance which, in drying, becomes pulverant. Of this character are one or two springs upon the plain in which the Great Hot Spring rises, about seventy miles from Ogden's river, and on the Applegate cut-off. Of the same character are many of the soda springs, which, although not thermal springs, are characterized by the deposition spoken of. Of the same character is the Steamboat Spring, and the spring at our encampment of August 2.

These springs vary in temperature from blood-heat to almost the boiling point.

The Great Hot Spring, and those in its vicinity, I regard as being more interesting than the celebrated hot spring of Ursprung, upon the frontier of Germany; the hot spring of Tiberias, one mile south of the ancient city of Tiberias; or the hot springs of Virginia; or, indeed, any thermal springs in the world.

I have already said that the forty-eighth parallel of north latitude is, in Oregon, the northern limit of lava or trap, and that beyond that line this rock gives place to granite. Com. Wilkes affirmed this several years ago, after portions of the country on both sides of that line, between the Straits of Juan de Fuca and the Presbyterian mission station of Chimikane, had been partially explored by gentlemen connected with his command. It is probable that the same line to the

Rocky Mountains separates the country geologically. It is certain that the country lying south of the Spokane river shows traces of igneous action, and furnishes fine examples of flinty trap.

No regular geological survey of the county having yet been made, nothing, of course, is known upon the subject of the extent of its mineral resources beyond a few casual, isolated, accidental observations. Minerals are usually found in mountainous portions of the country; but those in Oregon have been extensively traversed by trappers and hunters only, who were incapable of making any examinations of the mineral resources of the countries over which they wandered. It is believed, however, that as the country becomes inhabited by a civilized people, and scientific surveys are made, many valuable minerals will be discovered. Many persons, judging from the volcanic character of the country, believe that when metals shall be found, they will not be in their oxyds, but reduced, by intense volcanic heat, to a massive state. But some of the facts already stated, do not warrant this conclusion. I found at one place in the Wilhamette valley impure dark limestone, lying in thin sheets upon each other, and filled with a multitude of fossil shells. In the immediate neighborhood basaltic rocks occurred, and a little more remote, scoriated basalt. At another locality I partially examined an immense bluff of coarse friable yellow sandstone. In the immediate vicinity was basalt, and a little more remote, scoriated basalt. In the vicinity of Astoria a species of limestone is found in nodules, which, when burned and slacked, presents various colors, including orange, slate, yellow, light red, and blue. Near the place is

basalt. At another locality up the Wilhamette river, gray granite *in situ*, and basalt are found near each other. The soil, in many parts of the country, is colored by the oxyd of iron, if it be not, indeed, as it possibly may be, red decomposed basalt. I have, at least, often found in this red soil, a species of iron ore, known as shot ore.

It has long been known that lignite occurs in a somewhat extensive locality upon the Cowlitz river.* Red and yellow ocher and plumbago are brought down the Columbia by the Indians. Lead is reported to have been found in small quantities among the Blue Mountains. The late Dr. Marcus Whitman informed me that a remarkably fine and beautiful species of gypsum may be obtained in inexhaustible quantities on John Day's river, not far from the road from the Dalles to Wallawalla. He stated that it was also found on Thompson's river. He stated, likewise, that the Indians not unfrequently brought copper from a place north of his station; and that, judging from the information which he obtained from the savages, its locality was somewhere south of the forty-ninth parallel. Mr. Ricord, the late attorney-general of the Hawaiian Islands, brought to Oregon a specimen of platina, obtained from a Flathead Indian, which metal, the savage affirmed, was very abundant at one locality in the country of his nation, but he refused to indicate it more particularly. A Mr. Lattee, who was, during

* I received, during my residence in Washington City, a letter from Oregon, informing me that an extensive field of bituminous coal, of an excellent quality, and lead ore, had been discovered near the Cowlitz river, soon after my departure from that country.

many years, in the service of the Hudson Bay Company, informed me, that the Indians often brought platina and silver ore to the trading post from the northern extremity of Queen Charlotte's Island. An inexhaustible supply of bituminous coal, of a good quality, may be had upon Vancouver's Island. It lies near the surface, is gotten out with crow-bars, and is near to a good anchorage.

CHAPTER XX.

TREES AND SHRUBBERY OF OREGON.

FIR-TREES constitute the largest part of the forests of Oregon. There are three species of the fir—the red, white, and yellow—varying in foliage and color. The foliage of the red resembles that of the same tree found in the United States; that of the white is a compound leaf, wherein a single petiole has several leaflets attached to each side of it oppositely, while that of the yellow is only on the upper side. The balsam is like that found elsewhere in all its three species. Yellow and Norway pine are natives west of the Cascades of the Columbia. White pine is also a native in several places west of the Rocky Mountains. The yew is very scarce, but is found among the evergreen trees. The cedar grows to a great height, is abundant and valuable. I have seen many that were at least seven feet in diameter. Black and white oaks are found, the former in the mountains, the latter in the forests upon the plains and hills west of the Presidents' Range. The common aspen, balm, and cotton poplars are also found. The common aspen and cotton are the same as those which grow in the States. The balm grows in fertile sections of the country, and has its leaves ovated. The willow, in all its species, is common to the country. There

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are but few maples. In some parts of the country I observed a species of the laurel growing, which had a smooth bark, red color, ovated leaves, and was larger than the common laurel. This tree has been called the strawberry. The common and broad-leaf ash, the latter being very solid, are found. I have frequently seen alders, two and a half feet in diameter.

Between the Chimikane Mission and the Spokane the country is poorly timbered, with small-sized larch, spruce, and pine. Along the shores of the river there are a few alder and willow bushes. At a considerable distance from the Spokane, in a direction east-north-east, pines are found sparsely growing. Upon the hills, and in the marshy ground around the lakes, cotton-wood and willows are seen. On the Wallawalla river, wood, consisting of the poplar, birch, willow, and alder, are found. The poplar here attains the height of one hundred feet. On the Spipen river a few pines and the larch, or hackmatack, grow.

In Western Oregon the woods consist of pine, fir, poplar, arbor-vitæ, spruce, arbutus, tew, ash, maple, willow, yew, and cedar. In the neighborhood of Astoria there are forests of pine, which have long been noted for their beauty and size. I have learned that pines have been measured there that were, at a height of between six and a dozen feet above the ground, thirty-nine or forty feet in circumference, their bark was nearly a foot thick, the tree perfectly straight, and between two and three hundred feet high. On Oak Island are found extensive groves of white oak. It is hard-grained and very durable. It is considered the best wood for hooping, and is used for the various purposes to which the hickory and oak are applied. Its

specific gravity is much greater than that of water. In many portions of the country, situated between Puget Sound and Mount Harrison, many of the forests consist of spruce, some of the fallen trees in which have been measured, and found to be 265 feet in length. A tree that had fallen was measured, and found, at a distance of ten feet from its roots, to be twelve feet in diameter; and where the top part had been severed by the fall from the main trunk, it was a foot and a half in diameter. The height of the tree, when growing, must have been at least three hundred feet. These trees are perfectly erect, and, for a distance of one hundred and fifty feet, the trunks are without branches. In many places the trees that have fallen down present barriers to the vision, even when the traveler is upon horseback; and between the old forest trees that are lying prostrate, can be seen the tender and small twig, beginning its journey to an amazing height. Along the Smaloch river the forests are principally of maple, cotton-wood, spruce, pine, and alder, with underbushes of raspberry, used by the savages for food.

