A JOURNEY TO THE ROCKY MOUNTAINS IN THE YEAR 1839

By F. A. WISLIZENUS, M. D.

Translated from the German, with a sketch of the author's life, by Frederick A. Wislizenus, Esq.

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SKETCH OF THE LIFE OF DR. WISLIZENUS

By Frederick A. Wislizenus, Esq.

DOLPH WISLIZENUS was born May 21, 1810, at Koenigsee, in Schwarzburg-Rudolstadt, a German principality of duodecimo proportions, which still exists as a sovereign, though humble member of the German Empire.

His father was a pastor in the Evangelical State Church. Both parents died of the epidemics that followed in the train of the retreat from Moscow, leaving three children of tender years, of whom Adolph was the youngest. The mother's brother, Dr. Hoffman, a young man just entering on his juristic career, thought it his duty to take charge of the orphans, in which view his betrothed heartily concurred. The couple never had children, save these three orphans, who became theirs in letter and spirit at the marriage. They cared for the children in their
youth, and loved them through life as their own. In return, these children, even when themselves nearing death, spoke of "uncle" and "aunt" with the reverence and affection attached by those who remember their parents according to the flesh to the name of "father" and of "mother."

Adolph prepared for the University at the Gymnasium at Rudolstadt, the capital of the principality. He was originally intended for the ministry, like his father. Fragments of the Hebrew acquired at the Gymnasium clung to him through life. But his bent was for the natural sciences, and he entered the neighboring University of Jena as a medical student. He studied successively at Goettingen and Tuebingen, till he fled for his life from Germany.

Those were probably the darkest days in Germany of the reaction which sought to extinguish the last spark of the outburst of that spirit of liberty and national unity which inspired throughout Germany the revolt against Napoleon's oppression in 1813. Nowhere was there a trace of popular government. Kings and scores of Kinglets exercised unquestioned arbitrary power. The apathetic masses uttered no protest. But among the educated classes not a few were filled with hot indignation, and some were ready to stake their lives in an effort for the liberation and unification of Germany. Many students at German universities belonged to the latter class. Among them Wislizenus took a decided stand, repeatedly representing his university at secret general councils.
The Holy Roman Empire had drawn its last gasp in Napoleon's day. Germany thereafter was a loose confederation of its sovereigns, whose representatives, or ambassadors, sat in permanent council (Bundesrath) at Frankfort on the Main, which might thus be called the capital of Germany.

The plan was conceived of seizing Frankfort, chasing off the representatives of royalty, and thus, as was hoped, striking a spark that would kindle fires of revolt throughout Germany. On the evening of April 3, 1833, a body of students assembled from various universities—Wislizenus among them—less than a hundred all told, surprised the Constables Watch and the Main Watch, two massive military buildings at either end of Frankfort's main street, die Zeile; disarmed the guards, seized the arms and munitions; rung the alarm bells, and summoned the citizens to rise. Only a handful joined them. Soldiers were rushed up, and in a few hours all was over.

The scheme seems fantastic, but it must be remembered that older heads had given it sanction; that the organization had ramifications throughout Germany; that the plan involved action at other places, of which no account can here be given. But granting the plan of these young men to have been chimerical, it still is true that they risked not only their future career but life itself under no other inspiration than love of liberty and of Fatherland. Such motives dignify failure. The student attack at Frankfort in 1833 was a logical forerunner of the popular
uprising of 1848. Wislizenus may have smiled in later years at his youthful dreams, but he never grew to be ashamed of them. Many years after, when improvising at the piano at twilight, as he loved to do, he would occasionally break into a stirring song, and tell the inquiring listener with a smile that did not wholly conceal pride: "That's one of our songs in 1833!"

Some of the students were caught. Several of them were condemned to death, though none were executed. Several, however, went mad in confinement, and others were so crushed by dungeon life that they never recovered. Yet most of the students escaped through the aid of sympathizing friends, of whom there was no lack. Wislizenus used a pass in the name of Hoefling. The trying moments of his flight were when he couldn't recall his assumed name on being suddenly roused from sleep by an official; and again when he had to leave the coach abruptly, as the yellow dye, applied to make him resemble the Hoefling described in the pass, ran down from his jet black hair.

He reached Strassburg in safety, and thence went to the University of Zurich, where several of his German professors, such as Schoenlein and Oken, honored for their deep learning, and endeared to him by their political sympathies, had preceded him. At Zurich he took his degree as doctor of medicine, and, after spending some time in Paris hospitals, came to New York in 1835.
In 1836 he moved to Mascoutah, St. Clair County, Illinois, not far from St. Louis, where he found much congenial company. German University men who were political refugees, like himself, with their families and relatives, were settling in St. Clair County in large numbers. Their inexperience in the un wonted task of cultivating the soil led to their being called by their less educated neighbors, somewhat jeeringly, "Die Lateiner" (the Latins). But as a class they succeeded, and have left their impress to this day on the community. Here Dr. Wislizenus practiced as a country physician for three years; and then used his modest savings for the trip to the Rocky Mountains of which he wrote in German the sketches which follow in translation.

Upon his return he entered into partnership with Dr. George Engelmann for the practice of medicine in St. Louis. There subsisted between these two men, till death parted their company, a friendship of which only strong characters are capable. Wislizenus devoted himself to his practice till 1846, when he could not resist the longing for further explorations. He joined the expedition of a merchant (Speyer) to Santa Fe. This time he was better provided than on his excursion to the Rocky Mountains. He had the help of a servant; and in his wagon he not only carried an adequate scientific outfit, but also brought back valuable collections. From Santa Fe he pushed on to Chihuahua. By this time the war between the United States and Mexico was on in earnest. Wisl-
zenus was attacked by a mob in his hotel, and rescued by the Governor of the State, who sent him with some other Americans to Cosihuiria, a little town in the mountains about ninety miles west of Chihuahua. He was permitted, on parole, to wander during the day not more than two leagues from the town. During this enforced stay he was indefatigable in gathering scientific information on various topics. After six months, American victories brought liberty to the prisoners at Cosihuiria. They left for Chihuahua—no one saying them nay—and there found Doniphan's Missouri Regiment. Wislizenus received an appointment as surgeon, and on the journey toward home made such scientific investigations as his medical duties permitted.

Among those who were interested in his trip was Senator Benton of Missouri. At his instance the United States Senate printed five thousand copies of Wislizenus' journal, together with accompanying tables and maps. The scientific interest of the publication is further enhanced by Dr. Engelmann's report on the flora of the trip, based on specimens collected by Dr. Wislizenus. A great part of the trip had been through territory which had no prior scientific exploration. Much of the scientific investigations reported in this "Tour through Northern Mexico" has been superseded by later work in detail; but such subsequent work has served to emphasize the reliability of this first observer. Humboldt speaks apprecia-
tively of the value of this publication in his "Views of Nature."

Early in 1848 Dr. Wislizenus went to Washington, supposably in connection with the publication of his book, and made a prolonged stay there. With much leisure on his hands, he not only frequented scientific circles, but also participated in social life. He was a constant visitor at the house of George P. Marsh, then member of the House of Representatives from Vermont; and paid court, unsuccessful at the time, to Mrs. Marsh's sister, Lucy Crane. He returned to St. Louis in time to discharge the full duty of a physician in the terrible cholera epidemic of that year.

In the spring of 1850 Dr. Wislizenus left St. Louis on another trip. This time he did not go to the west; nor were scientific interests uppermost in his mind.

Upon the success of the Whigs in the election of 1848, Mr. Marsh had been appointed our Minister to Turkey. After a leisurely trip through Europe, he had arrived at Constantinople with his wife and his sister-in-law in February, 1850. There Dr. Wislizenus presented himself and was successful in his wooing. His marriage to Lucy Crane took place at the Embassy in Constantinople on July 23, 1850.

The wedding journey went up the Danube, and led to Wislizenus' old home in Germany, Schwarzburg-Rudolstadt; for his gracious native prince had courteously sent him unofficial information that
nothing would stand in the way of his visit to the country of his birth.

After the birth of his first child, Wislizenus left his wife with relatives in New England, and went to California, via Panama, with a view to possible settlement there. He was much impressed with the great future of the country, prophesying that it would be famous for fruit long after gold was exhausted; but whatever temptations he might have felt as a bachelor, he saw that the country in its then condition was not a desirable home for a civilized family. He accordingly returned east, and brought his family to St. Louis in the spring of 1852. His days of wandering were over. For the rest of his life he never went more than a hundred miles from St. Louis, and that only for a few days at any one time.

But his interest in matters of natural science did not end with his travels. He was one of the charter members of the Academy of Science of St. Louis; regular in attendance as long as health permitted; and a frequent contributor of articles published in its "Transactions."

He was also a member of the Missouri Historical Society, being one of the signers of the call for the meeting at which the Society was organized in 1866.

He became much interested in the subject of atmospheric electricity. With a sensitive instrument he tested the air six times each day for the kind and amount of its electricity, supplementing this work by
the usual meteorological observations as to temperature, moisture, and wind. This he continued till failing eyesight made it impossible. Little was being done in that direction at the time; and his results, showing a diurnal, annual, and even cyclic periodicity, have acknowledged scientific value.

The failing eyesight which put a stop to his electrical observations and also to his medical practice, culminated in a total blindness, covering several years preceding his death. Fortunately there was no lack of willing readers to feed his active mind. He passed away peacefully September 23, 1889, with wife and children around him.
Ein Ausflug
nach den
Felsen-Gebirgen
im Jahre 1839.

von

F. A. Wislizenus, M. D.

St. Louis, Mo.,
1840.
To sit on rocks, to muse o'er flood and fell,
To slowly trace the forest's shady scene,
Where things, that own not man's dominion, dwell,
And mortal foot hath ne'er, or rarely been;
To climb the trackless mountain all unseen,
With the wild flock, that never needs a fold.
Alone o'er steeps and foaming falls to lean;
This is not solitude, 't is but to hold
Converse with Nature's charms, and view her stores unroll'd.

CHILDE HAROLD'S PILGRIMAGE.
A JOURNEY TO THE ROCKY MOUNTAINS IN 1839

CHAPTER ONE

A GEOGRAPHICAL AND HISTORICAL SURVEY

THE whole territory of the United States of North America from the Atlantic to the Pacific ocean is divisible into two great sections, the eastern and the western. The eastern, which we may also call the cultivated part of the United States, is bounded on the east by the Atlantic ocean, on the south by the Gulf of Mexico, on the north by the British Possessions in North America, and on the west by a line coinciding with civilization's ceaseless westward progress, stretching out from year to year, a line which I would call the boundary of civilization of the United States. This line now about corre-
sponds with the western boundary of the territories, Wisconsin and Iowa, and of the states, Missouri, Arkansas and Louisiana. The other, the western section of the United States, extends from this boundary of civilization to the coasts of the Pacific. On the south, merely to give general indications, it is separated from Texas by the Sabine River, and from Mexico by a line running along the south bank of the Arkansas in its upper course to its source in latitude 42°, and with that parallel westward to the Pacific ocean. Toward the north this section bounds on the British Possessions. But the northern boundary has been fixed by the treaties of 1818 with England, only so far as concerns the part east of the Rocky Mountains, as running on the 49th parallel from the Lake of the Woods westwardly to the Rockies. Beyond these mountains to the Pacific Ocean the United States claim to the Russian Possessions in latitude 54° 10' north by reason of discoveries and ancient treaties. By provisional arrangement, England shares with us the possession of this region, leaving the dispute unsettled. The western portion of the United States, which alone concerns us here, is divided into territories: on this side of the Rockies we have the Northwest Territory, Missouri Territory, Arkansas Territory; while all beyond to the Pacific Ocean is covered by the general name of Oregon Territory. Only along the border of this western section, which in circumference and area is equal to the eastern section, if not greater than it, has civilization struck any
roots. That is to say, along the boundary of civiliza-
tion live various peaceful Indian tribes that have
in part accommodated themselves to agriculture, and
on the other side, on the Columbia River, near the
Pacific Ocean, several, as yet quite unimportant set-
tlements have been made by Americans and English-
men. The area between these extremes as yet no
plow has touched; no homely roof of the settler in-
vites the traveler to rest. The roving Indian alone
here puts up his portable tent, and moves daily on
with his faithful companion, the buffalo, who, like
himself, retreats before the "pale faces." The char-
acter of the country favors the hunter's life of these
savage bands, and interposes great obstacles to the
advance of the settler. For this enormous stretch of
country is really only one huge prairie, rolling on in
wave-like hills and broad plateaus, plentifully tra-
versed, it is true, by brooks and rivers, but so scantily
provided with wood, that even the mere traveler can-
ot always find the necessary firewood, but must take
dried buffalo dung as an inadequate substitute. From
north to south this prairie is crossed by the lofty
mountain chain which traverses all western America
in the direction just mentioned, bearing various names
in the different countries it crosses, but known in
North America under the general name of Rocky
Mountains, and in South America as the Andes. Out
of these mountains, whose peaks are covered with
everlasting ice and snow, issue the streams which
traverse this wilderness, and send their waters to
and Historical Survey

either ocean, the Atlantic and the Pacific. So, in the northeast of this region arises the Missouri with its tributaries, the Yellowstone and the Platte; in the southeast the Green River (Colorado of the West), which empties into the Gulf of California. Toward the west the Columbia has its source, discharging itself into the Pacific Ocean, affording incalculable advantages for commerce. This short geographical survey makes evident the importance of the region in commercial aspects. If we further consider that the country abounds in beavers, and that trading with the Indians is a source of great profit, it need not surprise us that in spite of all obstacles which ignorance of the country, hostile Indians, difficulties of transportation, hunger and thirst oppose to a journey into this region, an enterprising people, such as are the Americans, have turned their attention from an early date in this direction, and have known how to conquer all difficulties with persevering courage.

The first trips of discovery to this Far West are so closely connected with the history of the North American fur trade, that it becomes necessary to refer to it briefly. Even in former centuries, when the eastern coast of North America first began to be peopled, and when the country beyond the Alleghenies abounded in Indians and buffalo, fur trading and bartering with the Indians proved a veritable gold mine. The Canadians, at that time under French rule, especially distinguished themselves in this kind of commerce. The Canadian fur traders boldly
pushed into and penetrated a wilderness into which no European had theretofore set foot. Their buoyant French temperament enabled them to make themselves popular even among wild Indian tribes; and so they became pioneers of civilization. Among the trading companies organized for this purpose two are especially prominent, their history running down to our day, namely: the Hudson's Bay Company, chartered by Charles II in 1670, whose headquarters were then in New York, and the North West Company, established at Montreal in 1783. These two rival companies carried on their trade chiefly on the Great Lakes, and later descended from there into the Mississippi Valley. The country further west was as yet unknown. The first fragmentary information about this country we find in the travels of Jonathan Carver of Connecticut, who, about the year 1763, was among the Indians on the Upper Mississippi. He mentions a River Oregon or the River of the West (Columbia). This information he probably received through Indians. The word "Oregon" seems to date from this, its first mention. The first traveler who reached the Pacific Coast by going westward was Sir Alexander Mackenzie, a former British officer. He crossed the Rocky Mountains for the first time in 1793, at 52° 20' 48" north latitude, and reached the Pacific Ocean in what is now Caledonia, between latitude 52° and 55°, and consequently north of the Columbia River. Soon thereafter the North West Company erected, on the Pacific Coast, in the region mentioned, two
trading posts. In the year 1803 the Government of the United States, recognizing the importance of these western possessions, sent an expedition under Lewis and Clark across the Rocky Mountains to explore this country, and to take possession thereof in the name of the United States. Lewis and Clark ascended the Missouri to its sources; then, battling with many hardships, crossed the Rocky Mountains; reached on the other side the sources of the Columbia, and finally—following that river—the Pacific. With the change in political affairs in North America, the two chief trading companies, the Hudson’s Bay Company and the North West Company, had passed into the hands of the English, and steadily maintained their preponderance. But formidable opposition against them arose in 1810 at New York in the Pacific Fur Company, whose financial and intellectual head was John Jacob Astor, a German by birth. A detailed account of this undertaking, so tremendous for a private citizen, is found in Washington Irving’s classic, “Astoria.” For present purposes it is enough to know that the undertaking consisted of two contemporaneous expeditions, one by sea and one by land. The latter was entrusted to Wilson P. Hunt of New Jersey (now postmaster at St. Louis). Hunt ascended the Missouri to the village of the Arickaras, and thence continued overland in southwesterly direction. He reached the Rockies at the northwest corner of the Wind River Mountains, crossed the principal range, found on the further side the southern main
source of the Columbia, the Snake River, and after incredible sufferings, to which several of the party succumbed, reached the Columbia and the Pacific Ocean. At the same time a ship had been sent around Cape Horn to the Columbia River. It had arrived there, and a trading fort (Astoria) had been built near the mouth of the Columbia River. So far, the undertaking was crowned with success. But several mishaps, especially the faithlessness of one agent, wrecked everything. In 1812 the fort was treacherously sold by the agent to the North West Company, and shortly after, the English, then at war with the United States, took military possession. In 1818 the fort was formally surrendered to the United States, but the North West Company remained in the actual occupation of the country. Its only rival now was the Hudson’s Bay Company. For a time these two companies maintained a bloody feud, till finally, in 1821, they amalgamated into one trading company under the valuable franchises of the Hudson’s Bay Company. The new company has now drawn to itself all the trade on the Columbia and has actually expelled the United States from this part of its territory.

Such results were not encouraging for the people of the United States; but their spirit of enterprise soon showed itself afresh. In 1820 a new expedition, under Major Long, was sent by the Government of the United States up the Missouri River to explore the country. Private undertakings also were soon
organized. So in 1822, General Ashley of Missouri and Mr. Henry established a trading post on the Yellowstone, and made trips through the country on this side of the Rocky Mountains to the Green River. Beaver trapping promised most profit. A peculiar class of men, the trappers, who traversed the country in all directions, were developed by this business. Out of this school arose leaders for subsequent enterprises, such as Smith, Fitzpatrick, Bridger, Robert Campbell, William Sublette, etc., names well known to every mountaineer.

In 1830 two companies organized in St. Louis became active: the American Fur Company, which had been organized as far back as 1809, but had become dormant, and the Rocky Mountain Fur Company, founded by Sublette and Campbell. In 1832, two new rivals entered the field, viz.: Captain Bonneville, on behalf of a company in New York, and Captain Wyeth, from Boston. These four parties crossed the country on either side of the Rocky Mountains in every direction, save that the all-powerful Hudson’s Bay Company successfully excluded them from the Columbia River. Washington Irving has faithfully described in his “Rocky Mountains” the manner in which competition was carried on by these jealous rivals. Captains Wyeth and Bonneville disappeared from the scene after a few years, because their companies had sustained losses in the enterprise. The American and the Rocky Mountain Companies first came to a friendly agreement, whereunder each oc-
cupied a certain district for trading and trapping, and afterwards they amalgamated into a single company, which was carried on under the firm name of Chouteau, Pratte & Co. Several small companies were formed still later, which erected trading forts on the Missouri, on the North and South Platte, on the Arkansas and on the Green River; but none of them attained any marked preponderance.