The variety of shrubbery in Oregon is very great; but I shall mention only a few of them. Several varieties of thorn are found in various parts of the country, many of which are very large and beautiful. East of Mount Harrison the buckthorn grows fifty feet high. A very beautiful appearance is presented by those which bear a red fruit. There is a variety of thorn which is not only peculiar to Oregon, but peculiar to the Blue Mountains and to the Wallawalla and Umatilla rivers. Its fruit is black, and has a pleasant taste.

About Wailatpu there is a profusion of bushes,

bearing edible berries, on the banks of the streams, consisting of the service-berry, two kinds of currants, whortleberry, and wild gooseberries. The service-berry, wherever found in Oregon, is about the size of a small thorn-apple, is black when ripe, and has a pleasant taste. Of currants there are three varieties in Oregon:—the pale red, the black, and the yellow; all of which have an agreeable, acid taste; yet they are inferior in this respect to those cultivated in the States, nor are they so prolific. Of the gooseberry there are several varieties, all of which are pleasant to the taste; but those are found to be the best, which grow on the prairies. The prickly gooseberry grows on a thorny bush, and is very large. Of the smooth gooseberries there are three kinds—one yellow, and two white, the one being small and the other large—all of them having a fine flavor.

In the vicinity of Fort Okonagan, are many fruit bearing shrubs, among which are the gooseberry, June berry, and currant.

East of Mount Harrison, and between that and the Columbia river, the undergrowth is composed of a prickly species of aralia, gaultheria, hazel, and vaccinium.

Between Nisqually and Mount Harrison, cornus, gaultheria, hazel, spirææ, and vaccinium abound.

Cornus, hazel, prunus, and spirææ, constitute the characteristic shrubbery around Nisqually. Rubus and alder predominate in the vicinity of the Bute prairie. Arbutus, cornus, hazel, and rubus, form a thick undergrowth among the pines, spruces, and oaks, which cover the Elk Mountains, at the head of the Wilhamette valley.

The beautiful *Symphoria racemosa*, which is known in our gardens, in the States, as the snowberry, is a spontaneous shrub in many places in Oregon. The salalberry is a pleasant, oblong fruit, of a dark purple color, and about the size of the grape. In addition to the raspberries known in the States, there is a species peculiar to Oregon. It grows in the forests, is yellow, much larger than the common raspberry, but has not so fine a flavor. Choke-cherries are common to all parts of Oregon; but they are usually bitter and unpleasant to the taste.

CHAPTER XXI.

FLORA AND NUTRITIVE ROOTS OF OREGON.

THE Flora of Oregon is varied and beautiful; but since it will be impossible to describe it as it is seen in each particular portion of the country, or even to enumerate every variety of plants so found, I shall confine myself, for the most part, to mentioning the names of such as occur in a few localities.

There are few places where the variety and beauty of the flowers are so great as they are around Port Discovery. Admiration and astonishment are excited by the profusion and loveliness of the *Claytonia*, *Collinsia*, *Dodecatheon*, *Leptosiphon*, *Scilla*, *Stellaria*, *Trifolium*, *Viola*, etc. They grow in a light brown loam.

Nothing can be more beautiful, or appear more luxuriant than the plains around Fort Nisqually in the season of flowers. At this time, the *Balsamoriza* (a small sunflower peculiar to Oregon), *Collinsia*, *Lupines*, *Ranunculus*, *Scilla*, and many others, which greatly vary in color and kind, give to this quiet scene, an unsurpassed interest. The soil consists of a light brown earth, intermixed with a large proportion of gravel and stones.

At some distance east of this locality, the yellow *Ranunculus*, a species of *Trillium*, in thickets, with large leaves and small flowers, *Lupines*, and cruciferous plants, are found growing upon a soil of deep black, vegetable loam, along the streams.

The herbaceous shrubs found on the eastern side of Mount Harrison consist, for the most part, of *Goodyera*, *Neottia*, *Viola*, *Claytonia*, and *Corallorhiza*.

Still further east, and between that mountain and the Spipen river, *Compositæ*, *Cypripedium oregonium*, *Ipomopsis elegans*, *Paeonia brownii*, *Pentstemon*, and *Purshia tridentata*, are met with, growing indifferently upon light brown and deep black soils.

Cruciferous plants, which, although extremely bitter, the Indians gather for food, grow on the rocks along the Columbia, below Fort Okonagan.

A singular species of *Trillium*, almost stemless, is found on the banks of the Columbia, a little below the north end of the Grand Coulée.

Red honeysuckles (*Caprifolium*), Columbine, Lupine, and Cammass flowers, are found in great profusion, around Fort Vancouver. The soil is a light, sandy loam.

Wall-flowers, Lupines, *Scilla*, etc., adorn the Yam-hills. The soil in many places is light brown or red, and in others, a black, vegetable loam. *Compositæ*, *Dalea*, *Oberonia*, *Opuntia*, *Rubiaceæ*, and *Salsola*, grow upon the sandy plain about Wallawalla.

The coast vegetation between Cape Disappointment and Cape Flattery, consists for the most part of *Ambrosia*, *Aster*, *Armeria*, *Gramineæ*, *Ledums*, *Myrica*, *Oberonia*, and *Vaccinium*.

The sweet flowering pea grows spontaneously, and greatly embellishes some portions of the country. Red clover, differing in some respects from that cultivated in the States, is found in some small and fertile valleys. White clover grows in many parts of the upper and more mountainous regions. The climbing honeysuckle

is found in many places, and is one of the most beautiful ornaments in nature.

Of the nutritive roots I will mention a few only.

The *Ithwa*, or cammass-root, is tunicated like the onion. It is found in great quantities on the prairies, or in humid ground. It grows to about the size of a small onion, and its taste resembles boiled chestnuts, or licorice. The Indians pound and roast it, and make it into bread, and then dry it. It forms a great article of subsistence with them.

The *Wappatoo*, or arrow-head root, is bulbous, and grows in marshes or shallow lakes, in the valley of the Columbia, east of the Presidents' Range of mountains. The squaws procure this root from the marshy places, where it is found. It is soft when cooked, and is used to a great extent by the Indians, with whom it is an article of traffic.

The *Spatylon*, or bitter-root, is thin and white. It resembles vermicelli in its appearance. When cooked it makes a jelly something like arrow-root. It grows only in gravelly ground; and, though bitter in its taste, is not unpalatable.

There is a bitter root described by travelers under the name of *Racine amère*, which is found in dry soils. It is thick, tapering at each end, and is considered very nutritive; but whether it is the same as the spatylon I am unable to say.

The *Pox-pox root* appears early in the spring, and is used by the Indians, until the more nutritious roots are fit for food. It very much resembles the cammass-root.

The *Mesani-root* grows in the same shape that the parsnip does. It is not a very nutritious root. When

baked, it has a black appearance, and a singular taste. It is collected about the middle of autumn.

The *Cowish*, or biscuit-root, is a little larger than a peach, grows in dry soil, and is used in the place of bread, for which purpose it answers tolerably well. Its taste is like the sweet potatoe, and the manner of preparing it is similar to that of the *ithwa* or *cammas-root*.

There is a root found upon the slaggy lavas of volcanoes, where nothing else will grow, which puts forth a beautiful flower of a red color. Its name I do not remember.

CHAPTER XXII.

CLIMATE OF OREGON.

NATURE has divided Oregon, by means of the mountains of that country, into three great divisions, to each of which has been given a climate widely differing in some respects from the other two.