While the knowledge of the country in general was much enlarged by the trading trips above described, much was also done in a scientific direction by men who had joined such expeditions on account of devotion to the natural sciences. So the well known naturalist, Nuttal, and the botanist, Bradbury, accompanied Hunt's Expedition to the point where it left the Missouri. In Long's Expedition there was Say, who has rendered such services to zoology. The Prince of Neuwied, too, so favorably known for his zeal for the natural sciences, undertook about this time a scientific trip up the Missouri. Finally, Captain Wyeth was accompanied by Nuttal and Townshend. Though these men accomplished much, often at great sacrifices, very much more remains to be done; for the country is rich in treasures for every branch of the natural sciences, and the difficulties and dangers of the journey alone have as yet prevented their exploitation.
CHAPTER TWO

THE DEPARTURE—THE CARAVAN

OME human beings, like birds of passage, are ill at ease when kept for a considerable length of time under the same sky. They consider all Nature one great family; the whole world their home. I will not decide whether or not I belong to this class; but I do know that from time to time an irresistible fever for wandering seizes me, and that I find no better remedy against the moods and crochets of hum-drum daily life than change of place and of air.

Chained for several years to an exacting medical practice, in which I had tasted to the full the sorrows and pleasures of the active physician, I felt the need of mental and physical recreation. An excursion to the cultivated part of the United States, through the greater part of which I had already traveled, suited neither my means nor my inclinations. The far West, with its wilderness and its aboriginals, was far more to my liking. Apart from the selfish purpose
of personal enjoyment, I had another in view; perhaps I might contribute something, in proportion to my limited knowledge in natural sciences and my narrow means, toward a better understanding of this region, where as yet our information in many respects partakes of the fabulous.

About the middle of April, 1839, I left St. Louis with this purpose. I went up the Missouri on the steamboat St. Peters to Chouteau's Landing. Our trip lasted six days, because the water was at a very low stage; and offered nothing of special interest. The border village, West Port, is six miles distant from Chouteau's Landing. There I intended to await the departure of this year's annual caravan. The village has perhaps thirty or forty houses, and is only a mile from the western border of the State of Missouri. It is the usual rendezvous for travelers to the Rocky Mountains, as is Independence, twelve miles distant, for those journeying to Santa Fe. I bought a horse and a mule, the former to ride, the latter for my baggage; and made other preparations necessary for my journey. On May 4th the different parties who were to join the expedition met for their first night camp at Sapling Grove, about eight miles from West Port. The way thitherward goes through the land of the Shawnees, peaceable Indians who have settled here. Some of them own valuable farms. Their manner of life shows a close approach to that of the white man. Some of them speak English. My first day's journey began under evil auspices, for I had not
yet learned to pack my mule. The usual way of doing it is this: The baggage is divided into two equal parts, each part firmly bound up, and hung by loops on either side of the yoke-shaped pack saddle. The whole is further fastened by the so-called "lash rope," of stout buffalo leather, which is first wound around the barrel of the animal, and then in diamond shaped turns as firmly as possible around the pack. My baggage weighed 150 to 200 pounds, a quite ordinary load for a mule; but I had not divided the burden properly, so that I had to repack repeatedly on the road. It was well toward evening when I reached the camp, where the others already had arrived. Our caravan was small. It consisted of only twenty-seven persons. Nine of them were in the service of the Fur Company of St. Louis (Chouteau, Pratte & Co.), and were to bring the merchandise to the yearly rendezvous on the Green River. Their leader was Mr. Harris, a mountaineer without special education, but with five sound senses, that he well knew how to use. All the rest joined the expedition as individuals. Among them were three missionaries, two of them accompanied by their wives, whom a Christian zeal for converting the heathen urged to the Columbia. Some others spoke of a permanent settlement on the Columbia; again, others intended to go to California, and so on. Almost all, however, were actuated by some commercial motive. The majority of the party were Americans; the rest consisted of French Canadians, a few Germans, and a Dane. The Fur Com-
pany transported its goods on two-wheeled carts, of which there were four, each drawn by two mules, and loaded with 800 to 900 pounds. The rest put their packs on mules or horses, of which there were fifty to sixty in the caravan. Our first camp, Sapling Grove, was in a little hickory wood, with fresh spring water. Our animals we turned loose to graze in the vicinity. To prevent them from straying far, either the two fore feet, or the forefoot and hindfoot of one side are bound together with so-called "hobbles." In order that they may easily be caught, they drag a long rope of buffalo leather (trail-rope). At night stakes (pickets) are driven into the earth at some distance from each other, and the animals are fastened to them by ropes. After we had attended to our animals, and had eaten our supper, we sprawled around a fire, and whiled away the evening with chatting and smoking; then wrapped ourselves in our woolen blankets,—the only bed one takes with one—and slept for the first time under our little tents, of which we had seven. At dawn, the leader rouses the camp with an inharmonious: "Get up! Get up! Get up!" Every one rises. The first care is for the animals. They are loosed from their pickets and allowed an hour for grazing. Meanwhile we prepare our breakfast, strike our tents, and prepare for the start. The animals are driven in again, packed and saddled. We move off in corpore. We proceed at a moderate pace, in front the leader with his carts, behind him in line long drawn out the mingled riders and pack animals. In
the early days of the journey we are apt to lead the pack animals by rope; later on, we leave them free, and drive them before us. At first packing causes novices much trouble on the way. Here the towering pack leans to one side; there it topples under the animal's belly. At one time the beast stands stock still with its swaying load; at another it rushes madly off, kicking out till it is free of its burden. But pauseless, like an army over its fallen, the train moves on. With bottled-up wrath the older men, with raging and swearing the younger ones, gather up their belongings, load the beasts afresh, and trot after the column. Toward noon a rest of an hour or two is made, if a suitable camp can be found, the chief requisites being fresh water, good grass, and sufficient wood. We unload the beasts to let them graze, and prepare a mid-day meal. Then we start off again, and march on till toward sunset. We set up the tents, prepare our meal, lie around the fire, and then, wrapped in our woolen blankets, commit ourselves to our fate till the next morning. In this way twenty to twenty-five miles are covered daily. The only food the animals get is grass. For ourselves, we take with us for the first week some provisions, such as ham, ship-biscuit, tea and coffee. Afterwards, we depend on hunting. Such are the daily doings of the caravan.
CHAPTER THREE

JOURNEY TO THE KANZAS RIVER—
THE KANZAS INDIANS

In the first days our journey was straight west. The first day we marched over the broad Santa Fe road, beaten out by the caravans. Then leaving it to our left we took a narrow wagon road, established by former journeys to the Rocky Mountains, but often so indistinctly traced, that our leader at times lost it, and simply followed the general direction. Our way led through prairie with many undulating hills of good soil. The region is watered with a few brooks and rivulets, along whose banks there is usually a narrow strip of deciduous timber. On the prairie itself there is no wood. Several times we had to content ourselves with muddy standing water; but usually we found pleasant, even romantic camping places on clear brooks. We saw no large game as yet. A few prairie chicken was all that we shot. However, a weather-worn buffalo skull and the antlers of an elk, which we found, re-
minded us of the time when these denizens of the wilderness had dwelt here.

On the fifth day after our start we reached the Kanzas, or, as it is commonly called, Ka River, not deep, but rather broad and swift. Its course is from west to east, and it empties close by the border of the State of Missouri into the river of the same name. We were about a hundred miles above its mouth. To cross us over a canoe had been sent up the river from its mouth, but it had not as yet arrived. So we camped in the meanwhile on an elevation near the river. Some miles from us, on the same side of the river, was a village of the Kas, or Kanzas Indians; across the river, somewhat farther off, were two villages of the same tribe. Near the first village there is a trading house, a smithy, and a Methodist mission. The Kas formerly lived forty miles to the west; but in 1826, in pursuance of treaties, the United States Government assigned them the district which they now inhabit; and has set apart for them for twenty years the annual sum of $3,500.00, which is given them principally in kind. The whole tribe is said to number at present 1,500 souls. The attempt to civilize the Kas and lead them to agriculture as yet has had little success. The Government has sent them some mechanics, has established a sort of model farm, and furnishes them yearly a number of cattle and swine. But they usually burn the fencing of the farm in winter and slaughter the animals. In other respects, they live, like the rest of the Indians, from
hunting; and as their country, though containing some
deer, and elk, has no buffalo, they go twice a year
some hundreds of miles away on a buffalo hunt, and
bring the dried meat back with them. A tendency
toward civilization, on the other hand, is indicated
by their permanent residence in villages. While all
wild Indian tribes know no other shelter than their
lodges, the Kas have already built villages of perma-
nent houses, in which they spend a great part of the
year. They thus form a transition from the agricul-
tural Indians dwelling along the border of the United
States and the untamed hunting hordes of the Far
West.

We had scarcely arrived at the Ka River when the
Indians came to our camp; but only a few, for most
of them were off on a buffalo hunt. Their clothing
was such as is customary with Indians. Some of them
had only an apron around the loins; but most also
wrapped themselves in a buffalo robe or woolen
blanket. Some in addition wore leather leggings.
Almost all wore moccasins. The chief garment of
the women is a leather overshirt reaching from breast
to knee, in addition to which they usually wear draw-
ers and mocassins, with a woolen blanket, preferably
of gaudy colors. Like all Indians, they are fond of
painting themselves with vermillion. A red ring
around the eyes is considered particularly becoming.
To the dressing of the hair the men give more care
than the women. While the latter simply part their
raven black straight hair, push it back of the ears, and
let it hang down behind, the men seek to train theirs in all possible ways. Sometimes they shave away all the hair save a long lock on top; again, they let it grow long, and plait it into a braid; sometimes they shave the hair on either side, and leave in the middle a helmet-shaped comb. The last named style seems especially in fashion with the Kas. Both sexes also adorn themselves with all possible ornaments of beads, coral, brassware, feathers, ribbons, gaudy rags, etc. When lacking ornaments, they often daub the head with clay. The Kas who came to our camp behaved very peaceably. They brought some hides, especially tanned deer hides, for sale, and bartered them for knives and other trifles. Some of them wanted money, and offered the hides for a dollar a piece. But they cared most for flour and bacon, for they were starved out. At night, we set guards for the first time, for although the Ka Indians have committed of late no hostilities against the whites, they do not scruple to steal horses from them when they can do it unpunished. The night was divided into three watches. Two or three men were always on watch together. As the canoe had not arrived the next morning, I made a side trip to the nearest village. The village is on the right of the river, on an elevation from which one can enjoy a pleasant and wide view. From a distance it is not unlike a mass of great mole hills. In the village itself no living being was to be found. The greater part of the inhabitants were hunting buffalo. The rest had gone to our
camp. As the houses have neither lock nor bar, I could survey them, inside and out, at leisure. The whole village consists of fifty to sixty huts, built, all in one style, in four somewhat irregular rows. The structure is very simple. On a round, arched frame of poles and bark, earth is placed with grass or reeds; at the top, in the middle, an opening is left for light and smoke; in front, at the ground, a similar opening as an entrance; and the shanty is finished. At the open door there is usually a reed-covered passage, extending a few steps into the street. There are about twelve cut braces inside the house; the fireplace is under the opening in the roof; at the side are some bunks of plaited strips of wood. The whole is rather spacious.

The canoe arrived the same day. The wind had been adverse. The next morning we crossed the river. All our baggage was brought over in the canoe; the carts were driven over empty; the animals were driven or ridden through. Everything went smoothly but for the breaking of an axle; that had to be mended. The Indians visited us again, and received some presents, especially tobacco, for which they were very eager. Without further interruption we continued our journey.
CHAPTER FOUR
JOURNEY FROM THE KANZAS TO THE PLATTE—THE ELK—THE ANTELOPE

E turned from the Ka River on our left, and took a more northwesterly direction. We passed two more villages of the Kas, built in the same way, and deserted, as were the others. The weather heretofore had been very favorable, but from now on we had frequent thunderstorms, alternating with a keen north wind. Our baggage was often so soaked that we had to sleep in wet blankets, and get up in the morning as from a cold bath. Nevertheless, we all continued in health. The country through which we go is still the same rolling, treeless prairie, wearying to the beholder's eye. Now that we are penetrating deeper into the country, we observe more caution than hitherto. At evening we form our camp in a square; at night we tie our animals in its midst; and regularly mount guard. On May 14th we came to the Rush River; on the 19th
to the Blue River. Both are rapid streamlets, uniting somewhat farther down as the Big Blue River, which empties into the Kanzas. Game becomes more plentiful. At times we saw deer, and also some wolves. At Rush River one of our hunters (we have two hunters in our company who daily go out hunting) shot an elk cow. As this noble animal, which was formerly at home in the greater part of the United States, is known to the younger generation only by description, it may not be amiss to devote some words to it.

The elk (*Cervus Canadensis*) bears resemblance to the European deer. It attains the size of a mule or small horse. The antlers, borne only by the male, grow to a height of four or five feet, and often have twenty to thirty tines. The antlers are shed from February to August. The hair is bluish gray in the fall, dark gray during the winter, and reddish brown in spring and summer. The elk is very skittish and has a keen sense of smell; but is also very curious. He must see the object of his fears, and often runs directly toward the hunter whom he has only scented. But as soon as he sees him, he stares at him a moment; then, with antlers thrown back and head held high, he rushes away like an arrow. In August and September, the pairing season, there are fierce encounters between the bucks. It is then most unadvisable to approach an elk that is merely wounded; for he will defend himself to the bitter end with antler and hoof, and even assume the offensive. In May
and June the cow brings forth one or two young. The
elks live on both sides of the Rocky Mountains, usu-
ally in herds of twenty or thirty, but also of hun-
dreds, and even thousands. Their meat has in taste
most resemblance to beef; but is inferior to buffalo
meat.

On our way to the Blue River we came across an-
other not less interesting inhabitant of the wilderness,
the fleet antelope (*Antelope Americana*, Ord—
Prong-horned Antelope, Sab.—wild goat.) This
beautiful swift animal is of the size of our German
domestic goat, but of more slender and elegant build.
Its heavy, thick, smooth hair is yellowish-brown on
neck, back and feet. On the flanks it shades to whit-
ish. The belly and breast are entirely white. The
hair at the back of the head is somewhat longer and
blackish. The tail is short and white on its underside,
as is the deer’s. The bucks have roundish horns, turn-
ing backward and inward, with only one short tine.
These horns are often a foot long. The females have
shorter horns, and instead of the tine, several knobs.
The fleetness of the antelope excels the speed of a race
horse. They have excellent vision and keen scent, and
are very skittish. With such characteristics it would
seem almost impossible to get at them; but they have
another quality, which commonly seals their fate—
boundless curiosity. It is hard to stalk them. At
first sight they run away; but if the hunter lies quietly
down, elevating a hat, a bright colored cloth, or even
an arm or leg, curiosity will bring them back. They
approach, run away again, and repeat the performance till they come within range. For this reason hunters for antelope prefer red shirts. Loud colors stimulate their curiosity. Antelopes are fond of elevations from which they have a wide view. On the plains the Indians hunt them at times in a sort of round-up; or else drive them into a fencing made of bushes, wide at first but gradually contracting, till it leads to a swamp or some sort of enclosure, where they can easily be killed. Under all circumstances hunting antelope requires more than ordinary skill and care. Antelopes usually live together in small herds of from ten to thirty. On this side of the Rocky Mountains they are much more common than beyond them. The meat is rather tender, but lean and dry.

We marched two days along the Blue River without following its windings. We now repeatedly crossed plateaus. They can be compared with nothing more fittingly than with the sea. Round about, to the horizon, one sees nothing but grass and sky; no bush, no creek relieves the eye from the wearying prospect. Only an antelope at times flits by. Any other moving body causes suspicion rather than pleasure. On May 21st, we saw in the distance such suspicious figures. Our spy-glasses were put in requisition; but the objects were too far off for us definitely to decide whether they were elk, horses or mounted men. Some hours later the point was settled. They were five Delawares returning from beaver trapping on the Missouri. The Delawares are a tribe friendly
to the whites. They live on the western border of
the State of Missouri, and in part practice agriculture,
but often make excursions into the country of their
red brethren, and are there feared for their fearlessness
and their superior armament with guns. These
Delawares had shot an elk, which they shared with
us, receiving some flour in return.

The next day we crossed the so-called "Pawnee
trails," a broad road made by the Pawnees, a quite
hostile Indian tribe, in whose vicinity we now are.
Indian roads are usually recognizable by the marks of
their tent poles, fastened at one end on either side of
their pack horses, and trailing on the ground with the
other. On either side of the Pawnee trails there were
vestiges of a great summer encampment. For in the
summer the Indians find it often too cumbersome to
carry their tents of skins with them, and so make at
every place where they camp so-called summer tents.
For this the squaws cut tree branches and wands, put
them into the ground in semi-circle, and cover this
little natural tent with a blanket or a hide. Several
hundred such tents were here in the vicinity. At
evening we camped for the last time near the Blue
River. We had had a north wind all day long, but
at evening the wind changed to the west, and a ter-
rible storm arose. The gale upset all our tents, and
the rain poured down in torrents. All we could op-
pose to the elements was stoic equanimity. We
wrapped ourselves in our blankets till the storm
passed, and then stretched out around a fire. The
next morning was pleasant. We were still twenty-five miles from the Platte. The road thither again went over a plateau on which no water could be found; but the rain, which had yesterday so incommenced us, had left some puddles behind, which today refreshed us and our animals. In the afternoon we reached a chain of small hills, from which we enjoyed a view of the Platte. At evening we camped on that stream.
THE Platte has its sources on the eastern slope of the Rocky Mountains, and has two main branches (North and South Fork), which, on their union, flow in an easterly direction toward the Missouri. A short distance below the meeting point the river divides afresh, and forms a great long island. At this island we reached the Platte. The river, of which we saw but a small part, is not broad at this point, with sparse borders of cottonwood (Populus Canadensis). The river valley is a mile or two broad on either side, and bounded by small hills (bluffs). The river is shallow, but carries so much sand that one may sink in the quicksands. The very valley is covered with pure river sand. Vegetation seemed here not to have advanced as far as in the prairie; but even at this point can be found the buffalo grass (Sessleria Dactyloides), a very short, delicate grass, growing in isolated bunches, preferred by
the buffalo to every other kind, and also much appreciated by our animals. It grows only in sandy soil. We ascended the right bank of the river for six days. On the second day a lot of Indians encamped opposite us across the river. We thought them Pawnees, and expected a nocturnal visit from them, as they are notorious horse thieves, but were spared the infliction, probably because they thought the river too dangerous, or else because we were too watchful. The next morning they had disappeared. We now saw game daily, especially antelope, of which our hunters shot one. Many water birds were also about. The birds we had seen hitherto consisted chiefly of prairie chicken, lark, snipe, and a small kind of starling that was continuously swarming around us, and was so tame that it would at times sit on our pack animals while on the march. Here we got sight chiefly of water birds, such as ducks, geese, cranes, pelicans, gulls, and some very large kinds of snipe. We saw daily more marks of buffalo. Especially we saw many buffalo skulls, whose horns are always carefully turned by the Indians toward the west. The Indians believe that they thereby secure good luck on the buffalo hunt, and call it "Medicine," with which they designate everything great or wonderful to which they attribute secret influences. Dried buffalo dung, which we now find quite frequently, we now use occasionally for fuel, when absolutely no wood can be found. It burns tolerably well, but makes rather a glowing than flaming fire, adequate for cooking, but small comfort.
in severe cold—and the weather seems to be no more favorable than formerly. We have penetrating cold and thunderstorms in alternation. On the fifth day we came to a burial place where two Americans are interred—one, while drunk, shot the other and then himself. The incident happened several years ago; a simple stake marks the sad spot. On the seventh day we reached the junction of the north and south arms of the Platte. The bluffs, like the wings of a stage, on either side, had now become more interesting. I climbed one of the highest points to enjoy the view. The sandy hills are cut by many gulches, and so irregularly thrown together that in comparison to the prairie they may be even deemed romantic. Arriving at the top I found considerable strong "medicine." Thirty buffalo skulls, adorned with all kinds of gewgaws, lay before me in a magic circle, as cunningly arranged as "Caspar" in the "Freischuetz" could have done it. I felt no kind of call to break the charm, but took out my spy-glass to enjoy the view. Before me lay a great part of the river valley we had come over. I traced out the island along which we had passed, and the shallow, but broad and rapid, stream, whose northern and southern branches here unite at an acute angle. Opposite me were other bluffs; behind me the boundless prairie.