In Eastern Oregon, or that part which is situated between the Rocky Mountains and the Blue Mountains, rain seldom falls, from the middle of April to the middle of October. The heat between these two periods is sometimes extreme, but the nights are usually cool. The atmosphere is very dry, and the vegetation upon grounds not watered by springs and brooks, is consequently parched. In the winter, the snow, during three months, lies upon the ground from fifteen to eighteen inches in depth, between Fort Laramie and Fremont's South Pass. Between this point and Green river, the snow decreases in depth, but remains longer. Between Green and Bear rivers, the hunters and trappers affirm that snow is rarely found at any time; but that descending the river northerly to the Soda Springs, snow is again found from one and a half to two feet in depth. Between that point and the Blue Mountains, by the way of Fort Hall, snow seldom falls beyond a few inches in depth. Mr. R. Campbell, a merchant of St. Louis, spent three winters in succession, and a part of

the fourth, in the mountains between Fremont's South Pass and Fort Hall, and about the head of Salmon river. He says that "one winter only the snow fell three feet deep. Fall commences 1st to 4th November (does not vary in time), very little, and melts off. At Christmas, the heavy fall commences; the falls are not frequent, and are dry; remain until April. Some winters but little snow, so that we could travel over most of the country. We found buffalo, all winter, living on the grass under the snow, which they root up. Our animals were sustained in the same manner."

At Fort Hall, the cattle thrive well in winter, and do not require housing, although the climate may perhaps at some times be regarded as a severe one.

The mission station of the Rev. Mr. Spalding is at Lapwai, in the extreme western part of Eastern Oregon, in latitude 43° , $27'$, north, longitude 118° , $30'$, west; 468 miles from the mouth of the Columbia river. The following extract from the narrative of Com. Wilkes, will show the general character of the climate, and the greatest extremes of the temperature:—

"Mr. Spalding, during his residence of five years, has kept a register of the weather. . . . He regards the climate as a rainy one, notwithstanding the appearance of aridity on the vegetation. There is no doubt of its being so in winter, and even during the summer there is much wet. A good deal of rain had fallen the month before our visit. The nights were always cool. The temperature falls at times to a low point. On the 10th December, 1836, it fell to -10° ; and subsequently was not so low till the 16th of January, 1841, when it fell to -26° ; and on the 10th of February, it was as low as -14° ." The greatest heat experienced during his

residence was in 1837. On the 23d July, in that year, the thermometer was 108° in the shade. In 1840, it was 107°. The extreme variations of the thermometer are more remarkable, the greatest monthly change being 72°; while the greatest daily range was 58°. Mr. Spalding remarks, that, since his residence, no two years have been alike. The grass remains green all the year round.”

The following are the results of the meteorological observations of the Rev. Mr. Spalding:—

	1837.	1840.	1841.
Mean temperature	56·2	53·6	50·3
Fair days	159	172	70
Cloudy days	77	93	45
Rainy days	85	88	48
Snowy days	14	12	14
Mean temperature of these three years 53°.			

Fort Colville is in latitude 48°, 36', 16", north; longitude 118°, 4', west. The climate of this place is more rainy than that of the country below. There is a considerable variation in the temperature often within twenty-four hours. The mercury, frequently in July rises to 100°, and falls to 12° in January. Winter commences in November, and usually ends in March, but flowers are often seen in February. Spring planting commences in April, and fall sowing in October, and the crop sown in the latter month, succeeds best if the autumn has been a wet one. Wheat is harvested in August. The early frosts render corn an uncertain crop. It is planted in May, and gathered in September. Potatoes, beans, and oats succeed well in this climate. The frequent and severe spring frosts have hitherto prevented imported fruits from doing well.

Service-berries, strawberries, hawthorn-berries, and wild cherries ripen from June till September.

The climate of that part of Oregon which lies north of the forty-ninth parallel, and between the Rocky Mountains on the east, and the Presidents' Range on the west (the Blue Mountains do not extend farther north than the forty-ninth or fiftieth parallel), is unfavorable to agriculture, in consequence of both these ranges being constantly covered with snow. The cold in the intervening country, however, is not usually remarkably severe, although the snow lies on the ground from November till April, or even May, and on an average six feet deep. From the end of May till the beginning of September, fires can be dispensed with; for the remainder of the year they are necessary.

The climate of Middle Oregon, which comprises that portion of the Territory, situated between the Blue Mountains on the east, and the Presidents' Range on the west, is materially different from that of both Eastern and Western Oregon. The extremes of heat in summer, and cold in winter, are not so great as in the former, although it has the same dry summer that is common to the three divisions. The heat of the summer is greater than it is in Western Oregon, and the ground and vegetation are consequently more dried. The spring rains cease here earlier, and the people harvest in June. In winter there is more snow, but less rain than in Western Oregon. The mercury seldom falls very low. The winter of 1846-7 was said by trappers, who had been in the country since the Tonquin, owned by John Jacob Astor, arrived at the mouth of the Columbia in 1811, to be upon the

whole the hardest winter ever known in the country; and yet the mercury at the Dalles sank no lower than eight degrees below zero. The cold is seldom great. The mercury, in Fahrenheit's scale, rose at one time, in 1840, to 100° in the shade; but even the hottest days are succeeded by nights that are pleasantly cool. The atmosphere is dry and healthful, and very little dew falls. Some idea may be formed as to the character of the climate of Middle Oregon, from the fact that Mr. M'Kinley, a very worthy and intelligent gentleman, of the Hudson Bay Company, who, in January 1841, passed from the country of Lewis river across the Blue Mountains, found six feet of snow, but upon descending into the valley upon the western side of the mountains, the weather was warm and pleasant, the grass green, and the flowers in bloom.

In the vicinity of Wallawalla there is little winter, in consequence, as is believed, of the hot winds which sweep along from the extensive sandy-deserts of Upper California. This wind is of a hot, burning character, and in the summer it blows constantly from the southwest, and greatly exhausts the vital energies. At night this wind increases almost to a gale. In consequence of the heat, and clouds of sand, which the wind brings, there is very little vegetation near the fort.

The climate of Western Oregon, or that portion of the Territory situated between the Presidents' Range on the east, and the Pacific Ocean on the west, is mild and healthful. This region has a rainy rather than a winter season. The rains usually commence between the 20th of October, and the 1st of November, and continue with many interruptions, until between the 10th of March and the 10th of April. The number of

days upon which the rains fall within these periods, does not exceed, perhaps, the rainy and snowy days in the States.

Up to the 10th of February 1848, ice had not formed to a greater thickness than three-fourths of an inch, at Oregon City, which is in latitude $45^{\circ}, 20'$. This was in still water in small quantities, and was the result of three days and nights of the coldest weather of that winter.

A journal of the weather in 1845-6, kept at Oregon City, shows that between the 1st of November, and the 1st of March, there were twenty rainy days, and forty clear days; the other days between these periods being either cloudy or rainy and clear.

The Rev. George Gary, late Superintendent of the Methodist Missions in Oregon, informed me that on the 25th of December 1845, he ate green peas, grown in the open air in his garden in Oregon City, and taken from it on that day. The winter of 1846-7 was the coldest one, known by those who had been in the country, as trappers, since 1811. During that winter the mercury fell no lower than 2° above zero, in Fahrenheit's scale. The following extracts from Com. Wilkes' Narrative of the Exploring Expedition, will also assist the reader in forming an opinion upon this subject:—

“On my first visit to Vancouver, Dr. McLaughlin was kind enough to offer to keep a meteorological diary for me, during my stay on the coast, that I might have the means of comparison. They had formerly been in the habit of noting the changes that occurred, and for many years had kept a journal; but this had been for some years omitted. The task

would be but trifling in such a well regulated establishment, and it is surprising that it should not have claimed more attention. The night observations seem to be the principal difficulty. In the register kept during our stay, the instruments were only noted in the daytime, and the record is not available for the mean temperature of the twenty-four hours; but, as it may serve to show the state of the weather, during the summer months, at Vancouver, I will give an abstract from it. The barometer and thermometer were both compared with our standard, and found nearly to coincide.

Months.	6 A.M.		2 P.M.		6 P.M.	
	Barom.	Ther.	Barom.	Ther.	Barom.	Ther.
June . . .	30·71 in.	51°	30·27 in.	63°	30·30 in.	62°
July . . .	30·40 "	61	30·36 "	87	30·37 "	72
August . . .	30·28 "	60	30·27 "	86	30·29 "	70
September .	30·28 "	53	30·25 "	78	30·30 "	58

“ This gives the mean standing of the barometer and thermometer, during the day hours, at 30·32 in., and 66·33°, for the summer months.

“ The state of the weather, during the period of one hundred and six days, was as follows:—

Fair	76 days.
Cloudy	19 "
Rain	12 "
	—
	106 days.

“ In my inquiries of the residents, I am inclined to the opinion, that the above is a very fair estimate of the weather; though they almost all differed in their state-

ments: some spoke of the season as a very bad one; others thought it was very fine. The crops of all descriptions of grain were good, which I supposed to be the best criterion.

“The climate of the western section, throughout the year, is mild; and they neither experience extreme heat in summer, nor severe cold in winter. I am disposed to believe this to be owing to the constant prevalence of the southwesterly or ocean winds. It certainly is not owing to any warm stream setting along its shores. The current near the coast sets to the southeast, and is of a cold temperature; it would rather tend to lessen the heat in summer, than the cold in winter. There have been no observations kept by the missionaries in this lower section of the country. It is liable, from the experience of our parties, to early frosts, owing to the proximity of the snowy mountains. Frosts sometimes occur in the latter part of August, which check all vegetation at that early season.

“The southwest winds are caused by the vast extent of the sandy and arid country lying east of the Cascade (Presidents' Range) and California Mountains, which, becoming heated, rarifies the air, and causes an indraught from the west. This current is found to increase in violence as the rarefied region is approached; and so constant is this draught, that we experienced only three days of easterly winds during our stay, and these were very moderate in force. Immediately on the coast, the winds are from the west-southwest to the west-northwest: these maintain their direction until they reach the interior, and blow with great violence.

“The winters are invariably what would be termed open ones with us. Snow seldom falls; and when it

does, it rarely lasts more than two or three days. The rains during this season are frequent, though not violent. The climate in the western section, from all accounts, is not unlike that of England, and would be termed a wet one. The winter of 1840 was the severest they had yet experienced."

Of the climate of Nisqually, the reader may form an opinion from the following extract from Com. Wilkes' Narrative of the U. S. Exploring Expedition:—

"The country in this vicinity is thought to be remarkably healthy, and on all these salt water inlets, the winter is represented to be mild, and of but short duration. The mean temperature, six feet under ground, during our stay at the observatory, from the 20th of May till the 14th of July, was found to be 58·5°. I was not fully satisfied that this record gave correct results for the mean temperature of the climate, although frosts do not penetrate the ground; for, by the same manner of trying it, and under almost the same circumstances, at Astoria, we obtained only 54°, although that place is a degree to the south of Nisqually. The greatest range of temperature was found to be 55°; the lowest, 37°; and the mean, during the same period, 63·87°; the barometer standing at 29·970 in."

The climate in the vicinity of Hood's Canal does not differ from that of Nisqually.

I have been thus minute in particulars having reference to the climate of Oregon, because of its importance to those desiring information upon the subject. A very brief extract from Senate Documents, Miscellaneous, No. 143, Thirtieth Congress, First Session, containing my memorial, praying the establishment of a Territorial Government in Oregon, and for appropriations for

various purposes, will conclude what I have to say upon the subject of the climate of that country:—

“The farmer in Oregon possesses many advantages over those in the States. The latter, with an ordinary stock of cattle, is usually compelled by the severity of the winter, to feed them in that season, all, or nearly all, that he has grown during the spring, summer, and autumn. In Oregon, the winter is much milder than it is on the Atlantic side, several degrees farther south. The grass frequently grows all winter. The Rev. George Gary, the late Superintendent of the Oregon Mission, informed your memorialist, that on the 25th December, 1845, he ate green peas, grown in the open air, in Oregon City, and taken from it on that day. Oregon City, if your memorialist is not mistaken, is in latitude 45° , $20'$, north. The winter, commencing November 1st, 1846, and ending March 1st, 1847, was more severe than any that had preceded it in thirty-six years. The mercury in Fahrenheit's scale fell at one time, at Oregon City, to 2° above zero; at Nisqually, Puget Sound, to 6° below zero; and at the Dalles of the Columbia, to 8° below. The snow remained upon the Wilhamette valley a foot in depth, during three weeks.”

CHAPTER XXIII.

SOIL OF OREGON.

I HAVE already had occasion in my remarks upon the mountains, rivers, lakes, harbors, etc., of Oregon, to advert to the character of the soil. It is thus rendered unnecessary to dwell long in this place upon this subject.

Eastern Oregon is, with the exception of a few small valleys, a sterile region, uninhabited and uninhabitable, and must forever continue to be so, until God shall be pleased to change the laws of nature. The soil that is found in some places, is for the most part impregnated with various salts, principally the carbonate and bi-carbonate of potash, and is but little adapted for cultivation. It is probable that an agricultural population could be sustained in the Bear river valley, and in the vicinity of Fort Hall. At the latter place, some imperfect attempts at agriculture have resulted in the production of small grains and vegetables, in quantities sufficient to supply the wants of the post; when I was there, on the 7th day of August, 1846, the price of flour was \$40 per barrel. It may be, however, that this was owing to the fact, that attention was given to hunting, trapping, and trading with the Indians, rather than to agriculture, beyond what was necessary to supply the wants of the post, and without either the expectation or desire for a market.

The following is an analysis of the soil in the river bottom near Fort Hall, as examined by Colonel Fremont:—

Silica	68.55
Alumina	7.45
Carbonate of lime	8.51
Carbonate of magnesia	5.09
Oxyd of iron	1.40
Organic vegetable matter	4.74
Water and loss	4.26
	<hr/>
	100.00

The soil of the lowlands on each side of Powder river and its affluents, and upon the elevated lands in the vicinity, is very deep, black, and extremely good, and the vegetation such as is usually found on good ground. The following analysis of Powder river soil, is from Col. Fremont's Narrative:—

Silica	72.30
Alumina	6.25
Carbonate of lime	6.86
Carbonate of magnesia	4.62
Oxyd of iron	1.20
Organic matter	4.50
Water and loss	4.27
	<hr/>
	100.00

The soil about the missionary station of Lapwai, on the Cooscootske* is productive. Excellent crops of wheat, potatoes, corn, melons, pumpkins, peas, beans,

* "The name of this river in the Journal of Clarke and Lewis, and in all other writings I have seen, is written Cooscooskee [or Kooskooskee]. This signifies the *water-water*. But Coos-coots-ke signifies the *little water*. Coos, water; coots, little; ke, the:—The Little River."—*Parker's Journal*.

etc., have been raised; and I have been informed that that these almost uniformly do well.

This station is situated in a fertile valley running in a southerly direction from the Cooscootske. The Indian farms contain from five to twelve acres each, all fenced in, and on one of these an Indian raised in 1840, four hundred bushels of potatoes and forty-five bushels of wheat.