After I had enjoyed the fine sight to the full, I hurried back to my party. We now ascended the right bank of the South Fork, over which we were soon to cross. On the same day—it was the twenty-
sixth of our journey—we saw the first herd of buffalo. The rejoicing was general. The voyager at sea cannot long more for land than the traveler in that region for the buffalo; for only in the land of the buffalo is there comfort and superfluity. Anxiously the days are counted till one may expect the first buffalo. Every sign is investigated by which one may gauge their vicinity. Weight is attached even to dreams. Our first enthusiasm brought ruin to the careless herd; for twelve of them were immediately shot, and of most of them the tongue only was taken. The juicy, nourishing buffalo meat we all found more palatable than the lean flesh of the antelope. The next morning we went up river only ten miles, and camped there, preparatory to crossing the South Fork. As special boats, covered with buffalo hides, are constructed for that purpose, two parties were forthwith sent out to hunt, to procure the requisite buffalo hides. I joined one of these parties. But before we go on the hunt, let us consider more closely the noble game about to be hunted.
THE BUFFALO

The buffalo (Buffaloe, Bison, Bos Americanus) is of the size of an ordinary ox, though his ungainly shape and long shaggy hair make him seem larger. The hair is yellowish brown; on the head and at the extremities, blackish. The fore part of the body to back of the shoulder blades is covered with thick long tufts. On the forehead the hair is curled, and so thick that a bullet glances off. Two short, thick, black horns project from the tangle; below, half hidden by the tufts of hair, roll two black gleaming eyes. The face is curved somewhat convexly. The upper lip is very broad below. From the underlip to the knees hangs down a long terrible beard. The head is very large and heavy; the neck thick and strong. On the back rises a considerable hump, formed of the prolonged spinal processes, and the muscles and ligaments thereto attached. The prolongation of the spinal processes increases from the rear to the front. The front ones
are often twenty to twenty-four inches long. They are commonly called hump ribs. The rear part of the body is covered with shorter hair, which is like satin in summer. The tail is short and bare, with a bunch of hair at its lower end. Differences in hair are quite rare; but it is claimed that at times white buffalo, or buffaloes with white spots have been seen. The cow differs from the bull in being of smaller size and in having shorter hair and weaker horns. The whole appearance of the buffalo is ungainly, and at first sight terrifying. His step is heavy; nevertheless he trots, gallops and runs to match a horse. His sense of smell is very keen. He scents man at a mile. It seems, too, that the smell of the white man alarms him more than that of the Indian. The pairing season of the buffalo lasts from the end of July to the beginning of September. At this time the bulls and cows form one herd. Later on, they separate. The cows graze together in separate more compact herds, while the bulls are more scattered. In April, the cows bring forth their calves, which usually run with them for a year. As to numbers, buffalo herds vary greatly. One finds herds of fifty to a hundred head, but also of a thousand, and of several thousands. Often many herds graze side by side and cover the country to such an extent that they are estimated not by the number of herds, but only by the miles they occupy. It is a grand sight when one of these bands suddenly gets the wind of some enemy, and, with an old bull in the lead, runs off at a lumbering gallop. The first band
throws itself on the second, carrying it along with it; this again on a third, and so on, till the whole herd, which was quietly grazing only a few moments before, rushes off in wild flight, seeming one great black mass in whirling clouds of dust. A fleeing band is irresistible. It blindly follows its leader; with him it hurls itself over precipices; it swims rivers after him; and even charges through the travelers' caravans, so that they must be shot in self defense, to keep them from the train. After some miles, if they are not pursued, they usually halt, and begin again to graze. As I said before, they prefer the short tender buffalo grass. It grows on loamy sandy soil, usually saturated with salts. Where a buffalo herd has grazed for some time the ground is absolutely bare; for what they do not eat is trampled with their ungainly feet. Their bellowing can often be heard for miles. It is deeper and more muffled than that of our cattle, and at a distance not unlike the grunting of a great herd of swine. To their watering places they form narrow paths, over which they leisurely move on, one behind the other. A buffalo region is crossed by such paths in every direction. Formerly the buffalo roamed over the greater part of the United States. Civilization has gradually driven them back. Their real home now is the immense prairie between the boundary of the States and the Rocky Mountains. In the mountains themselves, and beyond them, they are much rarer. But here, in spite of the fact that many thousands are yearly killed by whites and Indians,
their numbers are still incalculable. Should it, however, ever come to the extermination of these animals, then the whole of this country must necessarily assume some other shape; for to the inhabitant here the buffalo is more important than is his camel to the Arab. It supplies his prime necessities: food, dwelling and clothing.

The hunt for buffalo is one of the grandest and most interesting of which I know. The hunting is done either a-foot by stalking, or on horseback by running. In both cases one must seek to be on the windward, to get as near as possible. For stalking, a hilly country is most favorable; but it is possible to get within shooting distance on the plain, if one does not find it too troublesome to creep on hands and knees, often for a mile. Even if the buffaloes see the hunter at this unusual locomotion, they often let him get near enough to shoot, provided his motion is quiet and regular. At the first shot they usually run away; but at times, when they do not see the hunter, they simply become restless, and permit him several shots. A wounded buffalo attacks the hunter only when he approaches too close; but then he uses his horns as a terrible weapon. The best place to give a buffalo a deadly wound is behind the shoulder blades, where the thick coat of hair stops. Shots back of that through the body trouble him little. A bullet on the head either glances off from the thick hair and firm skull, or at best does not penetrate far. Rarely does a buffalo collapse at the first shot. Usually they drag
themselves along and remain standing on their feet to the last breath. In this respect the bulls show greater vitality than the cows. If the wound is near the backbone, they often fall down on the spot; but recover after a while and escape, often with the loss of the tongue or of some other piece of flesh that has been already cut out of them. Much more interesting than stalking is the hunt on horseback. This requires a skillful rider and a quick, well-trained horse. A good buffalo hunter prefers to ride without a saddle. He sticks one pistol in his belt, holds the other in his right hand, and starts off at top speed. He rushes into the midst of the fleeing herd, and for some minutes buffaloes and rider disappear in a thick cloud of dust. But suddenly he reappears at one side close behind a buffalo which he has picked for his prey and separated from the herd. The hunted animal exerts all its strength to escape its pursuer; but the emulous horse races with him, following all his turnings, almost without guidance by the bridle. Now he has overtaken him; he is racing close to his left side; but the buffalo turns sharply and the horse shoots past him. The race begins afresh. Again, the horse overtakes the buffalo; again they are running parallel, and the rider discharges his pistol point-blank in the buffalo's flank. He now gallops slowly after the exhausted animal, and, if necessary, gives him a second shot. Often the wounded animal turns upon the rider, who must then rely on the swiftness of his horse for safety. The cows are more agile than the bulls; swift-
er horses are therefore required in hunting them. The Indians usually hunt the buffalo on horseback in the way just described, with the difference that instead of firearms they commonly use bow and arrow. In full career they discharge their arrows with such accuracy and force that occasionally the arrow pierces the animal and wounds another one. When the Indians hunt buffalo in mass, as they do in winter for the hide, they use devices such as I have mentioned before with reference to hunting the antelope. Among other things, they sometimes drive them over steep cliffs, whereby whole herds are killed.

Buffalo meat tastes much better than beef. The meat of the cows is usually tenderer and fatter than that of the bulls, and particularly deserves the preference in summer, when the bulls are lean and unpalatable. From the slain buffalo only the best pieces are taken, namely, the tongue, the ribs, the hump ribs, the meat on either side of the backbone, and the marrow bones, with at times also the liver and kidney. Buffalo tongues are celebrated; in dried condition they are sent by thousands to the States; but the ribs, especially the hump ribs of a fat cow, are much finer. They are usually roasted on the spit, while other parts are better suited for boiling. The thigh-bones, or so-called marrow-bones, are thrown into the fire until they are roasted, and then cracked open, yielding the finest marrow that ever tickled a gourmand's palate. Considering the absence of bread, and the traveler's life in the open air and daily exercise, it is not re-
The Buffalo

remarkable that the appetite makes unusual demands, and that people, who formerly were accustomed to eat scarcely a pound of meat daily, can consume eight and ten times as much of fresh buffalo meat, without being gluttons on that account. With the abundance of buffalo such a healthy appetite can be satisfied without trouble. Only so much is shot daily as will last for a few days. But if the journey goes through a region where neither buffalo nor other game is to be found, the buffalo meat is dried as follows: The meat is cut in strips as thin as possible, and hung upon poles or scaffolds, and there allowed to dry in the sun. If time is limited, a little fire is at first maintained under it; but it tastes better without the fire. When it is dried, it is beaten with a stone or hammer to make it more tender. It is then eatable, either dry or cooked, and can be kept for years, if protected against moisture and insects. The so-called toro is still more suitable for preservation. For its preparation this dried meat is beaten with a stone into a coarse grained powder, and mixed with as much melted buffalo fat and tallow as it will hold. The paste thus formed is pressed as compactly as possible into a bag of buffalo skin, which is then firmly sewed up.

The whites use the buffalo chiefly for food. The green skins are too heavy, and their preparation too difficult to justify the trouble of carrying them off. The Indians, on the other hand, tan the hides and use them partly for their own dwelling and clothing, partly in barter with the whites. Tanning is the busi-
ness of the Indian women solely, and is carried on as follows: They first stretch the fresh hide with pegs on the ground, clean it with sharp stones of all flesh, fat and skinny parts, and finally rub in fresh buffalo brains. This latter gives the hides great pliancy, but is not a real tanning process. The hides thus prepared can therefore stand little moisture, and the hair falls out easily. The inner side of the hide thus prepared is usually adorned with all kinds of gaily colored figures. Hides that are to be tanned on both sides are boiled in a solution of brain. When the hair is removed, brain is again rubbed in; and finally the hides are smoked, which makes them very suitable for tents and clothing. In addition to the hide, the Indians never forget to take the strong sinews from the neck and back of the buffalo. They dry them, and use them, torn into threads, with aid of an awl, for sewing.

With these manifold uses which the Indian makes of the buffalo, it will not seem strange to us, that this animal is the beginning and end of all their religious ceremonials; that great buffalo hunts can only be begun with mysterious rites; that the brave Indian dies in the belief that he is going to a land full of buffalo; and that one chief ground of the hatred of the Indians for the whites consists in their dread that the buffalo herds will be driven away and destroyed. The Indian and the buffalo are Siamese twins; both live and thrive only on one ground, that of the wilderness. Both will perish together.
CHAPTER SEVEN

THE SIOUX—PASSAGE OF THE SOUTH FORK

Our hunting party consisted of only three men. We had ridden but a few miles, when we saw Indians in the distance, who had probably seen us long before. One of them galloped toward us. He had no clothing except an apron about the loins; and no arms except bow and arrows. We halted. The Indian gave us his hand in sign of friendship, and let us understand that a great Indian encampment was in the vicinity. Though the news was unwelcome, especially as we did not know to what tribe these Indians belonged, we continued our hunt. We soon saw buffalo, but they had been put into such turmoil by the Indians, who were hunting them, that it was a long time before we got a shot. From a hill I could survey the hunting of the Indians, and admire their skill as riders and as marksmen. Most of them were armed only with bow and arrow, though a few had guns. After we had ridden perhaps ten
miles, we were lucky enough to kill three head. The last one was a cow. For a while she looked on as we flayed a bull, but forfeited her life by her curiosity. She had a calf with her that took to flight. The cow's udder was full of milk. We sucked out the milk, and found it refreshing and palatable. Laden with the hides, we returned at evening to the camp, where in our absence the Indians had also arrived. We now learned that there was on the other side of the river about five miles up stream a camp or village of several tribes of Sioux (Shiennes, Brulés, Tetons, and Arapahoes) and of the Ogallallas. The Ogallallas and Sioux had formerly been at war; but had made peace shortly before this, and had united. The Indians who visited our camp had received small presents, especially tobacco; and, as the fur company still had some flour, had been regaled with sweetened mush, which was so much to their taste that, after satiating themselves to the full, they had taken the remainder with them. They also requested powder and whiskey, which was refused them on the pretext that we had no superfluity of the former, and nothing at all of the latter. Our leader, Harris, thoroughly realized that these unwelcome guests would further trouble us, and that just now was a most inadvisable time for crossing the river. So at night, after all the Indians had left, he caused the few barrels of spirits which he had with him to be buried, and enjoined on all of us the greatest vigilance. The night passed quietly. The next morning about sixty Indians on
horseback appeared on a little rise in the neighborhood of our camp. They rode in a line up to our camp, giving a salute in our honor out of as many guns as they could muster, and sat down with us in a semi-circle. All appeared in gala attire, decked as far as possible with ornaments and bright rags, and with their faces freshly painted. One of them wore a red English uniform, on which he prided himself not a little. They had three leaders with them. One of them delivered an address, which may have been very eloquent, but of which none of us understood a word. To judge by his gestures, however, he had taken the pale faces to his heart, and expected in return evidences of our appreciation thereof. The pipe of peace was of course not forgotten, but went around the circle several times. The Indians received tobacco, which was divided out among the warriors by these leaders, and were again regaled with sweetened mush. In the afternoon, a second party of Indians arrived a-foot, with two divers colored flags, on one of which a star was embroidered, and on the other a cock. The Indian who bore the former was painted red in the face; he who bore the other, wholly black. Speeches and smoking, presents and feeding were repeated. Toward evening our guests left us, seemingly satisfied with their reception. While this was going on in our camp the rest of the Indians had broken up their own camp, and had established themselves across the river just opposite to us. The whole shore became alive. The tents were erected in sev-
eral rows for about a mile along the river, and formed an interesting, though hardly agreeable, sight. The high, conical, leather tents with the projecting tent poles looked from a distance not unlike a sea-port. By our estimate there might be seven or eight hundred tents; later on, we heard that there were about a thousand. As each of them contained at least one family, we estimated the whole number at five to six thousand. Our situation was critical. Separated from such a crowd, eager for robbing and plundering, and so superior to us in numbers, merely by a river, whose passage offered no special difficulties, there remained for us, should it come to hostilities, nothing but quietly to allow ourselves to be robbed, perhaps even scalped, or else to defend ourselves to the utmost without any hope for success. True, the Indians who had visited our camp today had behaved pretty decently; but every Indian has sufficient self-control to conceal his real plans. Besides, the Sioux have repeatedly shown themselves treacherous. All we could do for the time was to shun all cause for hostilities, and quietly delay the crossing of the river until the Indians should leave us. For they had given out that they were going the next day from here to the North Fork.

Morning appeared, but the Indian camp had not budged. On the other hand, we received abundant visits in ours. The river was about a quarter of a mile broad; quite rapid to be sure, but generally not very deep, so that one could cross a-foot or on horse-
back without much swimming. Besides, the Indians had made a little canoe out of buffalo hides, on which they crossed. Many squaws paid us their respects today. As none of us understood the Indian language, we had to communicate by signs, wherein the Indians have great skill. We obtained by barter with them several articles, such as tanned skins, mocassins, buffalo hides and the like. For a piece of chewing tobacco as big as a hand one could get a fine buffalo hide. Some Indians would sell everything they had on. But all showed immense curiosity.

They were continuously about us in our tents; all objects that were new to them they stared at and handled, not failing to appropriate some when unobserved. The two wives of the Missionaries were special objects of their curiosity. Among the guests who visited us today there was a leader of the Ogallallas, Bullbear by name. He is rather aged and of squat, thick figure. He had one of his seven wives with him. Our leader knew him from former days as a friend of the whites, and so invited him to stay with his wife over night. Bullbear gave us to understand that he could answer for his tribe, but not for the others; and readily accepted. The other Indians toward evening went back over the river.