This portion of Oregon is well adapted to the raising of sheep. The ewes bear twice a year, and frequently produce twins. Horned cattle also do well.

The tract of country between the missionary station of Chimikane (sixty miles south of Fort Colville) and the Spokane is rather sterile, and but thinly wooded with spruce, larch, and pine, neither of which is of great size. The margin of the river is generally formed of sand and gravel, having a few alder and willow bushes growing upon it.

The country south of the Spokane is for the most part of igneous formation. It is generally level, and geologically characterized by flinty trap rock, of which the latitude of 48° north, seems to be the limit, commencing as far west as the Strait of Juan de Fuca, and running eastward on that parallel to the Rocky Mountains. North of that line, trap gives place to granite.

A rich and productive soil is found at Pierres's Hole, and the adjacent country. To this may likewise be added, Racine Amère, east of Salmon river Mountains. On Mill river, which unites with the Columbia at Fort Colville, from the south, there is a valley of rich bottom lands more than fifty miles in length. The hills on each side of this valley, are covered with forests of

fine timber. The country west of the Salmon river-Mountains, the Spokane woods, Okonagan, and the country lying between that and the range of mountains through which the river passes at the Falls, is a vast prairie, generally covered with a fine coat of most nutritious grass, and having in very many places an excellent soil.

The peculiarities of the soil in the immediate vicinity of Fort Colville render it superior, for the purposes of cultivation, to any other portion of the country upon the upper Columbia. Although 2200 feet above the sea, and in latitude $48^{\circ}, 36', 16''$, north, longitude $118^{\circ}, 4'$, west, yet the whole of the northern posts of the Hudson Bay Company, depend upon the cultivation of crops at Colville for supplies of provisions. Wheat, corn, oats, potatoes, and beans are cultivated at this place. The corn however is not a sure crop, and generally not a good one, in consequence of the frosts of spring and the early frosts of autumn.

In the country lying between the Spokane and the Cooscootske, there are small valleys of great fertility, some of them being well covered with clover, growing spontaneously. Com. Wilkes, in his Narrative of the U. S. Exploring Expedition (vol. iv., p. 458), in speaking of one portion of his party that passed from Chimi-kane to Wallawalla via the Spokane and the Cooscootske, says, "In the afternoon, they passed through a rich and fertile valley, running in a southwest and northeast direction, in which the horses sank in clover up to their knees."

In the country lying north of the 50th parallel of north latitude, and between the Presidents' Range and the Rocky Mountains, there are many spots of fertile

land along the rivers, but the late frosts of spring and the early frosts of autumn will ever be an insuperable obstacle to agriculture as a profitable pursuit. Potatoes, turnips, wheat, and barley, are, however, produced to a limited extent at Fort Alexandria, in latitude 52° , $30'$ north; but only potatoes and turnips are cultivated at Forts St. James and Babine.

A large extent of country lies off to the south and southwest of Lewis river, including the country of the Shoshonees, which is a barren and cheerless waste, of such desolation in its appearance, that in passing through it, I sometimes said to my companions that the sight of it was enough to break the heart of even a sand-cricket. Indeed, I hazard nothing in affirming that the interior of America may be regarded as a great desert. Still, however, enough has already been said to show that this remark is not true without qualification. And it is probable that future explorations will result in the discovery of other valleys than those already mentioned, possessing a fertility promising, at least, some reward to agricultural industry, and constituting them an exception to the general sterility that is affirmed of Eastern Oregon.

Middle Oregon is not so well wooded, nor has it so fine a soil generally as Western Oregon, but it is superior to Eastern Oregon. After passing the Dalles of the Columbia, going eastward, an entirely new description of country presents itself; for although there are some forests east of this point, yet, as a general remark, it may be said that the line of woods extends no further than this point. The woods terminate at about the same distance from the coast in all parts of Oregon south of 48° north.

The country in very many places along the banks of the Wallawalla and its tributaries is fertile, and, except in the dry season, presents a green and luxuriant appearance. Immediately around Fort Wallawalla, there is no soil even for a garden, but a spot of near fifty acres, three miles distant, on the banks of the Columbia, where corn, wheat, pease, potatoes, etc., are cultivated. The garden embraces two acres, and has a deep, fertile soil of brown loam. The plants upon the sandy plain about the fort are *Salsola*, *Opuntia*, *Dalea*, *Oberonia*, *Rubiaceæ*, and *Compositæ*.

To the north and south of the Wallawalla river are extensive prairies, covered with grasses, which, springing up and growing luxuriantly in the early spring rains, are converted by the great heat of July into a natural and most nutritious hay, upon which the cattle feed, and which they prefer to the young grass of the meadows bordering the stream.

The soil in the vicinity of the small streams near the mission station of Wailatpu, is a deep and rich black loam. The quantity, however, susceptible of irrigation does not probably exceed ten thousand acres. This can be made to yield most luxuriant crops. Wheat grows here seven feet high, and corn nine feet. In the kitchen-garden which was cultivated at this place until the late Dr. Whitman and family were murdered by the savages, all the vegetables usually cultivated in the United States were raised.

It should be remarked, however, that such is the dryness of this climate, that irrigation will, probably, generally be necessary to the production of good crops. The climate is very dry, as it seldom rains for seven or eight months in the year, during the greater

part of which time the country, forty miles north and south of this strip, assumes a brown and parched appearance.

Although this country is not very well adapted to agricultural pursuits, it is yet truly a bucolic region. There is nowhere a better pastoral country. Vast numbers of cattle may be supported upon the natural hay of the country. One Cayuse chief has upon these feeding grounds a vast herd of horses, fifteen hundred of which he is reported to have proposed to give as a dowry with his daughter to any white man who would marry her.

Passing from Waiilatpu to Chimikane and Fort Colville, by the windings of the Peluse river, and over the middle sections of Oregon, the country is an upland plain, covered with herbage, but destitute of trees and running streams, yet having numerous ponds of fresh water.

The soil in the country around Fort Okonagan is too poor for farming purposes, and only a few potatoes are grown. Grass, however, is abundant, and all kinds of cattle thrive remarkably well.

The soil in the vicinity of the Dalles of the Columbia varies in quality, but much of it is very fertile, producing, when irrigated, excellent crops of corn, potatoes, and peas. Wheat is sown in October and March, and yields at harvest (June) about twenty-five bushels to the acre.

While of Eastern Oregon, and a considerable portion of Middle Oregon, it may be said that fertility, in particular places, is the exception to the general sterility, of Western Oregon it may, with great propriety, be affirmed that places of sterility are the exceptions to

the general fertility of a country, nowhere excelled in beauty and sublimity of scenery, or surpassed in uniform productiveness. And I make this remark upon the subject of the productive capacity of Oregon in full view of the fact, that I have already conceded that in very favorable seasons, in a few particular places in California, and under other peculiar circumstances, a greater number of bushels of wheat, per acre, have been grown, than have ever been produced in Oregon. But it must not be forgotten, that the crops of Oregon are uniform, and the seasons constant, while the crops of California are far more uncertain, and the seasons frequently irregular. Such an occurrence as seed put into the ground, in a manner making even a tolerable approach to that of good husbandry, failing to produce a good crop, has never been known in Oregon. This, unfortunately, can not truthfully be affirmed of crops sown in California.

The soil of Western Oregon varies from a deep black vegetable loam, to a light brown, or red loamy earth, which probably receives its coloring matter from the oxyd of iron. The bottom lands and prairies are usually characterized by the former, while the heavy timbered lands, and the hills covered with beautiful open oak groves, are characterized by the latter. The red soil of the uplands is believed by many to be the most productive. It is certain that the continued dry weather will not cause it to bake, as the lowlands of black soil frequently do.

The La Creole, which has been corrupted to Rick-reall, is a tributary which the Wilhamette receives upon its western side, about sixty miles above Oregon City. The Lumtumbaff, which has been corrupted to

Long Tom Bath, is also a tributary of the Wilhamette, which it receives upon the western side, about ten miles above the La Creole. Between these two affluents the rocks change from a basalt to a whitish clayey sandstone. The soil also varies with it to a grayish brown, instead of the former light brown or red. Proceeding up the valley, south of the Lumtumbaff, some portions of the prairies are composed of gravel and white sand, mixed with clay, while in most places they are characterized by a deep black vegetable loam.

The soil of the Wilhamette valley is the most fertile in Oregon, but the imperfect tillage it has received renders the quantity of grain grown upon any given portion of it an imperfect measure of its productive capacity. Emigrants usually arrive in the country in autumn, with their teams broken down, and with their own vital energies exhausted by the privations, hardships, labors, and fatigues of a protracted journey. They are likewise without farming utensils, all of which are scarce, and command high prices. To this may be added, that they are mostly without money, and are in other respects not in a condition to commence the tillage of the soil in a manner that would justify the expectation that it would yield a return for their labor, equal to its productive capacity. The scarcity and very high price of farming utensils (I have seen cast iron ploughs sell for \$45), prevent those who have been longer settled from cultivating the land in a proper manner. An opinion, however, may be formed upon this subject from the fact, that from ten acres sown in the Wilhamette valley, near the Methodist Mission, fifty-four bushels and three pecks per acre were obtained. The ground was

prairie, having the wheat sown upon the newly-turned sod, and harrowed in, I believe, by dragging a pile of brush over it. Upon being reaped and thrashed, it was measured, and found to yield as above. These facts were related to me by the owner, Mr. A. B. Smith, of Yamhill county, who sustains the reputation of a most worthy and excellent man.

It must not, however, be inferred from the foregoing, that it is any thing like an example of an average yield. This does not, in the present state of agriculture in Oregon, exceed, if it even equals, the half of that number of bushels. But the late Dr. Marcus Whitman, who was during several years a missionary in Oregon, informed me that he was well acquainted with the character of the Genesee country, which is, perhaps, the best wheat growing country, not only in New York, but in the United States; and that the Wilhamette valley at least equaled, if it did not even surpass, the Genesee valley in this respect. And he expressed the opinion that the labor and skill of the New York cultivators would cause the lands of the Wilhamette valley to yield from forty to fifty bushels per acre.

The following general remarks upon the soil of Oregon, from a "Journal of an Exploring Tour beyond the Rocky Mountains," by the Rev. Samuel Parker, A.M. (p. 342), are inserted here as being useful, and to the point:—

"Far the greater part of the soil of Oregon is formed from decomposed lava, and other like substances, reduced by atmospheric agencies, which forms a fine, rich black mold. Some parts, however, are in a different condition: such as the great desert of the Shoshonees or Snake country. . . . This desert, occupying

as it does, so many square miles, is to a great extent covered with scoria and other volcanic matter, which, from their nature, render it a barren region. Other tracts of country are argillaceous. In several localities, escarpments of clay, diversified in structure, are presented. The layers are from a few inches to twenty feet in thickness. Their colors are dusky red, brown, blue, green, yellow, and, in some instances, pure white, and not unfrequently more or less indurated. Still, other tracts are calcareous; and some parts, especially near the Rocky Mountains, are covered with a silicious sand, mixed with a volcanic detritus; while a few, and only few, parts of the country afford vegetable mold."

Some further information upon this subject will be found in the somewhat kindred chapters upon productions and geology. I shall, therefore, conclude my remarks under this head, by making three extracts from Com. Wilkes' narrative; the first of which directly touches this subject, while the others are not wholly irrelevant, and certainly not uninteresting. He says: "In comparison with our own country, I would say that the labor necessary in this territory (Oregon) to acquire wealth or subsistence, is in the proportion of one to three; or in other words, a man must work throughout the year three times as much, in the United States, to gain the like competency. The care of stock, which occupies so much time with us, required no attention there; and on the increase only a man might find support." He further says: "There will be also a demand for the timber of this country, at high prices, throughout the Pacific. The oak is well adapted for ship timber; and abundance of ash, cedar

cypress, and arbor-vitæ, may be had for other purposes—building, fuel, fencing, etc.” Again he says: “No part of the world offers finer inland sounds, or a greater number of harbors, than are found within the Straits of Juan de Fuca, capable of receiving the largest class of vessels, and without a danger in them which is not visible. From the rise and fall of the tides (eighteen feet) every facility is afforded for the erection of works for a great maritime nation. The country also affords as many sites for water-power as any other.”

CHAPTER XXIV.

PRODUCTIONS OF OREGON.

THE productions of Oregon are necessarily greatly limited, in consequence of its recent settlement and remote geographical position. The following table of the productions of Oregon for the year 1846, is in part ascertained by assessors, and in part estimates:—

Counties.	Wheat.	Oats.	Pease.	Potatoes.
	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>
Polk	20,000	14,720	5,200	6,100
Yamhill	24,546	5,217	1,009	10,076
Twalatin	33,000	21,000	5,400	13,000
Clatsop	8,000	5,217	6,400	7,000
Lewis	12,450	9,250	4,475	5,760
Vancouver	21,000	15,700	6,200	7,080
Clackamus	19,867	12,140	4,900	9,000
Champoeg	6,000	36,000	12,420	21,400
	144,863	129,244	46,004	73,416

In the month of April, 1847, there were exported 1736 barrels of flour; 171,000 feet of lumber; and 96,000 shingles. At the time I sailed from the Columbia river (Nov. 4, 1847), it was believed that 180,000 bushels of wheat had been produced in addition to oats, barley, rye, pease, potatoes, turnips, etc. The *Whiton*, in which I sailed, was laden with flour, lumber, potatoes, and butter, for the California market. We spoke the *Janet* off the harbor going in for a load

of lumber that was in readiness for her for the same market. The brig Henry arrived in the port of San Francisco a few days after my arrival in California, with a cargo of lumber, flour, beef, salmon, butter, and potatoes. At the time the Henry sailed, the Cowlitz was taking in a similar cargo also for the Sandwich Islands.

Notwithstanding these exports of the productions of the country, flour was selling for \$7 50 per barrel at the time I sailed, although 4000 immigrants had just arrived in the country. The fact shows that there was believed to be an ample supply yet remaining for the home market.

The Oregon wheat is heavier than, and in all respects superior to, any wheat raised east of the Rocky Mountains. Mr. Townshend of the National Institute at Washington, having traveled in Oregon, and been an attentive and accurate observer, says that wheat, rye, barley, pease, and culinary vegetables of all kinds are raised in ample quantity; that the wheat is particularly fine and tall, with long and well filled heads. He affirms that he had an opportunity, subsequently to his return from Oregon, of seeing the deservedly celebrated Chilian wheat; but that he considered it decidedly inferior to that grown in Oregon.

Mills are not wanting to saw the lumber, and to grind the wheat when grown, there being at least fifteen saw-mills and eight flour-mills.

Indian corn is cultivated to a very limited extent, but will probably never be a profitable crop in Western Oregon. The heat of the sun is not sufficiently great, the nights are too cool, and there is a want of that rain during the summer season which is required

by maize. It will thus be seen that while the winters of Oregon are much milder than in latitudes much farther south on the Atlantic side of the continent, the summers are cooler. The want of summer rains here spoken of, is a characteristic of the whole western coast of America, from about the fifty-fourth parallel of north latitude, southward. There is, moreover, the additional peculiarity, that the quantity of rain diminishes as we proceed south. In Oregon there are occasional light showers even in the summer. In California there are none at this season, and usually none during nine months in the year.