Mrs. Bullbear is not ugly, and knows how to accept the presents made to her with much grace. Her leather shirt is richly adorned with beads and embroidery. All night through matters were lively in the Indian camp. Dreadfully piercing notes came to
us over the water; and then a chorus of some thousand dogs howled such night music as I have never yet heard. The next morning we saw with pleasure how the Indians struck their tents, packed their horses and dogs, and gradually set themselves in motion toward the North Fork. We watched the march with our spy-glasses. The North Fork was only about three miles from us. The Indians crossed it, and set up their camp on the further shore. They also seemed to watch us, for they directed little mirrors toward us. Glad to be rid of our guests, we set in earnest about finishing the canoe at which we had hitherto worked but slowly. These canoes are made in the following manner: Small trunks of some wood that bends easily are split; out of these a boat-shaped frame-work is made with some cross-pieces inside; this is firmly bound with thongs of buffalo leather and willow bark, and all gaps are stopped with withes; and buffalo hides, sewed together, with the hair inside, are stretched as taut as can be over the whole. Then it is dried in the air, and the outside daubed over with a mixture of buffalo tallow and ashes. Our canoe was covered with three buffalo hides, and was about fifteen feet long by a width in the middle of five to six feet. It was finished toward evening, but we still spent the night here, to dig up the buried barrels of spirits. The next morning our canoe was put into the water. Though everything seemed quiet in the Indian camp, our leader preferred to cross the river somewhat further up. He detailed four men to draw
up the canoe along the shore. The rest of us marched about ten miles and camped again on the river. The canoe arrived too late for crossing that same day; but on the next day we finally accomplished our passage. The river was rather broad and swift, but deep in only few places. As far as walking was possible, the four men pulled the boat through the water; then paddles and poles are used, during which time we were often carried far down stream. Each passage to and fro took over an hour. First, all the baggage and the empty carts were carried over in the canoe; then the passengers; finally the horses and mules were driven through the water. Apart from some few mishaps, arousing more laughter than sympathy, all went well. In addition, we made ten miles that same day, going up the stream, and camping on it.
CHAPTER EIGHT

JOURNEY UP THE NORTH FORK—
THE PRAIRIE DOG—
FORT LARAMIE

The left bank of the southern Platte, which we are now ascending, is very sandy; the vegetation is scant. The bluffs close at hand are also of sandstone. A tower-like column of pure river sand rises in noticeable prominence. For some days we went up the river. We observed very many bitter herbs, especially wormwood; also Pomme Blanche (Psoralea esculenta), whose knobby root contains much starch, has a pleasant taste, and is gathered by the Indians. Long garlands of blooming wild roses frequently extended along the river. We saw no buffalo, but our hunters shot on the bluffs several antelope, so that we suffered no want. On the third day (June 6th) we left the river, going across a plateau in a northwesterly direction toward the North Fork. On this plateau we saw for the first time wild horses. They were very
skittish. Their sense of smell is said to be very keen. We also got sight of the European rabbit, which is not found in the eastern part of the United States. The day was very sultry. We covered eighteen miles before we found some water in a puddle. In the afternoon, while we were again on the march, we were overtaken by a terrible hailstorm. Some of the hailstones were as big as pigeon eggs. The horses on which we rode could hardly be held in check; but the pack animals ran away as if under the lash. The hailstorm lasted, with short interruptions, about half an hour. We then gathered up our pack animals, which had run miles in the meantime, and camped near Ash Creek, which empties into the North Fork. The next morning we reached the North Fork, but it was noon before we could find a passage for our carts. The North Fork with its surroundings is just like the South Fork—much sand, little wood, no buffalo. We are now to go up the right side of the river about one hundred and sixty miles to Fort Laramie. The next day we saw four Indians on the further bank. They swam over. They were Shiennes. They gave us to understand that their tribe had parted from the Sioux and would be here in a few days to go up the river with us. They urged us, therefore, to wait. Our leader acted as if he did not understand them, gave them some tobacco, and went on. The next day we received a second embassy, but with no better result. The bluffs of our side, on which I now saw for the first time some cedars, gradually diminished until
they were lost in the prairie. But behind them reddish cliffs arose, steeper and more imposing than we had yet seen. The sand formation prevails in them also. Several such rows of cliffs are crowded together en echelon, with a grassy embankment in front of each, flattening down at the end of the chain. Each chain consists of more or less broken down (weather worn) rocks, often presenting the strangest of shapes. So the first cliff in the first chain, perhaps eight miles from the river, presented quite the appearance of an old castle or citadel. More remarkable still is the last cliff of the same chain. Its tower-like top is seen from a distance of thirty or forty miles, for which reason it has been called the chimney. It is only a mile from the river. The cone-shaped base constitutes about three-fourths of its height, the pyramidal top one-quarter of it. The foundation is limestone; above it is crumbling sandstone. The height of the whole is given as 525 feet; that of the top part as 125 feet.

Heavy down-pourings of rain often interrupted our journey. Almost daily we had thunderstorms, for which the Platte is notorious. One time we had to stay in camp almost all day on account of the rain; but by way of compensation we found a quantity of pine wood and cedar wood, washed down from the rocks on which it grows sparsely; and beside the blazing fire we laughed at the weather and forgot all discomfort. The next day the sky cleared. We traveled somewhat away from the river, toward the
left, and enjoyed a picturesque landscape. All about were rocks piled up by Nature in merry mood, giving full scope to fancy in the variety of their shapes. Some were perfect cones; others flat round tops; others, owing to their crenulated projections, resembled fortresses; others, old castles, porticos, etc. Most of them were sparsely covered with pine and cedar. The scenery has obvious resemblance to several places in Saxon Switzerland.

At noon we halted in a little valley where rocks from either side confronted each other at a distance of half a mile. A fresh spring meanders through the valley. We encamped on the hill from which the spring flows. The place had something romantic about it. All around grew pine and cedars, wild roses, gooseberries and currants; from the top of the hill one enjoyed a wide prospect. On the one side the Chimney and the whole chain of rocks we had passed showed themselves; on the other side, fresh hills. Before us lay the Platte. The magnificent surroundings, the clear sky and fresh antelope meat put us all in good humor. But increasing sultriness reminded us soon that we had not yet received our daily allowance of thunder showers. We traveled twelve miles in the rain that afternoon, and camped by the stream, at whose spring we had our noon rest. It was so swollen by the rains that we had to postpone crossing till the next day. The next morning we crossed it, as well as Horse Creek, only a few hundred steps further on, and then turned, over a long uninteresting
hill, again toward the river. From the top of the hill we saw in the western distance the Black Hills, a chain of mountains we must cross later on.

Near the Platte I saw on this occasion for the first time a so-called prairie-dog village. Single dwellings of this strange animal we had already observed on the South Fork; but here we had a whole colony before us, and also got a look at some of the shy inhabitants. The prairie dog (prairie marmot, *Arctomys Ludovicianus*, Ord), resembles the hamster of Europe, and belongs to the same genus. He is sixteen inches long; the hair yellowish-brownish-reddish; the head broad; the ears short; the body stout, the hairy tail about two inches long. The five toes on each foot are of very unequal length. This animal digs itself holes underground. The earth thrown out forms toward the exterior a firm round wall. The funnel-shaped entrance is one or two hands broad. For a foot it runs perpendicularly down; then obliquely inward and downward. Such dwellings, at moderate space from each other, can be seen spread over an area of several acres, or even miles. That is called a village. Hundreds, even thousands of these animals live in this way neighborly together. In fair weather they come out of their holes to sun themselves; squat quaintly on their hind legs, and utter a sharp, twittering sound. At man’s approach they raise a fiercer cry, wagging their short tails withal, as if prepared for serious combat. If one comes nearer, however, they withdraw into their holes, at most
peeping out. Even if one shoots them, they fall back into their holes, and are not easily got out. In each hole several live together. Often six or eight can be seen retiring into one hole. The prairie dog lives on the seeds of several kinds of grass; but his dwelling is usually found in sandy regions, where grass grows scantily. He is found rather plentifully on either side of the Rocky Mountains. He sleeps through the winter, and so stuffs up the opening of his hole in the fall with grass. One often sees different animals creep into these holes, especially rattlesnakes, which are numberless in these regions, lizards, turtles, and a small kind of owl (*Stryx hypogaea, Bonap*). This *quodlibet* of animals cannot possibly constitute a friendly family; but Pike assures us that he has repeatedly seen a prairie dog, a horned frog and a turtle withdraw into the same hole. The owls and rattlesnakes seem to do most damage to the prairie dogs.

The North Platte, which we were now ascending, was here better supplied with wood than below, especially with cottonwood. We spent the night on its banks, in the neighborhood of an old winter camp. A number of cottonwood trees were lying about, which had been used partly for fencing, partly as fodder for the horses. (In winter the horses are fed with the bark of the tree.)

The next morning (June 14th), we left camp in good humor, for the crotchety master of human crotchets, I mean the weather, smiled on us; and the vi-
cinity of Fort Laramie, but sixteen miles distant, promised us a speedy meeting with human beings. Before we reached the fort, we encountered the first "pale faces" we had seen since our departure from Missouri. They were French Canadians, clad half Indian fashion in leather, and scurrying along on their ponies, bedight with bells and gay ribbons, as if intent to storm some battery. Old acquaintances greeted each other, question piled on question; and each briefly told, in Canadian patois, the adventures he had been through. Meanwhile we came in view of the fort.

At a distance it resembles a great blockhouse; and lies in a narrow valley, enclosed by grassy hills, near by the left bank of the Laramie, which empties into the North Platte about a mile below. Toward the west a fine background is formed by the Black Hills, a dark chain of mountains covered with evergreen trees. We crossed the Laramie toward noon, and encamped outside the fort. The fort itself first attracted my attention. It lies on a slight elevation, and is built in a rectangle of about eighty by a hundred feet. The outside is made of cottonwood logs, about fifteen feet high, hewed off, and wedged closely together. On three sides there are little towers on the wall that seem designed for watch and defense. In the middle a strong gate, built of blocks, constitutes the entrance. Within, little buildings with flat roofs are plastered all around against the wall, like swallows' nests. One is the store house; another the
smithy; the others are dwellings not unlike monks' cells. A special portion of the court yard is occupied by the so-called horse-pen, in which the horses are confined at night. The middle space is free, with a tall tree in it, on which the flag is raised on occasions of state. The whole garrison of the fort consists of only five men; four Frenchmen and a German. Some of them were married to Indian women, whose cleanliness and neat attire formed an agreeable contrast to the daughters of the wilderness whom we had hitherto seen. In this connection, let me call attention to a mistaken idea often entertained as to these forts. They are often thought of as military forts, occupied by regular troops, and under military rule, whereas they are mere trading forts, built by single trading companies, and occupied by a handful of hired men to have a safe point for storing their goods, from which barter may be carried on with the Indians. Such forts exist on both sides of the Rocky Mountains, established by American and English companies; but nowhere is there a military fort erected by the government of either country. The simple construction, as above described, protects them adequately against any attack on the part of the Indians. Out of abundant caution some of them have a little cannon on the wall. As far as I know, there is no fort on the North Platte save Fort Laramie; but several American trading companies have built forts along the South Platte, the Arkansas, the Green River, and the Missouri. Beyond the Rocky Mountains are only English forts.
Fort Laramie was built in 1835 by Robert Campbell, and was then called Fort William. Later, it passed into other control, and was rechristened Fort Laramie after one Laramie, who was killed here by the Indians. The custom of perpetuating the memory of departed friends by transferring their names to the place where they fell, is so habitual in the Rocky Mountains, and the occasions giving rise to it are unfortunately so frequent, that at least half the names owe their origin to such events. The fort is at present in possession of Piggitt, Papin and Jaudron. In many respects it has a very favorable location. There is sufficient wood in the vicinity and good pasture. A few days' journey further there is abundance of buffalo and other game, and the Platte from this point is navigable for small boats; at least Campbell has already gone down from here to the Missouri in buffalo boats. Then, too, it is a very suitable center for trade with important Indian tribes, especially the Sioux and Crows. The last named Indians had recently levied a small contribution from the fort, in that they had driven off sixteen horses grazing in the vicinity in full daylight and in view of two guards. Luckily the fort had a superfluity of horses, so that the loss was not serious. In addition to horses, the fort owns property that is of very great value in this region; that is, several cows. No attention is paid to agriculture, although the ground seems suitable for it. Hunting is the sole reliance for food. All we found in stock at that time was dried buffalo meat,
of which we took a supply with us. As we stayed there the rest of the day, several races took place between our horses and those of the fort; and of course there was betting and swapping of horses. I swapped my horse, which was somewhat run down by the journey and thin, for a swift, well fed Indian horse trained to hunt buffalo. The Indian horses are said to have come originally from Mexico. They are of a small breed, and seldom can be called handsome; but they are very swift and hardy, and as they know no food save grass, are much more suitable for such a journey than American horses, which usually grow lean on mere grass. Still American horses, because they are larger and handsomer, are much sought after by whites and Indians, and, when once they are acclimated, are superior.

The distance from the boundary of Missouri to Fort Laramie, according to our daily reckoning, amounts to 755 miles, and was made by us in six weeks. All distances here can of course only be approximated. For this purpose we repeatedly counted the steps made in a given time, and found our average rate to be three miles an hour.
CHAPTER NINE
JOURNEY OVER THE BLACK HILLS—CROSSING THE NORTH FORK

The next morning (June 15th), we left Fort Laramie to journey again in westerly direction through the wilderness. Our way led over the Black Hills above mentioned, leaving the Laramie River to our left, and ascending the North Fork at a moderate distance from it. The North Fork winds here through rocky walls so steep that the river is seldom in view, and there is no traveling on its banks. The hills consisted of sand and lime stone, and show here and there a pine or cedar. To the left another high mountain chain is in view, the Platte Mountains, where, as we afterward learned, the North Platte has its source. On the top of the highest mountain of this chain snow was still lying. For four days we camped on little streams that flow into the North Fork, and found at times very pleasant camping grounds, for instance, at Horse Shoe Creek,
where we rested on the second day. The water was cool and clear, the grass tall and luxuriant, and a thick fringe of cottonwood and sugar maples wound along the banks. Moreover, our hunters again brought fresh buffalo meat, no small spur in arousing lively appreciation of romantic surroundings. The road was growing daily more difficult. Steep ascents and deep clefts and ravines often made it necessary to lower the carts with ropes and pull them up again, or else make a wide circuit. We were visibly ascending. Had we not been already convinced by the violent current of the Platte of our rapid ascent, the thinner, purer air, the broad sweep of our view and the change in vegetation would have called it to our attention. In regard to the latter we noticed especially two companions of our journey that were no more to leave us, namely, cacti, in several species, and wild sage or wild wormwood (*Artemisia Columbiensis*). This *Artemisia* is found on both sides of the Rocky Mountains, in sandy soil, where the grass grows sparsely or not at all. It is of varying size. Sometimes it is stunted, and scarce a foot or two high; but at times it attains the height of a man, and then its stem is as thick as an arm. The wood consists, like that of the vine, of many twisted fibres, is of no use to the carpenter, but makes a good fire, and holds its glow very long. The foliage is characterized by its bitterness. If any of it gets into our food, it is scarce eatable. So, if fresh meat bound to the saddle has been brushed by it in passing, the best thing
to do is to throw the meat away. A bird that feeds on this plant, the so-called sage cock or cock of the plains (*Tetrao Uriphasisianus*), has precisely the same taste. The bird is somewhat larger than a prairie chicken, to which its resemblance is closest, and retains the repellant bitter taste of this plant in whatever way it be prepared for eating.

Our fourth night camp was our first on the North Platte since leaving Laramie. The river here was not very broad. Several of us bathed, but the water was so swift that, though we were all good swimmers, we could scarcely reach the opposite shore. The next day we traveled along the river over steep hills, with little grass or wood. Toward noon, just as we were about to set up our camp, I saw that terror of hunters, the grizzly bear. It was a splendid animal, but it ran away at full speed, and our horses were too tired to make chase. We camped that night again by the river on dirty loamy ground. The next morning we were not a little surprised to see opposite us, across the river, a dozen Indians, who had camped there all night. They swam across. They were Shiennes, who gave us to understand that they were on a horse-stealing foray against the Crows. They themselves were afoot, as is customary with Indians on such raids, and we had not the least reason to doubt their statements. Nevertheless we were keenly on guard to prevent any chance mistake of our horses for those of the Crows. For two more days we went along the river. Although we
ourselves saw no buffalo herds, our hunters regularly brought fresh meat into camp. One evening an old bull strayed near our camp. A couple of novices started after him, but he fell only at the twentieth shot. The wolves followed promptly after the hunters, and howled for us all night long. Such nocturnal music is so common in this wilderness, especially in the buffalo country, that I finally regretted missing it, and found a sort of enjoyment in the long-drawn wails of these beasts, which run through all the minor chords. Say distinguishes four kinds of wolves in America, namely: 1. The common wolf (Canis lupus). 2. The barking wolf (Canis latrans). 3. The dark wolf (Canis Nubilus); and 4, the black wolf (Canis Lycaon). The last named I have not seen on this trip; the second is common. This wolf is smaller than the others, and is remarkable for his peculiar howl. He begins with two or three barks, about like a dachs, and follows it immediately with the howl. As he generally keeps near buffalo, and is therefore a good omen for hunting, he is also called the Medicine Wolf. Although wolves are seen daily, they are very wary. I never heard that they had attacked men; but at night they become impudent; they often sneak into the midst of the camp, and steal meat or leather goods. If one has shot buffalo or other game, they are sure to be lurking in the distance; they approach cautiously as soon as one goes away and reduce the animal to a skeleton with marvelous speed. They count so secure-
ly on this tribute, that they often follow the caravans for days.

Our road along the river now became somewhat smoother. The ground was sandy, and covered with many ant hills, composed of sand and pebbles. We saw some elk. I found, too, a nest of young magpies, which I had not hitherto seen in the United States. On the 21st of June we halted at the river, in order to cross. The North Platte at this point is not as broad as the South Platte, but just as swift. A canoe of buffalo hides was soon constructed, and the very next day we crossed over without any special mishap.
We went further up the left bank of the North Platte, about fifteen miles. The road led over sandy rolling country. From one hill we enjoyed a magnificent wide prospect. Southwestwardly, on our left, are stretched out the Platte Mountains, out of which the river here comes forth, and toward the northwest, at a distance of about one hundred miles, a foggy streak, in which our older traveling companions recognized the snow peaks of the Big Horn Mountains. In the vicinity live the Crows, a treacherous hostile Indian tribe, equally proficient in stealing and scalping. They often rove through the country along the Platte and the Sweet Waters, which are considered by the Indians as a common war ground. The ground over which we went this day was highly permeated with salts. We had seen this on several occasions before, near the
Platte, and some days back had crossed a brook where water tasted quite like Epsom salts. But here it was very marked. We passed along several salt lakes in the prairie, all along whose shores there lay crystallized Epsom salt. At noon we camped on the river for the last time. A herd of buffalo were grazing comfortably on the opposite shore, and were not disturbed by our arrival, for the wind was favorable to us. The river twists here in a southwesterly direction toward the Platte Mountains, from which it issues. Where it issues from the mountains some reddish rocks arise, called the red buttes or hills. Here we left the river, to go more northwesterly toward the Sweet Waters. Moving over monotonous sand hills, we reached at evening a little brook, whose sandy bed had absorbed all the water; but by digging some feet we collected clear water in adequate quantity. During the day we had had thunder storms; at night there came a cold rain mingled with snow; the next morning it was unpleasantly cold. The country continued hilly, sandy, poor as to grass, but so much the richer in sage bush. Buffalo became more and more common. In the sandy soil of this region I found a new strange animal, the so-called horn-frog (*Phrynosoma cornuta*). It is a kind of lizard with thick head and body and short tail. It is of grayish color. Its whole length amounts to three or four inches. The whole back
from head to tail is covered with horny spines. Down the middle of the back runs a horny white comb. On the back of the head are six great spines arranged in semi-circle. This thorny armor makes the little beast resemble an alligator in miniature. It runs very swiftly; is found only on sandy soil, and appears to live on insects. Another smaller kind of lizard, slenderer and exceedingly swift, erroneously called here chameleon, usually occurs in the neighborhood of the horned frog. Near the Sweet Waters the country again becomes more level. Some weather-worn bare rocks alone arise in the midst of the prairie. The ground is covered with decomposed salt tasting of alkali, and with some salt lakes. The buffalo seem specially fond of this region. We drove many herds before us. On the evening of June 25th, we reached the Sweet Waters, a little stream that forms the northern source of the North Platte, and which has probably received its name in contrast to the salty waters round about. We pitched our camp hard by an isolated rock, perhaps one thousand feet long, one hundred feet broad and fifty to sixty feet high, consisting of intermingled granite. It is known by the name of Rock Independence, and is said to have been so christened by a party of Americans who celebrated the Fourth of July here. It is regarded as a Rocky Mountain album, as it were. Many travelers write or cut their names
upon it. All round about us, near and afar, rocks and mountains arise. The Platte Mountains are on our left. The Platte itself is said to be twelve miles off. The next morning we crossed the Sweet Waters. For six days we ascended the river in westerly direction, following it more or less closely and crossing it several times to cut off its meanders. Our road at first was level and passed through a valley, rather narrow at the entrance, but gradually widening, which was bounded on both sides by the Sweet Waters Mountains. The rocks of these mountains are partly bare, partly pine-clad. On their summit it is said there live many mountain sheep (big horn, argali, *Ovis ammon* L), an animal resembling the deer in outward appearance, only somewhat larger, but provided instead of antlers with curved horns like a ram, of which one sometimes weighs about thirty pounds. The Indians make their best bows out of these horns. The mountain sheep climb with ease the steepest rock where they can be followed only with difficulty. To my vexation we did not get sight of a single one. We ran across several buffalo. I could not resist the temptation to try my newly acquired horse at buffalo hunting. I singled out an old bull. My horse soon caught up with him, and fearlessly galloped at his left side, permitting me to put the pistol almost on its breast. At the second shot the bull suddenly turned upon me; but my swift
horse carried me promptly out of the vicinity; and, exhausted by loss of blood, the animal at the fourth shot fell to the ground. It was very lean, so I only took the tongue.