Several kinds of northern fruits, and especially apples, succeed very well in Oregon. So far as I am aware, however, there is no grafted fruit in the country, all being seedlings. Mr. Townshend, to whom reference has already been made, says that he was particularly struck on his arrival at Vancouver in the autumn, with the display of apples in the garden of the fort; that the trees were crowded with fruit, so that every limb required to be sustained by a prop; that the apples were literally packed along the branches, and so closely that he could compare them to nothing more aptly than to ropes of onions, as they are sometimes exhibited for sale.

I am not aware that hemp has been sown in Oregon, but the opinion has been expressed by practical agriculturalists that no part of the United States is better adapted to it. Flax has been very successfully cultivated, and indeed this country is peculiarly adapted to its growth. This is shown not only by the practical results but by the fact that a species of flax which in the stalk, the boll, the seed, the closing of the blue

flower in the day, and its opening in the morning and evening, and in short in every thing except that it is perennial, is indigenous to the country. It has a long and very tough fiber, which is used by the natives for making fishing-nets.

In addition to the productions already mentioned, there are a great many fruits and berries which grow spontaneously, and in great profusion. Of these I may mention strawberries, cranberries, June-berries, black-berries, whortleberries, service-berries, gooseberries, and several kinds of currants.

To this list of productions might be added several species of nutritive roots, the most important of which are the cammas and the wappatoo, which are described in a previous chapter.

CHAPTER XXV.

FISH AND FISHERIES OF OREGON.

ALL the bays, harbors, sounds, and inlets of Oregon abound with fish; so also do the rivers, the cascades of which do not present an impracticable barrier to the passage of the fish up them. No country in the world, perhaps, has so great a number of fisheries, and in these it possesses in itself a sure means of subsistence, at a low price, and a great source of wealth. I have no certain and reliable information as to the quantity taken, but from the best I could obtain, I estimate it at two thousand five hundred barrels. It is believed, however, that fifty thousand barrels might be taken. Men who are usually prudent and moderate, when contemplating the great numbers of fisheries in the rivers and along the coast, and the almost incredible quantities of fish, have estimated the number which might be taken for exportation at one hundred thousand barrels, after supplying the amount necessary for home consumption.

The salmon run twice a year, beginning in May and October. At these seasons all the Indian tribes subsist upon them. The largest, I believe, are taken in the Columbia river, some of which weigh fifty pounds, but the average weight is about twenty pounds. There are some few branches of this stream

which the fish do not enter in the spring, because, as is supposed, of the water being too cold; but these are abundantly supplied in the autumn, when the water is warmer.

It is believed that there are not less than six different varieties of the true salmon that ascend the waters, commencing between the twentieth of April and the first of June. Their muscular power is very great, as may be seen by any one who stands upon the bank of the Wilhamette, at Oregon City, and immediately below the falls of that stream. I have, during several hours, stood to observe their efforts to throw themselves over these falls, by springing out of the water. Many of them fail, and by falling upon the rocks, kill themselves. At two places the water does not descend at once, but by two leaps. At these the salmon often succeed in throwing themselves upon one bench, and finally into the river above. Very many continue their efforts until they die from exhaustion, when they float upon the surface, a prey to eagles and savages, or float down until they lodge against some tree that has fallen into the river, where they are devoured by buzzards.

It is believed that the salmon, after coming from the sea and entering the rivers, never return, but proceed up to the very sources of the streams. It is known that they enter even the rivulets, still struggling to ascend, until the water becomes so shallow, that the flesh from the nose and under part of the body is worn off by continued rubbing against the gravel and rocks. Multitudes of them thus perish; and their offensive and putrid bodies are devoured by Indians and wild beasts. When not used immediately for food, the

savages hang them upon the limbs of trees for the purpose of drying them, and preserving them from the wolves. These are afterward devoured, though decayed and filled with maggots.

The salmon taken at any considerable distance up the streams are not suitable for food, because of their having become so lean, in consequence of their not finding sufficient food, and by their continued efforts to press on upward. Those taken at Chinook Point, near the mouth of the Columbia, are regarded as the best. Those taken at the Cascades are less valuable, and those taken at the Dalles inferior to these. All, however, are superior to any taken in other parts of the world. But their quality continues to deteriorate in proportion to the distance of the fishery from the sea, until they become wholly worthless. The fish taken at Chinook are remarkably fat, but are not so good for salting as those taken at Wilhamette Falls. The best is a dark silvery fish, weighing from forty to fifty pounds, and three or four feet in length.

Those of the common size are from two and a half to three feet in length, proportionably broad, and covered with imbricated scales of a moderate size. The eye is large, the iris of a silvery color, and the pupil black; the nose extends a little beyond the under jaw, and both jaws are armed with a single series of long teeth, which are subulate, and inflected near the extremities of the jaws, where they are also more closely arranged. They have also sharp points upon the tongue, which is thick and fleshy. The fins of the back are two; the first is placed nearer the head, and has several rays; the second is far back, near the tail, and has no rays. The meat of this is of every shade,

from a deep flesh-color to an orange-yellow, but when very meager, is almost white. The roe is in high estimation among the natives, who preserve it by drying it in the sun.

It is not known where the spawn of this fish is deposited, nor is it known whether the young fry go to the ocean as young fish, or whether the spawn is carried down and matured into life in the salt water. They are believed to return in the fourth year after their descent.

The Indians have many superstitions and practices connected with the salmon. At the commencement of the fishing season, they will not, under any circumstances, either sell or give a fish to a white man, until they have first cut it crosswise and deprived it of its heart. So, also, if any one of their number is about to die, he is taken to the woods, where he expires alone. This custom originates in an opinion that any one who touches a dead body will not be able to take any more fish during that season. A few permit their friend to die in the wigwam, but they cease fishing for several days afterward, from a belief that they could not take fish within the time. They also regard the crossing of a horse at the ford as being very unlucky.

Dogs are very fond of the raw fresh salmon; but it is usually fatal to them. It is only the fresh salmon which, so far as I can learn, is thus injurious. And hence an opinion very generally prevails that the poison is contained in the blood. About the second day after eating the salmon, the dog is observed to be dull and moping. On the fourth day he rejects all nourishment but the fatal salmon, which, if permitted, he continues to devour with great eagerness until he

expires, about the tenth day. In a few cases they are saved.

Of salmon-trout there are at least two kinds, differing, however, only in color. They are seldom more than two feet in length, and are not so broad in proportion to their length as either the salmon or red char; the latter of which will presently be described. The jaws are nearly of the same length, and are furnished with a single series of subulate straight teeth, neither as long nor as large as those of the salmon. The mouth is wide, and on the tongue there are also teeth. The fins are placed much like those of the salmon. The one kind is of a silvery white color on the belly and sides, and of a bluish light brown on the back and head. The other kind is of a dark color on its back, and its sides and belly are yellow, with transverse stripes of dark brown; a little red being sometimes intermixed with these colors on the belly and sides toward the head. The eye, flesh, and roe, are like those of the salmon.