On the third day (June 28th), a white streak appeared in the west. As we rose higher, it assumed more definite shape. Some of its shining points changed gradually to higher and higher steep cliffs with heads of ice and robes of snow; in a word, snow peaks of the Rocky Mountains arose before us. It was the chain of the Wind River Mountains, one of the steepest in this mighty mountain system. These mountains extend in a northwesterly direction with a length of eighty miles by a breadth of twenty to thirty. It is said that one of these peaks was measured geometrically and barometrically on behalf of the Hudson's Bay Company, and that it is 25,000 feet high. As one approaches the mountains on a plateau, to which one gradually mounts through a journey of a thousand miles, and so is at a considerable elevation, it may well be that they do not seem to the eye as high as they actually are; yet such an assumption as to their height, which would put them in a class with the Himalayas, can scarcely be correct. Be that as it may, it is certainly a lofty and imposing chain of mountains, though I miss the romantic surroundings of the Swiss Alps, with their crystal lakes and blooming valleys which group them-
selves so picturesquely around the eternal glaciers. As we had to go around the southeastern point of the Wind River Mountains, we now took a more southwestern direction. The plain on which we had hitherto traveled changed gradually to a hilly country, covered with sandy soil and little grass, but the more sage brush, and quantities of buffalo. The geological character is very different, since we are on the Sweet Waters. Pure granite, basalt, quartz and feldspar are now matters of daily observation. Primitive mountains begin. We ascended continuously. The species of cactus become rarer, the mosses more frequent. Some plants occur here only in stunted form. On the sixth day (July 1st) we left the Sweet Waters to our right near their source on the eastern declivity of the Wind River Mountains. Those are the last waters we pass which flow into the Atlantic Ocean. That same day toward evening we reached a little fresh spring that flows toward the Pacific. The divide between these two water systems is formed by an undulating sandy prairie. The spring at which we pitched our night camp issues from under a rock formed of quartz and spar. In the vicinity grew willows, cedars and some birches (quickenasps). Where the water comes out from under the rock the thermometer placed in it sank to 43.5 degrees Fahrenheit, while it stood in the air at 48 degrees.

As supplement, I note the averages of the thermometrical record of our journey, so far of two
months' duration, from the borders of Missouri to the divide between the eastern and western waters:

*Thermometrical Average According to F.*

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During all this time we had only very few pleasant days, but rain and storm almost daily. The region of rain now is behind us; and—to use the words of our leader—the country where the wind reigns is before us.
CHAPTER ELEVEN

THE YEARLY RENDEZVOUS

Our next objective point was the upper Green River valley, which is thrust like a bay of prairie between the main chain of the Rockies and the projecting Wind River Mountains. Our direction was northeast. The road thither leads over sandy hills and plateaus. The Wind River Mountains lay to our right, permitting a closer view of the precipitous, weather-beaten granite formations cut by deep ravines. As intervening bulwark, there were foothills, dark with evergreens, but void of snow. To our left new snow peaks came into view, the Grand River Mountains. We crossed several streams, first the Little Sandy and the Big Sandy, then the New Fork; all having their sources in the Wind River Mountains and flowing into the Green River. The water is clear and cool, the river bed pebbly. The shores are usually fringed with willows. In these little rivers there are, furthermore, denizens characteristic of western waters. For, while
the Platte has few fish, and little beside catfish are found in the other streams, many trout are found on this side. On the second day we found traces of whites and Indians, that had journeyed ahead of us through this region a short time before, probably to the rendezvous, which takes place yearly about this time in the neighborhood of the Green River. As our destination was the same, though our leader did not know precisely what place had been chosen for it this year, some of our men were sent out for information. They returned the next day while we were camping on the New Fork, with two agents of the fur company, Trips and Walker. These agents were accompanied by their Indian wives and a lot of dogs. The two squaws, quite passable as to their features, appeared in highest state. Their red blankets, with the silk kerchiefs on their heads, and their gaudy embroideries, gave them quite an Oriental appearance. Like themselves, their horses were bedight with embroideries, beads, corals, ribbons and little bells. The bells were hung about in such number that when riding in their neighborhood, one might think one's self in the midst of Turkish music. The squaws, however, behaved most properly. They took care of the horses, pitched a tent, and were alert for every word of their wedded lords. From the agents we learned that this year's meeting place had been fixed on the right bank of the Green River at the angle formed by its junction with Horse Creek. We were now about a day's journey from the place. Starting
off in company in the afternoon, we covered, at a more rapid pace than usual, about twelve miles, and then camped on a branch of the New Fork, whose shores were framed with fine pines. It was the Fourth of July, the great holiday of the United States. Our camp, however, presented its humdrum daily appearance. We stretched out around the fires, smoked and, in expectation of what the morrow would bring, went quietly asleep. The next morning we started early, and reached toward noon the Green River, so long desired. The Green River (Colorado of the West) rises in the northwestern slope of the Wind River Mountains, flows in southwestern direction, and empties into the Gulf of California. Where we first saw it, it is a clear, rippling streamlet, abounding in trout; neither very broad, nor very deep; but later on it becomes a broad, rushing stream. Its navigation is said to present enormous difficulties. We crossed the river, and were then in the acute angle formed by it and the Horse Creek (a brook coming from the northwest and emptying here into the Green River). The space between is level; the ground a loamy sand. The camping place was about two miles above the Horse Creek, along the right bank of the Green River. The plain between the two streams is here about three miles broad. The rendezvous has repeatedly been held here. According to observations formerly made, the place is in longitude 107 degrees 12 minutes west, and between 44 and 45 degrees north latitude. So we were about
four degrees north of St. Louis. The journey which we had made from the border of Missouri, according to our rough calculation, was near 1,200 miles.

We reached the camping place. What first struck our eye was several long rows of Indian tents (lodges), extending along the Green River for at least a mile. Indians and whites were mingled here in varied groups. Of the Indians there had come chiefly Snakes, Flatheads and Nezperces, peaceful tribes, living beyond the Rocky Mountains. Of whites the agents of the different trading companies and a quantity of trappers had found their way here, visiting this fair of the wilderness to buy and to sell, to renew old contracts and to make new ones, to make arrangements for future meetings, to meet old friends, to tell of adventures they had been through, and to spend for once a jolly day. These trappers, the "Knights without fear and without reproach," are such a peculiar set of people that it is necessary to say a little about them. The name in itself indicates their occupation. They either receive their outfit, consisting of horses, beaver traps, a gun, powder and lead, from trading companies, and trap for small wages, or else they act on their own account, and are then called freemen. The latter is more often the case. In small parties they roam through all the mountain passes. No rock is too steep for them; no stream too swift. Withal, they are in constant danger from hostile Indians, whose delight it is to ambush such small parties, and plunder them, and
scalp them. Such victims fall every year. One of our fellow travelers, who had gone to the mountains for the first time nine years ago with about one hundred men, estimated that by this time half the number had fallen victims to the tomahawks of the Indians. But this daily danger seems to exercise a magic attraction over most of them. Only with reluctance does a trapper abandon his dangerous craft; and a sort of serious home-sickness seizes him when he retires from his mountain life to civilization. In manners and customs, the trappers have borrowed much from the Indians. Many of them, too, have taken Indian women as wives. Their dress is generally of leather. The hair of the head is usually allowed to grow long. In place of money, they use beaver skins, for which they can satisfy all their needs at the forts by way of trade. A pound of beaver skins is usually paid for with four dollars worth of goods; but the goods themselves are sold at enormous prices, so-called mountain prices. A pint of meal, for instance, costs from half a dollar to a dollar; a pint of coffee-beans, cocoa beans or sugar, two dollars each; a pint of diluted alcohol (the only spiritous liquor to be had), four dollars; a piece of chewing tobacco of the commonest sort, which is usually smoked, Indian fashion, mixed with herbs, one to two dollars. Guns and ammunition, bear traps, blankets, kerchiefs, and gaudy finery for the squaws, are also sold at enormous profit. At the yearly rendezvous the trappers seek to indemnify themselves for
the sufferings and privations of a year spent in the wilderness. With their hairy bank notes, the beaver skins, they can obtain all the luxuries of the mountains, and live for a few days like lords. Coffee and chocolate is cooked; the pipe is kept aglow day and night; the spirits circulate; and whatever is not spent in such ways the squaws coax out of them, or else it is squandered at cards. Formerly single trappers on such occasions have often wasted a thousand dollars. But the days of their glory seem to be past, for constant hunting has very much reduced the number of beavers. This diminution in the beaver catch made itself noticeable at this year’s rendezvous in the quieter behavior of the trappers. There was little drinking of spirits, and almost no gambling. Another decade perhaps and the original trapper will have disappeared from the mountains.

The Indians who had come to the meeting were no less interesting than the trappers. There must have been some thousands of them. Their tents are made of buffalo hides, tanned on both sides and sewed together, stretched in cone shape over a dozen poles, that are leaned against each other, their tops crossing. In front and on top this leather can be thrown back, to form door and chimney. The tents are about twelve feet high and twenty feet in circumference at the ground, and give sufficient protection in any kind of weather. I visited many tents, partly out of curiosity, partly to barter for trifles, and sought to make myself intelligible in the language of
signs as far as possible. An army of Indian dogs very much resembling the wolf, usually beset the entrance. From some tents comes the sound of music. A virtuoso beats a sort of kettle drum with bells around with all his might, and the chorus accompanies him with strange monotone untrained sounds that showed strong tendency to the minor chords. A similar heart-rending song drew me to a troop of squaws that were engrossed in the game of "the hand," so popular with the Indians. Some small object, a bit of wood, for instance, is passed from hand to hand among the players seated in a circle; and it is some one's part to guess in whose hands the object is. During the game the chorus steadily sings some song as monotonous as those to which bears dance. But the real object is to gamble in this way for some designated prize. It is a game of hazard. In this case, for example, a pile of beads and corals, which lay in the midst of the circle, was the object in question. Men and women are so carried away by the game, that they often spend a whole day and night at it. Other groups of whites and Indians were engaged in barter. The Indians had for the trade chiefly tanned skins, moccasins, thongs of buffalo leather or braided buffalo hair, and fresh or dried buffalo meat. They have no beaver skins. The articles that attracted them most in exchange were powder and lead, knives, tobacco, cinnabar, gaily colored kerchiefs, pocket mirrors and all sorts of ornaments. Before the Indian begins to trade he
demands sight of everything that may be offered by the other party to the trade. If there is something there that attracts him, he, too, will produce his wares, but discovers very quickly how much or how little they are coveted. If he himself is not willing to dispose of some particular thing, he obstinately adheres to his refusal, though ten times the value be offered him. The peltry bought from the Indians must be carefully beaten and aired, at peril of having objectionable troops billeted on you. The Indians, accustomed to every kind of uncleanliness, seem to have a special predilection for a certain kind of domestic animal, and even to consider it a delicacy. So, for instance, I have repeatedly seen an old granddam summering before the tent with her gray-haired spouse, and busily picking the "heavy cavalry" from his head. But the fingers that deftly caught the prisoner with equal deftness carried him to the mouth, where the unhappy creature was buried alive. Chacun a son gout!

The rendezvous usually lasts a week. Then the different parties move off to their destinations and the plain that today resounded with barbarous music, that was thronged with people of both races, with horses and dogs, returns to its old quiet, interrupted only now and then by the muffled roar of the buffalo and the howl of the wolf. As yet I had had indefinite plans as to how far I should extend my trip. The fur company which we had joined intended resting in the vicinity for some weeks, and then returning
with a cargo of furs to the borders of Missouri on
the same road by which we had come up here. The
greater part of the rest of our company planned
to go to the Columbia River; some, too, from there
to California. The latter scheme attracted me par-
ticularly. I thought of getting to the Columbia in
some months, going to California in the fall, spend-
ing the winter there, and returning in the spring by
way of Santa Fe to the United States. I therefore
joined that party. Of late the temperature had been
pretty high at noon; the nights, on the other hand,
cool. For the first time I felt somewhat unwell, but
not enough so to prevent a further journey. The
most difficult part of our trip, the crossing of the
main chain of the mountains, still lay before us.
Capt. Bonneville had already penetrated to the Green
River valley with wagons; but, as far as I know, no
attempt has as yet been made to go over the moun-
tains themselves with them, but horses and mules
alone are used for transportation of baggage.
CHAPTER TWELVE

THE CROSSING OF THE MOUNTAINS—THE GRIZZLY BEAR

In July 10th we left the Green River and the rendezvous. Our party consisted of the former traveling companions, of Captain Armedinger, the agent of the Hudson's Bay Company at Fort Hall on the Snake River, who had visited the rendezvous with about a dozen of his men, of some trappers going back again to their craft, and of several hundred Indians, chiefly Flatheads, on their return to their home across the mountains. The mixed procession presented indeed an original appearance. The inhabitants of a great city would give much to see such a caravan passing through their streets. In motley confusion whites and Indians, squaws and children, scurried past each other. The men let their eyes rove about in search of game, and as soon as a shy antelope came in view, a great blood-thirsting gang rushed after it, to return after some time generally without any success. The squaws,
who must attend to the packing, rattled past us with their long tent poles. Anon they would stop to rearrange the pack, to gather herbs and roots, or to quiet the babies. The position of the latter can hardly be called very pleasant. The Indian women carry their nurslings in a case of buffalo hide consisting of a long leather piece with a projection below as foot rest. On this back piece the youngster is laid flat. In front is an arched piece of leather fastened to both sides of the back of the case, enclosing the whole body from the neck to the feet. Only the uncovered head is free, protruding from this little box. The sight inevitably calls to mind the figure of Egyptian mummies. In walking, this little papoose case with its contents is thrown over the back and held with a strap over the forehead or chest of the mother. But in riding it is bound to one side of the saddle, and the little head nods in time to the trot or gallop of the horse. As soon as the child can sit alone, it is freed from its prison house and is fastened to the horse, wrapped in buffalo hide. The first thing for which it learns to grasp is the bridle or the whip. So it is no wonder that the Indians are all born riders and that the squaws have usually a better seat a-horseback than white men. The direction we took to cross the mountains was at first southwest, and afterwards northwest. The chain in front of us, which we have to cross, is much lower than the Wind River Mountains. No more snow peaks tower out of it; only patches of snow can be seen here and there, which
probably wholly melt away later in the summer. The naked, jagged forms of rock have also disappeared; and in their stead we have an even, continuous, thickly wooded mountain chain, with narrow valleys and ravines, from which cool mountain streams gush forth. This chain stretches in a rather straight line from north to south, and then, forming an acute angle at the southern end, extends northwestwardly between the Bear River and the Snake River. On the eastern slope of these mountains several brooks arise which all pour into the Green River; from the northwestern slope come the waters which flow toward the Bear River. We descended about eighty miles in southwestern course along the eastern slope, and crossed the acute angle above mentioned to reach the northwestern slope. On the first day we made only eight miles. We crossed Horse Creek and camped on Lead Creek. The road led over plateaus toward the mountains. The next morning we were still in similar country, but at noon we reached a little meadow, enclosed by steep heights, through which meanders a rippling brook with cool water. From now on we had to wind our way through wooded hills. We generally followed the course of brooks through narrow ravines, on whose steep sides the animals had to climb in single file in a long line. On both sides were acclivities, often very steep, overgrown with heavy pine and cottonwood. At times we had to clamber over the mountains themselves through thick pine timber to get from one ravine to another. The geologi-
cal formation was primitive throughout. There was particularly much basalt. Here and there, too, one finds traces of that same lava which we later found spread over great areas. The vegetation was rather luxuriant. A quantity of wild flax particularly struck us. The scenery was generally wild and romantic, but I was unable to enjoy its beauties, for I had felt somewhat unwell even at the Green River. With the hope that traveling would soon restore me, I had forborne as yet to make use of the medicines I had with me. But the symptoms became worse. I feared that I was getting a severe bilious fever, and felt myself obliged to make up for my omission. On the fourth day I felt so weak that during the afternoon I could hardly keep my seat on the horse. So I let the whole train pass me, tied my horse and threw myself on the ground, indifferent as to what might become of me. Complete listlessness possessed me. The whole nation of Blackfeet might have swarmed around me; I would not have stirred from the spot. I soon fell into a feverish sleep. My faithful dog (I had a young German hunting dog with me), having missed me in the caravan, had in the meanwhile returned to me. When I woke the sun was setting. My mule had torn himself loose, and thrown off his pack, but was still close by. I felt a little stronger, packed up once more and followed the trail of the caravan. I had ridden some miles, when one of my traveling companions, who in the meanwhile had pitched their night camp and then missed me for the
first time, came to meet me. The camp was about three miles away. We reached it that evening, hav-}

ing seen on the way a grizzly bear that ran away from us. The camp was on Smith’s Fork, the first water on the northwestern slope, which direction we followed from now on. The character of the country remained substantially the same. We had constantly dense pine forests about us; but the cottonwoods had disappeared. On the fifth day we reached Thomas Fork, on whose banks great quantities of pure, good-tasting common salt were lying. Most of us took along a supply. Such deposits of salt are said to occur at several other places in the mountains; so this most precious of condiments is not very dear there. At noon next day we reached Tullick’s Fork. On the road a grizzly bear was shot. As this dreaded ani-

mal will cut a figure several times in the adventures of our journey, I will here add some remarks about it.

The grizzly bear (Ursus horribilis, Ord.) is dis-

tinguished from other members of the bear family by the almost straight profile of his face and by his longer claws. The hair, short on the forehead and long and thick on the rest of the body, shows a pec-

uliar mixture of white, brown and black, with many shadings. The ears are short and rounded; the fore-

head somewhat convex. The eyes are very small. The short tail is hidden in the shaggy hair. The curved claws are three to five inches long. The whole length of the full grown bear is about ten feet; his height, three to four feet; his weight, seven
hundred to eight hundred pounds. He cannot climb
trees like the black bear, but has fearful strength and
dexterity. He often drags a whole buffalio for some
distance, and runs almost as fast as a horse. He
lives partly on meat, partly on fruits and roots. He
is found oftener on the eastern than on the western
side of the Rocky Mountains. When he is hungry
or has been irritated he attacks whatever comes in his
way. One blow of his paw is enough to knock a man
down. But under other circumstances he runs away
from man, and defends himself only when pursued.
With such qualities it is no wonder that he is the
dread of hunters. A bullet through brain or heart
will end him, but in all other parts of the body he
survives numerous wounds. A good hunter there-
fore, does not shoot until he is within ten or twenty
feet of him. When the females are with young they
live very retired, so that I have never heard of a
hunter that shot a pregnant grizzly she bear. The
meat of the grizzly is very palatable. Along the
back there is solid white fat, a hand thick. The griz-
zly we found on this occasion was still young. The
dogs of the Indians discovered him in a thicket, but
he wouldn't budge from it. The Indians surrounded
him on horseback, and shot at him. Whenever he
assumed a threatening attitude, they all ran away.
The dogs, however, seemed to check his anger. He
would not leave his hiding place. Finally one of our
hunters approached within ten feet of him, and laid
him low with a single bullet.
From Tullick's Fork we entered upon more open country. The western slope of the Rocky Mountains has no more deep valleys than the eastern, but passes imperceptibly into broad plateaus. In the afternoon we crossed over a treeless, rather level prairie to the Bear River, and encamped there. The Bear River rises in the Eastern Mountains, a chain toward the south, goes in a semi-circle first northward, then down northwestwardly and empties into the Great Salt Lake (also called Lake Bonneville). It is a clear stream, not very wide or deep. Mostly willows grow on its banks. My illness was by this time pretty well subdued, though I felt very weak for some weeks. Several of our company also were unwell, the cause for which could probably be found in the hot days and cool nights, the drinking of cold mountain water, and the eating of dried meat, which we had to eat for want of fresh. An emetic or purgative, promptly administered, usually brought speedy relief.

On the seventh day we went up the right shore of the Bear River by a fairly level and open road and encamped that evening on its banks. Our night camp was at too attractive a place to be merely mentioned; for we were at one of the most remarkable spots in the whole mountain country—at the Beer Spring, so well known to every mountain traveler.
CHAPTER THIRTEEN

THE BEER SPRING—JOURNEY TO FORT HALL

As there are persons whose expression fascinates and wins us through something that we keenly feel but cannot clearly understand, so is it also true of some natural scenes. Such an impression took possession of me at first view of the so-called Beer Spring. I have looked on finer and more majestic scenes, but never found a more home-like place than this valley, produced out of the wrecks of prior geological revolutions, or one on which Nature had bestowed more of everlasting peace. Surrounded by banks of lava, numberless mineral springs bubble forth out of the calcined ground; a charming cedar grove invites the weary wanderer to its shades and the clear babbling Bear River rolls its ripples through the valley of peace.

We approached the valley from the east on the seventh day after leaving Green River (on July 16th). The way thither was sprinkled with scattered
pieces of lava, and satisfied us that we were on the edge of the so-called great lava plain which is said to stretch in northwesterly direction about one hundred miles across the Snake River.

This lava consists of grayish black, porous, very heavy and hard pieces, varying much in size, sometimes covering the ground in flat layers, sometimes however in walls ten or fifteen feet high and several hundred feet in length, going down vertically on one side and running back to the level on the other in one connected mass. Nowhere in this region could I find anything like craters to whose extinct volcanic activity in prior ages these results could be ascribed. They seemed rather to have originated in so-called earth fires. The neighborhood of Beer Spring forms a center of this land of slags. At least I have not seen elsewhere these scoriæ, lying flat as well as built in walls, more frequent or more characteristic of the country. About Beer Spring the lava bed is covered with a very white potter's clay. Out of a hill formed of this clay, the white clay hill, arises a clear fresh brook that flows into the Bear River. About half a mile off is the bottom of this valley abounding in springs. It lies in 44° north latitude and 109° west longitude, on the eastern bank of Bear River. It is shaped like an amphitheater. On the south it is bounded by the Bear River, running from east to west, and by hills beyond the river, covered with pine; on the three other sides it is enclosed by a chain of low sandy, cone-shaped hills, in part bare, in part
crowned with pine and cedar. The valley thus enclosed is half a mile to a mile in diameter, and covered as to the greater part with a cedar grove. This evergreen cedar (*Juniperus Virginiana*) is the same which is also found in the eastern parts of the United States. It is only found in sandy soil on low mountains or the slopes of higher ones. It tends rather to thickness and breadth than to height, and is never crowded, though forming little woods. Unfortunately travelers have cut down and burned many trees of this grove. Its total destruction could rob the valley of one of its most precious ornaments. I fixed my camp under an old cedar, near one of the springs, that here bubble up from the ground. Exhausted by the burden and heat of the day, we all refreshed ourselves with this delicious draught. It was a cool, sparkling water, slightly chalybeate to the taste, with cheering and invigorating effect on the nervous system. So far as I could determine without chemical analysis, it is some acid of iron with abundant carbonic acid and slight admixture of salts. Addition of a little sugar and tartaric acid made it effervesce rapidly; in quiet condition, the carbonic acid escaped in little pearly bubbles. This pearling and effervescing has given the water the prosaic name of Beer Spring, since the term beer is in general use for all effervescing liquids. These springs appear either singly in perpendicularly walled openings out of the earth, about a foot in circumference and several feet deep; or else several of them form a common basin.
The water seems to be the same in all of them. On the margin of these springs there is usually a deposit of a red-brown oxide of iron, and various limestone formations with petrefactions are in the vicinity. The bottom of the spring is a soft mud. The water level seems to be the same in all of them. They have no outlet, although they are obviously in subterranean connection with each other, as well as with the Bear River, close by. For even in the river itself a number of such springs are seen to bubble up, and the stones on the shore, that are washed by these little fountains, are also coated with a red-brown crust. Several of these springs, shaded from the sun, which I tested with the thermometer, showed, all of them, a temperature of 54° F., while the air in the shade stood at 76°. A warm spring, some thousands of feet lower down the river, and close by it, deserves special mention. The spring issues from a block of lime, which it formed itself, in all probability, in the course of time. The stream, as thick as an arm, spouts out in abrupt pulsations, and runs into the river over the rock which is coated with oxide of iron and white crystals of salt. With the air at a temperature of 76° F., this water showed 84°. Its taste was like that of the cold springs, only weaker. About six feet off are two smaller openings, one of which is obstructed, while the other is still open. From the latter there issues with puffing noise, also in spurts, which are not timed, however, with those of the water, a gas mingled with vapor. This gas has a
somewhat pungent and benumbing odor. Some of my companions thought it weak sulphurated hydrogen; to me it seemed merely carbonic acid gas. The puffing noise deceptively resembles the well-known sound of an engine, for which reason is also known by the name "Steamboat."

Gladly would I have spent some time in this most interesting valley, but my companions, less enthusiastic than I, insisted on pushing on; and so we left it the next morning. On our seven-day journey from the Green River to the Beer Spring we had covered almost two hundred miles. Many Indians, for whom we traveled too rapidly, had remained behind. Here our company divided again. The greater part of them went northwestwardly to Fort Hall on the Snake River, about fifty or sixty miles distant; while about a dozen others traveled northwardly to hunt, and then also go, with fresh provisions of meat, to Fort Hall. The latter party consisted of my old traveling companions that intended to go to the Columbia River. I joined them. In the mountains themselves we had seen no game save some grizzly bears; and so had lived on the dried meat which we had bought of the Indians at the rendezvous. The projected trip to the Columbia, however, on which we would have to cross a wide, barren, sandy plateau, made fresh meat supplies a necessity, which determined us to make this side trip. The neighborhood of the Beer Spring does not abound in game; further north, however, toward the Snake River, we hoped
to find more of it. The leader of our little party was Mr. Richardson, an experienced mountaineer, who had been with us from the beginning of our journey. On July 17th we left the Beer Spring. Between Snake River and Bear River there is an unimportant chain of mountains, a continuation of the one down whose northwestern slope we had traveled. Two little streams, Gray Creek and Blackfoot Creek, have their sources in these mountains, and flow into the Snake River in a northwesterly course. We crossed these mountains, and zigzagged northeastwardly and northwestwardly in the angle formed by the three streams last mentioned.

On the first day we only saw some shy antelope; on the second day we saw two buffalo, and killed one of them. The country was broken, the ground sandy, and game was scarce. For three days we remained on a little brook, while some of us were sent out to hunt. In all this time only three buffalo, a buffalo calf and a grizzly bear were shot. If ever a sojourn was tedious to me, it was this one. The surroundings were depressingly desolate. Only hungry ravens croaked around, as if in mockery of us; and as the Blackfeet frequently roam through the country, we had to keep as quiet as possible. No one was permitted to fire a gun or go hunting, save the hunters regularly chosen for the purpose. On the seventh day we finally started off again. I felt a load off my heart as I mounted once more, and turned my back on this uncanny country. On the same day we saw
in the distance the so-called Three Buttes, three steep snow peaks, across the Snake River, visible from afar. The sandy valley of the Snake River was spread out before us. On the eighth day we crossed the Blackfoot Creek, followed its course for a time, and finally on the ninth day camped near the Snake River, about eight miles below Fort Hall. The next day, July 26th, I rode with some others to the fort.
CHAPTER FOURTEEN

THE COLUMBIA RIVER—THE HUDSON'S BAY COMPANY

Fort Hall lies on the left bank of the Snake River, between the mouths of the Blackfoot and Portneuf Creeks. It was built by Capt. Wyeth, and sold by him some years later, when he left the mountains, to the Hudson's Bay Company, in whose possession it has remained up to the present. It is the most southern fort which this English company has pushed into the Oregon Territory of the United States. The fort lies hard by the river, and is built in a square of about eighty by eighty feet, suggestive of barracks. The style is essentially that of Fort Laramie, except that the outer walls, ten to twelve feet high, are constructed in this case out of partly baked brick instead of wood. A small cannon is in the courtyard. The fort owns many horses and six cows. The whole garrison consisted of six men; among them two Sandwich Islanders and a German. The clerks of the fort were Mr.
Armedinger and Mr. Walker. We had learned to know the former as a jovial companion at the rendezvous. Both showed themselves very obliging to us, and furnished in this respect an agreeable contrast to the often brusque behavior of agents at American forts. The day of our arrival we were invited to a supper in the fort, which would be deemed quite frugal in civilized life, but which, in this wilderness, consisted of the most delicious dishes which we had tasted since we started, namely, bread, butter, milk, dried buffalo meat and tea with rum. No Paris meal composed with all a gourmand's art ever tasted better to me, than the luxuries (for that country) of this feast on the sand steppes of the Snake River. As we intended to stay here at least eight days to allow our animals to recuperate and to prepare ourselves for the trying journey to the Columbia, I employed the time in making inquiries about the Hudson's Bay Company and the country about the Columbia River, and here give the result:

The Snake River (Lewis River) has its source on the western slope of the main chain of the Rockies, and flows in northwesterly direction about eight hundred miles, when it unites with the Clarke River, coming from the northeast, to form the Columbia River, which, after a western course of only two hundred miles, empties into the Pacific Ocean. The Snake River flows through a sandy plateau, in which there can be found almost no game and very little food for the animals. About one hundred miles from
the Columbia, the Snake River pierces a spur of the Rockies, the Blue Mountains. The river has a very rapid current, and is broken up by numerous falls, of which the first begin a little below Fort Hall, and has banks of basalt, so steep that one must often go along them for quite a while before finding a place to get water. Below the falls, near the Columbia River, it is full of salmon, which the Indians kill by thousands with the spear, dry and keep in store. Until one comes to that region one must be provided with an ample supply of dried meat, if one does not wish to risk encountering such hardships as Mr. Hunt experienced on his memorable journey thitherward. The broad Snake River valley is in the main sterile country. The climate there is moderately warm. The summers are remarkable for great dryness; for whole months there is neither dew nor rain. The winters are rather cold. Snow is often several feet deep. Westwardly from the Snake River there are several steep mountain chains with many glaciers, dividing this country from California and the Pacific Ocean. The direct road to California is very difficult on account of these mountains. Even unloaded mules can cross them only with great effort. For this reason it is thought preferable for those going to upper California to make a detour via the Columbia River. The distance from Fort Hall to the Columbia is estimated at about six hundred miles. A second fort belonging to the Hudson's Bay Company lies at the junction of the Boisse with the Snake River. The
first English fort on the Columbia is Walla Walla, about nine miles below the Snake River. But the main fort of the Hudson's Bay Company is Vancouver, on the right bank of the Columbia, about ninety miles from its mouth. Furthermore, there is a fort on the Clarke River, Fort Colleville, and several others of less importance on various small rivers that flow into the Columbia. These forts are built like the American ones, meant simply for defense against the Indians, and without military garrisons. Fort George, the Astoria of the past, consists simply of a blockhouse occupied by only three or four men, whose duty it is to note the arrival of vessels and pilot them. The Columbia River seems to have been known to Spanish seamen. The honor of its first authentic discovery belongs to Captain Robert Gray of Boston, who, sailing under the flag of the United States, discovered it in May, 1792, ascended it for fifteen miles, and gave it the name of his own vessel, Columbia. Two promontories form the entrance to the Columbia River: on the north, Cape Disappointment; on the south, Cape Adams. A sand bank running from north to south for two miles, with, at places, only four and a half fathoms, makes the entrance difficult; but there is on one side a channel of adequate depth, though narrow. For the first ten miles the Columbia is about four miles broad; higher up, to Vancouver, it has an average width of a mile. It is a deep river, carrying much water. Vessels with not more than fourteen feet draught can ascend it for about one
hundred and twenty-five miles; but above that a succession of falls begin, impassable for vessels of every kind, forming obstacles whose removal would be disproportionately expensive.

The land along the Columbia has been described in most recent times as a western paradise. The truth of the matter is that the ground is indeed very fruitful, and well suited for the cultivation of wheat, barley, oats, rice, beans, potatoes, apples, tobacco and the like; but just as good tracts of land can be found in Illinois and Missouri. Besides, the Columbia River itself has only small valleys, which are subject to overflow; and so the valleys of the smaller streams that flow into the Columbia from the north and south are even better. One of the most fertile tracts is the land along the Wallamette, which flows from south to north into the Columbia. Immediately on the seacoast the land is the worst. The chief kinds of wood are white oak and long-leaf pine. Game is scarce, but there is superfluity of fish, especially salmon. The climate in summer is about the same as in the central part of the United States. The summer is distinguished by its dryness; for which reason maize succeeds indifferently. In winter, there is seldom frost or snow; but from October to April there is almost continuous rain, which refreshes the dried grass and makes it green. The fields are usually sown as early as January. These mild winters make this country one of the most suitable for cattle raising. No part of the United States is thought to
excel it therein. Horses, cattle, and sheep—hogs in a less degree—thrive here exceptionally, and multiply with amazing rapidity. The country on the Wallamette is also distinguished in this particular. The settlement at Vancouver is up to now the largest on the Columbia River. The fort is a square building, two or three hundred feet long and broad. In its midst are the various workshops; but the workmen live chiefly outside of the fort in little block houses. The people in the employ of the Hudson's Bay Company, mostly Canadians, amount to about two hundred, and as for the greater part they have married Indian women, the whole number of inhabitants may be estimated at from seven to eight hundred.

The fort has laid out a farm in its vicinity. In 1837, about three thousand acres were in cultivation. The produce was: 8,000 bushels of wheat, 5,500 bushels of barley, 6,000 bushels of oats, 9,000 bushels of peas, and 4,000 bushels of potatoes. Of animals they had in the same year about one thousand head of cattle, seven hundred hogs, two hundred sheep, five hundred horses and forty yoke of draught oxen. In addition they have a great threshing machine, a distillery, and a grist mill. A saw mill, cutting 3,000 feet a day, and served by twenty-eight men and ten yoke of oxen, lies six miles from Vancouver on a little river that flows into the Columbia. The surplus products, chiefly flour and boards, the Hudson's Bay Company exports to the Sandwich Islands and to California. For one thousand feet of boards
they get in the Sandwich Islands $60.00 to $100.00. In California, they generally exchange for cattle at $3.00 a head. The company conducts this trade with its own vessels. It owns at present one ship, one brig, one schooner, one sloop and one steamboat. The inner organization of the Hudson's Bay Company is based on strict subordination. The company consists of one hundred shareholders, who are such, however, only for life. Headquarters are in London. The general agents, who live in America (partners), receive one-eighth of the profit on one share, which amounts annually to $4,000 to $5,000; chief traders receive one-sixteenth; clerks receive yearly £100; and laborers £15 to £17 with fixed rations of potatoes, salmon, beans and salt in addition. The company engages its men for five years, and sends them back to their homes if they do not wish to serve longer. Old employes it permits to stay in the country on leave of absence, assigning them land to cultivate. During the time they receive no salary, but can be called into service at any moment. Promotions are made on a system based on rank and age. A yearly meeting of the partners and chief traders is held at York Factory on Hudson’s Bay, which meeting has jurisdiction over all employes of the Hudson’s Bay Company, and issues its orders from there. Constant communication is maintained between Vancouver and York Factory by land through express messengers. In addition a ship comes yearly from London to the Columbia River to bring fresh merchandise, and to
carry back to England the furs which the company acquires from Indians and trappers in coast and inland trade. Beaver skins are the most profitable part of the cargo. Shipment of salmon has been abandoned. The company receives all its goods from England free of duty, and sells them much cheaper than the American companies. In this way the Hudson's Bay Company is in position to hold all competitors in check, and to maintain an undisputed overlordship over all the regions beyond the Rocky Mountains. The Indians on the Columbia River, already greatly diminished in numbers through disease and excesses, are committed to it so unconditionally that they scarce dare to trade with Americans. As yet, all attempts ventured by Americans against this company have gone to pieces. The Hudson's Bay Company has the advantages of connection by sea, internal union and the protection of the English government. The only settlement made by citizens of the United States is now on the Wallamette. This small stream, flowing from the south to the Columbia, is about one hundred and fifty miles long, and navigable for ships of twelve feet draught for about twenty miles. Some New York Methodist missionaries have recently settled here and gathered around them a little colony of Americans, Canadians and Indians. As they do not trade, but devote themselves only to agriculture and cattle raising, the Hudson's Bay Company has put no obstacles in their way, but, on the contrary, encourages them and takes supplies from them at
fixed prices. For a bushel of wheat, for instance, the company usually gives fifty cents in goods, while it receives on its part one dollar and a half in money from the Russians in California.