The white species of salmon-trout are generally in good condition, and suitable for food when the salmon are entirely out of season, and not fit for use; they associate with the red char in creeks. This fish is about two feet eight inches in length, and weighs ten or fifteen pounds. The eye is moderately large; the pupil black, with a small admixture of yellow; the iris of a silvery white, a little tinged near its border with a yellowish brown. The fins are small in proportion to the size of the fish, and are bony though not pointed, except the tail and back fins, which are slightly so. The prime back fin and the ventral ones contain each ten rays, those of the gills thirteen, the tail twelve;

the small fin placed near and above the tail, has no rays, but is a tough flexible substance, covered with a smooth skin. It is thicker in proportion to its width than that of the salmon; the tongue is thick and firm, armed on each side with small subulate teeth in a single series, and the teeth and mouth are as before described.

The mountain, or speckled salmon-trout, is found in the waters of the Columbia, within the mountains. They are large, frequenting creeks and small streams, and seem to delight themselves in cool spring water.

The red char is rather broader, in proportion to its length, than the common salmon. Its scales, also, are imbricated, but rather larger; the rostrum, or nose, extends beyond the under jaw, and the teeth are neither so large nor so numerous as those of the salmon. Some of these fish are almost entirely red on the belly and sides; others are much whiter than the salmon; and none of them are variegated with dark spots, though in regard to their flesh, roe, and in every particular of form, they are like that fish.

The *Shrough* is a small fish, resembling the herring, about four inches long. It is found in great numbers in the streams and little lakes about the Strait of Juan de Fuca. This fish is remarkably fat, and it furnishes the natives with their best oil, which is extracted by the very simple process of hanging it up, exposed to the sun, which in a few days seems to melt it away. The oil is received in troughs, and then put into fish bladders, in which it is preserved to be exchanged for the products of other tribes.

Shrough, herring, and sardines, are all taken by the natives in one and the same manner, and in vast

quantities. They first drive the shoals into the small coves or shallow waters, when a number of Indians in canoes continue splashing the water; while others sink branches of pine. The fish are then easily taken out with scoops or wicker baskets. Herrings and sardines, after being cleaned, are strung on rods, and hung in rows over their fires, to smoke; when sufficiently dried, they are packed in mats, for their winter food.

The bays and inlets abound with sturgeon, cod, carp, flounders, perch, herring, and eels; also with shell-fish—crabs, oysters, etc. Great numbers of lamprey-eels are taken in the rivers. I have seen multitudes of them about the rocks at the falls of the Wilhamette, crawling up, by suction, an inch at a time. Far greater numbers fill the crevices below the surface of the water; and I have spent many an hour watching an Indian, who, with a woolen cloth upon his hand, to prevent them from slipping through, would stoop down, and with his right hand firmly grasp the eel, and draw it out of the water, when taking hold of it with his left hand also, he would bring it to his mouth, and crush its head between his teeth; after which he would toss it upon the bank above, continuing to repeat the performance with the most astonishing rapidity, and with the precision of a military drill. When the fellow had caught a pile of eels as large as he could carry, he would go up, and after stringing them upon willow branches, walk away with them hanging over his shoulders and down to his heels, looking as proud as though he would not speak to a savage who had not a load of lamprey-eels.

The salmon fisheries of Oregon constitute one of the great sources of its wealth, and when fully developed by a proper application of capital, will probably be found to be more productive than any other fisheries in the world, if we except those of the great banks of Newfoundland.

I have already in my remarks upon the Wilhamette river, adverted briefly to its great salmon fishery at the falls, and the manner in which the Indians take the fish. Every river of Oregon from which the salmon are not cut off by impassable cascades, has its fisheries, at which great numbers may be taken. But it will only be necessary briefly to mention a few of the most important.

The Cascades of the Columbia is one of those places which, by presenting a partial obstruction to the instinctive efforts of these fish to make their way up the stream, causes them to be found here in great numbers. In addition to the methods adopted by the savages for taking salmon at the falls of the Wilhamette, the Indians at the Cascades construct, of rocks and stones, a sort of canal, about fifty feet in length, through which the salmon seeking to pass, to avoid the stronger current in the main body of the stream, are taken in great numbers. During the salmon season the Indians congregate at this place in numbers amounting to several hundreds.

Forty miles above this fishery is that of the Dalles. Besides the main channel of the river at this place, there are several smaller canals only a few feet wide, through which the water passes when the river is high, which occurs during the salmon season. When the flood is at its greatest height, the water in them is

about three feet from the top of the flat rocks between which it flows. Upon these the Indians stand, and by means of hooks and spears, take great numbers of salmon, as they attempt to pass on their way up. The method pursued by the Indians for this purpose, does not materially differ from that made use of at the Wilhamette Falls, except that the character of the canals renders planks to stand upon unnecessary.

The fishing season commences in May, and ends in October, during which time, the men do nothing else. As soon as the fish are taken, they are laid in the hot sun upon the rocks, that their skins may be more readily removed. This operation is performed by the "*clotchmen*" (women), who also remove the bones, and by pounding, reduce the fish to fine particles which are then spread upon mats, and dried in the sun for consumption during the winter. The heads, liver, heart, and offal are roasted and used for the supply of their present necessities.

At the close of the fishing season the Indians, who have congregated about the Dalles, retire to their villages, where they spend the remainder of the year in comparative inactivity; excepting, perhaps, an occasional marauding enterprise against their neighbors. Although the country abounds in wild fruits, and also in bear, elk, and deer, yet such is the laziness and improvidence of the natives, that they are not unfrequently upon the very verge of starvation between the close of one fishing season and the commencement of another.

Another important salmon fishery is at John Day's river, where great numbers are taken with spears and hooks.

The last important fishery which I shall notice is

that at the Kettle Falls on the Columbia, near Fort Colville. Here the Indians stand upon the margin of the foaming and boiling pools with their spears in their hands, intently watching for the fish, which, being seen, is with an unerring dart instantly killed. There is an Indian village in the vicinity of these falls, inhabited by a tribe called the *Quiarlpi*, or Basket People, from a method which is used for taking fish at this place. A large wicker basket is supported upon long poles inserted in the rocks. The poles are formed into a sort of broad frame, to the lower part of which, the basket is joined. Against this frame the fish, in attempting to leap over the falls, strike, and fall into the basket. This is raised two or three times in each twenty-four hours, for the purpose of taking out the fish, which frequently number three hundred. A division is made among not only each family of the *Quiarlpi*, but also among those of such other tribes as may be transiently at the place for the purpose of taking fish. Almost all the salmon that succeed in passing the lower fall are taken between the two, and none are taken above the upper one. The fish, when taken, are removed to large masses of quartz rock below the falls, when they are dried for winter use.

When the savages fish for the Hudson Bay Company, as soon as a cargo is caught, it is brought in canoes to the nearest trading post, where squaws are employed by the Company to cut up and prepare the fish for being put into vessels. The Indians after the number of fish has been ascertained, receive a ticket, which, at the close of the season, is exchanged for ammunition, baize, tobacco, cottons, beads, calicoes, blankets, etc.

After the head and backbone are removed, the fish are placed in a large hoghead with coarse salt, where they remain a few days, within which time they become firm. The pickle is then drawn off and boiled in a large copper kettle, and the blood which rises to the surface, in consequence of the boiling process, is removed, and the pickle left perfectly pure. The salmon are then packed in tierces, and laid upon their bilge, the bunghole being left up and open. Around this hole a circle of clay is next formed, and into this the oil from the salmon rises. This oil is carefully removed. As the fish takes up the pickle, more is added, so as to keep the liquid up into this clay cup, and afford facilities for removing the ascending oil. When this ceases to rise, the process of pickling the salmon is complete, and the hole is immediately closed. When thus prepared they will keep for three years, and if the quality of the fish was originally good ; and they were fresh when put into salt, they possess a most rare excellence.