The Americans, whose claims to the territory of the Columbia River are much better founded than those of the English, are now merely tolerated by the Hudson's Bay Company. Had the Government of the United States given the slightest support to Astor's enterprise, the Americans in all probability would still be in possession of the country; but, as it is, the United States has done nothing to protect its claims through treaties. As far back as 1818 a treaty was made between the United States and England, whereunder both powers were allowed free access to the Columbia, without abandoning their respective claims. In 1826, the United States proposed to England to draw the line beyond the Rocky Mountains to the Pacific Ocean in prolongation of the boundary on this side of the mountains, that is to say, on the forty-ninth parallel, whereunder the Columbia River would have fallen wholly in the territory of the United States; but the proposal was rejected and the former treaty was renewed for an indefinite period determinable by one year's notice. This provisional arrangement, during which the English, by means of the Hudson's Bay Company, have acquired the actual control of the country, is still in force. The country is too valuable to ever be surrendered voluntarily by the English. While the Columbia is navigable for only
a short distance, and its tributaries, on account of the numerous falls, are not suited for navigation, there is the better opportunity for mills and power plants; and better communications could easily be secured through the construction of canals. Moreover, the country is very suitable for agriculture and cattle raising. The interior trade and the coast trade with the Indians is very profitable. The intercourse with the Sandwich Islands, California, Russian America and Asia grows from year to year; and the trading vessels and whalers on the Pacific Ocean find here a safe base for action. In short, if any place on the western shore of North America seems designed by nature to be a western New York on the Pacific Ocean, it is this. The Straits of Juan de Fuca, somewhat further north, form a much better harbor. It is said that a whole fleet could anchor there in safety. These straits also lie south of the forty-ninth parallel. The Hudson's Bay Company seems to have secret assurances from the English government that at the worst the course of the Columbia River would be made the boundary, and its right bank retained; at least all the chief settlements of the company are made on that side, and buildings begun on the left shore have been abandoned. But the United States will not submit to such an infraction of its rights, and again the problem of the Gordian Knot will not be solved without the sword.
CHAPTER FIFTEEN

BEGINNING THE RETURN JOURNEY—THE BEAVER

REMAINED eight days at Fort Hall. We camped outside of the fort. Various parties of Indians and trappers arrived during this time, and camped by us. The trappers were mostly French-Canadians, preparing for a fresh campaign against the beavers. The Indians, chiefly Flatheads, led a life that suited them perfectly. They gambled and sang all night long, and slept during the day. Near the fort were some graves. In one of them rested Antoine Godin, an adventurous mountaineer and a bitter foe of the Blackfeet. It was he who brought on in 1832 the bloody fight with the Blackfeet at Pierre's Hole, related in W. Irving's "Rocky Mountains," by treacherously grasping the hand of their leader, while another shot him. The Blackfeet after that harbored the bitterest enmity for him. Some years later a band of Blackfeet appeared near Fort Hall, on the right bank of the Snake
River. Through signs they made it known that they were peaceably disposed and wished to trade with the fort. Some white men—among them Godin, who chanced to be there—crossed the river, and smoked the pipe of peace with them. While they were thus employed, a Blackfoot shot Godin from behind, and so avenged the death of their leader through similar treachery. Such occurrences are here, unfortunately, not uncommon; and the first provocation is given ordinarily by the whites rather than by the Indians.

The days of rest which I spent at Fort Hall restored full vigor to my body, which had been debilitated by my previous illness and hardships; and the leisure I had to reflect on my program for further travel, determined me to change it; and, instead of going to the Columbia River to return to the United States. Several reasons brought me to this conclusion. In our party, composed of very heterogeneous elements, many dissensions had of late developed, so that a regular separation occurred, our party, small as it was, splitting into three or four smaller ones. Although I took no part in these petty quarrels, I was ill at ease the while, and missed a great comfort on such trips, that is, good company. Moreover, I would in all probability have had to spend the winter on the Columbia, for the journey from there to California by land is very fatiguing and dangerous. Caravans go there but seldom, and then my limited means would not permit me a prolonge d stay on the Columbia and a scientific exploration of the country.
Under these circumstances I thought it most advisable to return in the fall to the United States by another road than that by which we had come up. Two of my former traveling companions came to the same resolution. But as we were all novices in mountain life, and wished to cross the country in various directions, we looked about for an experienced and reliable guide, and found him in Mr. Richardson, who had accompanied our journey up as hunter. So there were only four of us to begin the return trip. Our plan was to cross the Rocky Mountains in a more southern direction; to gradually draw toward the Mexican border and to reach the boundary of Missouri by the great Santa Fe road. Our undertaking was not without danger. Our little party, in case of an encounter with hostile Indians, had little chance of success. On the other hand, we had the advantage of attracting less notice and of being able to travel faster.

We left Fort Hall in high spirits on August 10th. We proceeded on a southeasterly course directly to the Beer Spring, sixty miles off. The road thither was hilly and even somewhat mountainous. Pine, cedar and cottonwood were the prevailing trees. At a little brook I had the pleasure of seeing for the first time an old beaver dam. Unfortunately I did not get sight of a single beaver on the whole journey; for they are very wary and from June to August, during which time I was in beaver regions, beaver trapping is usually suspended. So I can give the natural his-
tory of this remarkable animal only on the basis of reliable reports.

The beaver (Castor Fiber) is about two feet long, has a thick heavy body, compressed head with short elliptical ears, and somewhat oval, but rather broad tail, about ten inches long and covered with scales. The whole body is covered with a dense fur, consisting of longer reddish brown and shorter silvery hair. The skill of these animals in constructing their dwellings is well known. They prefer living on brooks and streamlets whose shores are overgrown with willows. In order to have deep water continually, they build a dam through the water, sometimes diagonally, sometimes in a convex bow. At this dam all the colony of beavers living together work jointly. Their only tools for this building are their teeth, their claws and their tail. In the water thus dammed up, each beaver family builds for itself out of the same material little square dwellings. In addition to these dwellings the beavers usually have side caverns in the bank of the stream (caches), where they retire when their dwellings are destroyed. When the state of the water makes it unnecessary, or when they are often disturbed, they build neither dam nor dwellings, but content themselves with these side caverns. Their dwellings, which they frequently repair, become in time so firm that they can only be broken with tools. The greater part of these dwellings is under water; but there is under the roof a space without water, as the beavers cannot remain long under water without
breathing. The conical roof is often four to six feet thick. The interior of their dwellings they keep very neat. Every dwelling has, deep down in the water, on the side furthest removed from the shore, an opening for the entrance and exit of its inmates. Beavers work only at night. By day they do not leave their dams, and swim, when going from one cone to another, so far under water that one cannot notice them.

The beaver feeds on the roots of various water plants; for instance, a *nuphar luteum*, but chiefly on the bark of various trees, especially willow, cottonwood and birch. Only in sore need does he gnaw the pines. With this object, beavers fell trees whose trunks are even six to eight inches in diameter, solely by gnawing them with their sharp teeth, leaving a conical stump. They like to cut the trees on the shore side and then float them down on the water to their dwellings. If the locality does not admit of floating the trees they drag them overland for long distances. They gather in summer provisions for the winter, which they keep in front of the entrances to their dwellings. The females bring forth yearly two to five young. The young beavers are very droll creatures. Their cry deceptively resembles that of little children. The beavers are usually caught in iron traps, whose two springs can be pressed apart. The bait which is put on it is a mixture of beaver secretions (*castoreum*) with various spices and some whiskey. A stick or twig is smeared with this, and set upon the trap. The bait must project over the water.
The trap itself is in the water, and fastened to the shore by a chain. In summer, the beavers are lean, and their fur is poor, for which reason they are usually not caught at this time. But in winter they get fat and have thicker hair. Their meat is very palatable. The tails, which are fat all through, are especially regarded as delicacies. Besides the fur, the castoreum found in two pouches on the belly, is very valuable for its use in medicine. A persistent enemy of the beaver is the wolverine (Gulo Luseus), a sort of glutton who attacks not only the winter supplies of the beavers, but often the beavers themselves. Their most dangerous enemy, however, is the tireless trapper. The beaver formerly spread over the greater part of the United States. From the cultivated portions he has disappeared long ago; and in his present home, in the Rocky Mountains, he is beginning to become scarcer. Hundreds of thousands of them have been trapped there in the last decades, and a war of extermination has been waged against the race. The consequence is that they are now found only singly in regions that were formerly well known for their abundance of beavers. It is only in the lands of hostile Indians, the Blackfeet, for instance, that they still exist in greater numbers, because the Indians do not specially occupy themselves with beaver trapping. The furs of beavers caught in the spring are best. However, many trappers catch them in every season. The green skins are first cleaned, then stretched out, dried and folded. A dry beaver pelt
weighs usually from one to two pounds; but there are some of three pounds weight. About sixty beaver skins are bound together in a pack. Two such packs make an ordinary load for a mule. The Hudson’s Bay Company has established more system in beaver trapping within its territories. It allows trapping only at certain seasons, and when beavers get scarce in any neighborhood, trapping is strictly forbidden there for some years. In regions, however, on whose permanent possession the company does not count, it allows the trappers to do as they please. But if trapping is carried on in this ruthless fashion, in fifty years all the beavers there will have disappeared, as have those in the east, and the country will thereby lose a productive branch of commerce.

On the third day after leaving Fort Hall we came again to the Beer Spring. The day was hot; so much the more refreshing the water. In front of us several smoke wreaths arose. We had also discovered other signs of Indians that were ahead of us. Nevertheless, we slept without sense of danger. Our party was too small to permit of a night watch. Exertion by day and by night would have exhausted us too much. The only precaution we took was to tie our animals at night close by; for the rest we relied on good fortune. That we kept our guns in prime condition is a matter of course. On such journeys one gets habituated to his rifle as to a trusty traveling companion. During the march the gun lies across the saddle; when one rests it is always close at hand.
One never leaves camp without taking it as a cane; and at night it is wrapped in the blanket with the sleeper, to be ready for use at the first alarm. As disquieting as such conditions would be in civilized life, here one becomes so habituated to them that I do not remember to have ever slept more peacefully in my life. We no longer used tents, but slept quite unprotected in the open air. The weather, too, had of late become so genial as to leave nothing to be desired. During all the time that we were on the west side of the Rocky Mountains we had very steady weather. In the morning the thermometer was usually between 30° and 40° Fahrenheit; at noon about 80°; at evening about 60°. With this the sky was clear and the west wind cool. When clouds occasionally gathered, the west wind, putting forth more force, scattered the approaching storm, sometimes with thunder and lightening, but generally without rain.
We left the Beer Spring on the morning of August 14th. I drank some cups of the sparkling water, and bade adieu to the place so endeared to me as to an old friend that one does not expect to see again for a long time. Our direction was southeastwardly. We ascended the right bank of the Bear River for four days, following almost the same road which we had taken through the Bear River Valley about a month before, after we had crossed the Rocky Mountains; but this time we generally kept closer to the river. On the first day we were crossing great stretches that had been burnt over, and round about us clouds of smoke were still ascending from the mountains, as to the meaning of which we could not entirely agree. The Indians usually light such fires as signals, when they wish to collect the scattered bands. So they are often regarded as indications that enemies are in the vicinity,
or are making an excursion. The region through which we traveled belonged, it is true, to a friendly Indian tribe, the Snakes; but they are ravaged occasionally by these implacable foes of both white and red men, the Blackfeet. We were therefore on our guard so far as the small number of our party permitted.

The same day we came across a party of trappers, whom we had already met at Fort Hall. There were eight of them, chiefly Canadians, going after beaver. Some of them had their squaws with them. They were bound for Ham's Fork, a mountain stream emptying into the Green River, and, though our road was not the most direct for them, they chose, for company's sake, to travel some days with us. Most of them were old mountaineers of great experience, and they met us with the geniality characteristic of the Canadian. We extended reciprocal hospitalities. There was no fresh meat in camp, but sufficient of dried; also toro, coffee, cocoa and peppermint tea. One of the trappers was a Fleming. He had a squaw with him, of the tribe of the Eutaws, whom he had bought at one time for $500.00, but was disposed to sell for half the purchase price. She was a little, unshapen bundle of fat; but otherwise seemed to have very good qualities, for he recommended her to us in the following terms, characteristic of the cardinal virtues of a squaw: "She is young, gentle, easy, and in first rate order." The trappers seem, unfortunately, to have adopted from the Indians the habit
of looking on their Indian wives as chattels, not persons; and the squaws themselves seem to desire no other position. On the second day we started together, and crossed the Thulick Fork, a streamlet flowing into the Bear River from the north. Under way we met a band of Snake Indians. The first who saw us, took to flight before us, but when we had convinced them that we were friendly disposed, they came in crowds to our noonday camp. The Snakes are a peaceable tribe. Their country is not rich in game, so they gather in the fall divers roots and berries for the winter. They had lighted the fires which we had seen these last days, but only to call their people together for a great hunting party. The Snakes had five horses with them. A race of several miles for a wager was immediately arranged between one of their horses and an American horse. The latter won. In the afternoon, making a rather steep ascent, which afforded us a view of Little Snake Lake, lying to the south, we went along the Bear River on which we camped at night near the mouth of Thomas Fork. The third day we stopped at noon at Smith’s Fork, emptying into the Bear River from the northeast. Near by, there was a rock from which the Blackfeet several years ago had shot into Bonneville’s camp, killing, however, only a mule. Smith’s Fork was the first stream coming from the western mountain slope which we had touched on our former passage through the mountains. From here on we took a direction differing from that of our former trip. Instead of
returning northeastwardly over the mountains, we now turned southeastwardly, in order to reach the Green River some hundreds of miles further down. I have already mentioned, in speaking of our passage over the mountains, that the chain we then crossed runs out to a southern point. At this point, as it seems, the chain is pierced by the great eastern prairie for a distance of forty or fifty miles, not that it is an open plain, but it is certainly much more open, uniform and level than the mountains to the north and south, and does not offer such unsurmountable obstacles as they do to the passage of teams. This, as it were, pierced part of the mountains, is bounded on the south by the snow peaks of the Eutaw Mountains, on the west by the Bear River, and on the east by the Green River. The southeastern direction, which we took from Smith's Fork, carried us right through this region, which is perhaps the most convenient pass over the mountains. Going from there in northeasterly direction, one reaches again, by a rather open road, the Green River and the Sweet Waters; but we preferred to go southeastwardly, and to keep entirely off from our former route. The trappers left us at Smith's Fork. One of them, however, a native of French Switzerland, resolved to go with us. Swiss (so we usually called him) had roamed through the mountains for eleven full years, and suddenly took a notion to try civilization again, and to come with us to St. Louis. He was an experienced mountaineer and good hunter. On his accession, our party numbered
five men. On August 9th, we left Smith's Fork and went still up the Bear River, though at some distance from it, over sandy, rather level ground, to the Muddy, which empties into the Bear River. Here we finally left the Bear River and went southeastwardly toward Black Fork, which has its source in the Eutaw Mountains and flows toward the Green River. The snow peaks of the Eutaw Mountains were on our right. They are not so imposing as those of the Wind River Mountains. The grass in this region as a rule was very poor, the game very scarce. We had not yet seen buffalo on our return trip, and the few antelopes we came across were usually wild. But our leader was fortunate enough to kill one of them on the way to the Black Fork. The nearer we got to Black Fork the more uninteresting we found the country. The ground was a loamy sand. Only cedar groves throve here in which black-tailed deer occur singly. This species is as large as the European deer, with long ears and a black point at the tail. But we did not get a shot at any of them. The Black Fork itself is a clear rushing brook, overgrown with cottonwood, willows and wild currants. Our animals found also splendid grass. From here the country becomes more hilly. Many steep, conical, naked sand hills alternated now and then with little cedar groves. From there we reached Henry's Fork, a small stream flowing into the Green River south of the Black Fork. On the shores grew pine, cottonwood and willows. The grass was good. We fol-
lowed the streamlet to its mouth. We had warm days, and suffered so much from mosquitoes at night, that we often could not get one hour's rest.

On August 15th, we crossed the Green River, which winds its way among precipitous mountains, and at this point can still be easily forded, going slantingly down stream for two more days. The road was generally steep, and led through forests of pine and cedar. The river valley at first was narrow, but widened further on. The geological formation was still the primitive. On August 17th we reached Fort Crockett. It is situated close by the Green River on its left bank. The river valley here is broad, and has good pasturage and sufficient wood. The fort itself is the worst thing of the kind that we have seen on our journey. It is a low one-story building, constructed of wood and clay, with three connecting wings, and no enclosure. Instead of cows the fort had only some goats. In short, the whole establishment appeared somewhat poverty-stricken, for which reason it is also known to the trappers by the name of Fort Misery (Fort de Misere). The fort belongs to three Americans: Thompson, Gray and Sinclair. The latter was at the fort, and received us very kindly but regretted his inability to offer us any supplies. For our store of meat was exhausted, and we had hoped to supply ourselves here with new provisions. But the people at the fort seemed to be worse off than we were. The day before they had bought a lean dog from the Indians for five dollars, and considered
its meat a delicacy. I, too, tried some of it, and found its taste not so bad.

In addition to some trappers and Indians, we found five Americans here, who had started in the spring with a larger party from Peoria, Illinois, to make a settlement on the Columbia River. They had arrived in Westport after our departure, and had journeyed first by the Santa Fe road, then up the Arkansas. But through several quarrels and mishaps, the company, consisting mainly of novices, was split up into several smaller groups. The party we here met had made most progress, and had not yet abandoned the plan of going to the Columbia. But the most difficult part of their journey lay before them. So two of them, Mr. Ogley and Mr. Wood, thought it best to avail themselves of the opportunity to return now offered them, and to join our party. Our party was thereby increased to seven. Among the people of the fort I had expected to meet an old friend of University days who had been roving through the mountains these six years, and who was supposed to be at this time at the fort. To note the metamorphosis from a jovial student at Jena into a trapper would be interesting enough in itself. The presence of S. would have afforded me a pleasure far beyond this, as we had not seen each other for ten years. Unfortunately, I learned that he had gone beaver-trapping and would not return before fall. So we left the fort the next day.
CHAPTER SEVENTEEN
JOURNEY FROM FORT CROCKET TO THE SOUTH FORK

In August 18th we started from Fort Crocket. Our next objective point was the North Fork of the Platte; so our direction was generally east. We went down the Green River for some miles more, and through a ravine six or eight miles long, Brown's Hole, where steep rocks of sandstone and porphyry rose abruptly on either side at a distance of from one hundred to two hundred feet. At the end of this gorge we pitched our camp for the night. The next morning we scraped together the last morsels in our meat bags and ate them in hopes of soon getting fresh meat. But our way led over a desert sand plain with little grass and no game. In the morning we had crossed the Vermillion, a little brook with reddish water, which flows into the Green River, but at evening we did not even find water. We marched on till late at night, and finally laid ourselves down, hungry and thirsty, on the sandy soil. The
next morning we reached the Snake River, and rested up a little. I still found in my food bag a little rice, whereby we cooked ourselves a thin soup. The other empty spaces in our stomachs we filled with wild currants and bullberries that grew along the shores. The latter, also called rabbit berries, are the fruit of the *Shephardia argentea*, a large bush, whose leaves are shiny white on the underside. The red berries in appearance and taste resemble currants, but were still quite unripe. Nevertheless they tasted famously. In the afternoon we got sight of some antelope, but they did not come within range. Our leader and Swiss usually rode on either side to hunt, while we marched slowly forward. As we reached towards evening a creek, where we intended to camp, we suddenly heard the growl of a grizzly bear quite close by. My companions had no ambition to meddle with it; but I could not resist the temptation, and made toward the place whence the sound came. All around was high grass and thick bush, so that I could not see the bear. Of a sudden the beast started up only a few feet in front of me. I quickly raised my gun; the bear stopped short, and instantly disappeared in the tall grass. All this was the matter of a few seconds. I followed the track through the brush as far as my horse could press through, and tried to persuade my companions to beat the bush together on foot; but they showed no disposition that way. Meanwhile, the bear escaped across the river. When our leader rejoined us, we finally went into the thicket, but found
only the tracks of a she-grizzly and two cubs without seeing the animals themselves. So, instead of roast bear we had to content ourselves this evening again with bullberries.

On the next day we did not find even berries. On the fifth day we started off with empty stomachs, but in good spirits. A thick mist covered the country, so that one could see only a few feet ahead. Our leader, who was riding ahead, suddenly sprang from his horse, and only then did we see a great black lump that was moving before us. It was three portly bears that saw us at the same moment, and ran away. We immediately chased after them in different directions, but the fog prevented us from following their tracks. The fog lifted soon after. Before us was a little stream with many cottonwood trees, called the big timber. There we hoped to find game. So Richardson and Swiss took the direct road toward it, while the rest of us went toward a point where we were to meet at noon. We came across some antelope, but they seemed to know of our ravenous hunger and to make sport of us. We kept pretty close to the river and had covered about ten miles, when suddenly one of us, who had lagged somewhat behind, galloped up in hot haste, and shouted to us to make for the timber as fast as we could. Although we ourselves could discover nothing, we could only take the call to mean that enemies were at hand. Without much questioning, we rushed for the timber, only a few hundred steps off, and looked for a position suitable for de-
Journey from Fort Crocket to the South Fork

fense. Our informant assured us now that he had seen a whole band of mounted Indians, one or two miles off, coming toward us in full career. We surmised that they were Blackfeet and prepared for a serious encounter. Our animals we tied to trees close by. For ourselves we looked to our weapons, firmly resolved that we would at least sell our scalps dearly. All this took but a few minutes. Then there was an expectant pause. Nothing stirred as yet. One of us crept the while to the edge of the timber to reconnoiter. "There they come," he suddenly cried, "Come here quick!" We hurried to him, and saw with astonishment a whole troop—not of Blackfeet, to be sure, but—of elk rushing toward us. They had not yet seen us, because we were hid behind bushes; but they scented us, and, with their customary curiosity, ran up to us. All at once our rifles cracked. Several tumbled, and one lay dead in its tracks. With exultation we fell upon the coveted victim. It was a fat elk cow. To live in plenty after several days of fasting, to be sure is pleasanter than being scalped by Blackfeet; still our informant had to bear many a joke on account of his defective vision. Such mistakes, however, are not uncommon in mountain life. At a distance an elk, especially if he throws back his head, looks very much like a horseman. Meanwhile our two hunters joined us, and helped us carve.

Quite systematically we now began to arrange our bill of fare. First soup appeared on the table, then cooked meat, then various roasts, and finally sau-
sages stuffed with liver, and marrow bones. Pauses were made between the courses. Our appetite was all that could be desired. Whoever had seen us in civilized life give such substantial demonstrations of appetite as we did, would have set us down for a band of hungry wolves or gluttons. But here the whole thing seemed quite natural.

After we had feasted and rested for about four hours, we moved on again, to promote digestion, and covered about eight miles, going along the river. "Indians!" suddenly exclaimed our leader. We listened, and heard to one side Indian speech. We approached carefully, and found a little party, consisting of Captain Walker, whom we had met at the rendezvous, and some trappers and Indians, who had come here some days ago to get dried meat. Captain Walker is an original among mountain loafers. He has roamed through the mountains, chiefly on his own hook, in all directions, and has made a side trip to California. He has taken such a fancy to this life that it is unlikely that he ever returns to civilization. We found him with pipe in mouth, and clad with nothing but a blanket, for which he excused himself to us, because his shirt was in the wash. He had sufficient fresh buffalo meat, and invited us to the rib of a fat cow. We heard, too, that great numbers of buffalo herds were before us, and that we would suffer no further want. The next morning we left the Captain's party and went over hilly prairie to Savory's Fork, a branch of the Little Snake River. On the
way we saw many single buffalo, and small herds; and Swiss, who is unrivaled in running down buffalo, killed a cow for us. The buffalo herds now became more and more frequent, and almost every day we shot a fat cow, of which we took only the best pieces.

On the evening of August 25th we reached again the left shore of the North Fork of the Platte, at a point we had not touched on our journey up, and in bee line perhaps one hundred miles distant from Fort Laramie. The river here was broad, but shallow, and we crossed it with ease. But we left it immediately, to go in southeastern direction to the South Fork. We reached it in about eight days. On the first we crossed with moderate ascensions the mountains belonging to the North Platte; on the fifth day, a second chain, the watershed between the North Fork and South Fork, over which there is also a convenient pass. The geological formations were again sand and lime stone. Chiefly pine grew on the mountains. On the seventh day we reached Powder Cache Creek, a stream flowing into the South Fork; and on the ninth day the South Fork itself. The country between the North Fork and the South Fork is mainly a broad plateau with sandy soil, sparse grass, and a few birch groves like oases in the midst of the prairie. Buffalo abounded, and we lived in plenty, for almost daily we shot a cow. We also encountered several bears. Once, when we had pitched our evening camp near a little grove, a great grizzly bear approached unobserved within twenty feet of our camp. At the
first alarm, before we had a chance to shoot, he was back in the woods, and it was too dark to follow him there. Another time, just as we were cresting a hill, we saw three grizzlies—a she bear and her two cubs—cozily at play. Richardson and Swiss, who were ahead, immediately wounded two of them without killing them, and followed them on horseback. My horse had been so lame for some days past that I could take no part in the hunt. Our hunters raced after the bears, and were soon out of sight. The rest of us went slowly forward. After a time Richardson came back with the skin of one of the bears, but Swiss stayed out all night. Only during the next morning did he rejoin us, and told us how first he had chased the bear, and then the bear him. His solitary pistol missed fire, and only by repeated snapping of the flint lock could he keep the enraged beast at bay, until he could get time to pour fresh powder on the pan and lay his pursuer low.

On September 3rd we came quite unexpectedly to the left bank of the South Fork and crossed the river. On the right bank there are here three forts, only some miles apart. Penn’s [Bent’s] and St. Vrain’s fort, Vasquez and Sublett’s and Lobdon’s fort. The construction is the customary one; the outer walls are of half-baked brick. There is much rivalry and enmity between the three forts. In the first fort we found part of the scattered Columbia party from Peoria. In the second I met the well-known Fitzpatrick, who has passed through many an adventure during his
life in the mountains. He has a spare, bony figure, a face full of expression, and white hair; his whole demeanor reveals strong passions. We remained in the neighborhood of the forts for about three days. In the meanwhile I had my horse shod. For want of shoes it had become quite lame. Among the news of the day which we heard in the forts we were most interested in the account of a recent battle between the Pawnees and the Sioux, wherein only one of the latter was killed, while about eighty Pawnees lost their scalps. The victorious Sioux were still roving about the South Fork, and were very much embittered against all whites, because the man they lost was thought to have been killed by a white man who was with the Pawnees. We were therefore advised to abandon our plan of further following the South Fork and to strike out for the Arkansas. The evening before our departure, several owners of the forts arrived, bringing a new cargo of goods from the United States. Goods are usually transported to this place in great ox teams, and the same road is taken which we are about to follow to the boundary of Missouri.
CHAPTER EIGHTEEN

RETURN TO THE BOUNDARY OF MISSOURI

On September 7th we left the forts on the South Fork to go southeastwardly to the Arkansas. We went up the South Fork for only half a day. Southwestwardly, beyond the left bank of the Platte, a high mountain chain arose, whose more distant peaks were in part covered with snow, forming a beautiful background for the Platte with its fringe of cottonwood, and for the wide plain that stretched along its right bank. On the fourth day we crossed the divide between the waters of the South Fork and of the Arkansas. The ground was somewhat hilly, with scattered pine groves. In the wide prairie stretching from there toward the Arkansas we saw again our first herds of buffalo. We met here two lodges of Arapahoes, who had just shot a cow, and gave us a hospitable invitation. The squaws were still cutting it up. We smoked the while, and, in the absence of wood, collected buffalo chips where-
on to roast the ribs. After our meal we started off in company. The squaws packed their animals with admirable economy. One squaw not only loaded a horse with about three hundred pounds of baggage, but seated herself with some children on the same animal, maintaining the equilibrium with motions of her own body. A dog, too, had to carry about fifty pounds. At evening we camped together on a sandy creek. The Indians were also on their way to the Arkansas; but they traveled too slow for us, so we parted from them on the next morning, and reached in two days the left bank of the Arkansas. The Arkansas with its surroundings bears much resemblance to the Platte. It arises west of the same mountain chain as the Platte, and flows in eastwardly direction toward the Mississippi. Its shores at times are bare, at times have a growth of cotton trees. On either side stretches out a rolling prairie. The water is swift, but shallow, and is here navigable only for small boats. Many catfish are in it. We went down the left bank of the river about sixty miles to Penn's [Bent's] Fort. This country presents little variety. Along the shore we found at times wild grapes. They were larger than I had ever seen them in the United States, and tasted deliciously to us, though they were still quite sour. So also we found the red fruit of a species of cactus with a sweet mucous taste. The grass became constantly drier, only along the water did we find some fresh patches. Whenever set afire the tall parched grass burned like tinder. Through
carelessness of one of the company the grass near our camp was once set afire and we could save our baggage only with difficulty. Buffalo became more and more scarce. On September 15th we reached Penn's Fort. It lies on the left bank of the Arkansas, close by the river, and is the finest and largest fort which we have seen on this journey. The outer wall is built of imperfectly burnt brick; on two sides arise two little towers with loop holes. In the ample court yard were many barn-yard fowl. In addition, they have cattle, sheep and goats, and three buffalo calves, that peacefully graze with the rest of the herd. At the time they had no superfluity of horses at the fort, because only a short time before a band of Indians with incredible audacity had driven away a hundred head of horses. The fort is about one hundred and fifty miles from Taos in Mexico, and about three hundred from Santa Fe. Little expeditions go frequently to the former city, to barter for flour, bread, beans, sugar, etc. Then, too, much merchandise is annually transported by ox-teams to this point from the boundary of Missouri, which is only six hundred miles distant. Four miles above, there is a second smaller fort, Peebles' Fort, occupied chiefly by French and Mexicans. We bought here some Spanish flour, which rather deserved to be called bran; but as our appetite was none too squeamish, we enjoyed it immensely. On the 17th we started off again. The many wagons which go each year from Missouri to the forts on the Arkansas have made a tolerably plain road, generally
following the river, and uniting about one hundred and fifty miles below with the Santa Fe trail. This was the road we followed. The region was the same monotonous, hilly, treeless, sandy prairie as before. On the second day we reached the so-called big timber, a spot on the Arkansas, some miles in extent, plentifully covered with trees. So much the scantier is the wood lower down. The Comanches, who play in the south a part similar to that of the Blackfeet in the north, are said to rove freely in this vicinity; but we had the pleasure to be spared making their acquaintance. On the fifth day we again came across herds of buffalo. On the sixth we reached the Santa Fe road. This broad road, almost a highway, has been gradually made by the trading expeditions which annually leave Missouri's border with many ox-teams for the Mexican city. The distance from Independence to Santa Fe is estimated at nine hundred miles. The road runs southwestwardly over the prairie. It crosses the Arkansas a little short of half way to Santa Fe. The river at that point is rather shallow, and the crossing is said to be not very difficult. At this ford we came upon the Santa Fe road, and followed it to the boundary of Missouri. The road from here on turned gradually from the river toward little streams that flow from the north into the Arkansas. The first days we went over a wide plateau, where we found countless buffalo, but little water. On September 26th we reached Pawnee Fork; the next day, Ash Creek, near which there is a solitary rock in the prai-
rie, which is accounted as half way between the boundary of Missouri and Penn's Fort, and on which some travelers have marked their names. On the 28th we passed Walnut Creek. An unlucky accident separated me here from my companions. My horse had broken down a good deal of late, and so I had to walk more than was to my liking. As the party were late about starting the next morning, I took my horse by the bridle and started ahead, in the expectation that the mounted party would soon overtake me. Later on I tried to drive my animals before me, but they often ran to one side and probably in this way brought me on a wrong road, which became less marked after a few miles, and finally totally ran out. It was foggy, and I could discover nothing of my companions. So, in order not to lose time unnecessarily, I determined to push on in an eastern direction, hoping in this way to reach the road before long. After I had gone some miles further, I saw a great swamp lying before me. Toward north and south I could see no end to it, but it seemed to extend only a few miles toward the east. The water was not very deep and the ground pretty firm. So I resolved to try at every risk to get through in an eastern direction. I rode my horse forward at the slowest pace, but it often slid down on grass and reeds. My pack animal I led after me with a rope. All sorts of water birds swarmed around from all sides. Never have I seen together such quantities of swans, cranes, pelicans, geese and ducks, as were here. The swamp
Return to the Boundary of Missouri

was fairly covered with them, and they seemed to feel themselves so safe that I could have killed hundreds of them with the shot barrel of my double-barreled weapon. Just at that time, however, I was less interested in hunting than in getting out of the confounded swamp, for my horse was visibly becoming exhausted, and I was making barely a mile an hour. With trouble and difficulty I finally reached what I had thought from a distance to be trees; but it turned out to be only tall reeds, and the second half of the swamp still lay before me. My horse now would not budge for either whip or spur; so I dismounted and dragged it after me by the bridle. The water sometimes reached to my chest. With slow and measured step I moved onward; my dog swam usually in the rear of our stately procession. The sun was sinking when I finally reached the other side of the swamp. Before me lay a little chain of hills and on my side of them was a little creek with some timber. To this I managed to drive my exhausted animals. The solitude in which I was so suddenly placed, would have much disquieted me at the beginning of the journey; but now it had a certain charm for me. I made a fire in a somewhat hidden place, and dried myself out. The next morning, just as I was eating breakfast, a herd of deer visited me. They came quite close to me and gazed at me for quite a while; but I did not care to take a shot at them, partly because I still had dried meat on hand, and partly because the neighborhood is at times frequented by the Pawnees.
True to my resolution, I continued going on in an eastern direction. The grass in the prairie was often as tall as a man, and made walking very troublesome. Nowhere could a sign of a road be seen. It seemed as if no human being had ever set foot in this country. I passed several brooks, seemingly insignificant, but with such muddy bottoms that my animals sank into them, and I had to unpack my mule on several occasions. In the afternoon I reached a larger creek with much timber, probably Cow Creek, and camped there. My animals were too much fatigued, so I spent also the following day there; dried my baggage; and made reflections upon solitude. The next morning I started early. On the road I saw the last buffaloes of the trip, got mired a few times in little creeks, and camped at night on the Little Arkansas, a creek with terribly steep banks. Only after long search did I find a place to water my animals. The next morning I couldn't find my animals in the high grass. Only on climbing a tree did I discover them at a mile's distance. With a load, it was impossible to get my mule over the creek; so I carried my baggage myself to the other shore, and then drove my animals over. After I had continued some hours steadily in an eastern direction through the prairie, I came suddenly and quite unexpectedly upon the Santa Fe road. My animals were no less pleased than was I. I found traces of my traveling companions. That same day I camped, for want of better water, at a puddle, inhabited by countless frogs. The
next morning (it was the sixth since I had been separated from my party), I went twenty-five miles on a stretch to Cottonwood Creek, a wooded stream, that arches at this point into a pleasant semi-circle. I was looking about for a camping place, when I heard a shot in a hollow close by me. Cocking my rifle I rode closer, and found my traveling companions again, who told me that they had waited for me a day at the Little Arkansas, and had finally concluded that I had gone on ahead.

From here on, it was about two hundred miles to the border. United again, we started the next day (October 5) and covered thirty miles before reaching water. My horse was now so exhausted that I could hardly bring it into camp. On the second day we reached Council Grove. That is the name of a dense grove of deciduous trees, extending for some miles along a creek of the same name. The Santa Fe caravans usually stop here to elect their leaders and to organize: hence the name. It is about one hundred and fifty miles from the border. In these woods deer, turkeys and squirrels are found. It rained continuously; so we stayed there several days. We started again on October 9th. On the 11th we reached the Osage, a stream that was almost dried up, with wood in plenty. It was impossible to get my horse to stir from here. He grazed greedily, but from sheer fatigue would not move from the spot. "The horse has stopped," is the technical expression of the mountaineers for this condition. When left to itself the
animal usually recovers after a while, but I could not wait for that. I had to abandon this worthy animal which had carried me some thousands of miles. Some weeks before we had abandoned two other horses in the same way. However, one of my companions lent me another horse. The country gradually became more familiar to us. On October 13th we rested at noon at the same place as after our departure from Sapling Grove. Toward night we camped in the vicinity of Sapling Grove. As yet we had seen neither farms nor human beings, but the cow bells which we heard at evening near us, made sweetest music for us. The next morning we again passed the farms of the Shawnees to our starting point, Westport. Before entering the village we fired a salute from all our guns, which immediately brought out our old acquaintances.

We had passed nearly six months in the wilderness. In that time we had covered under daily hardships about three thousand miles, had slept on the bare ground in all kinds of weather, and had lived almost exclusively on meat. Nevertheless, we all fairly overflowed with health, while the many sallow fever faces we here met sufficiently informed us that the summer had been very sickly. In Westport, we rested for a while. All, even the commonest, pleasures of civilized life had a double charm for us. After eight days I rode with three more of my traveling companions three hundred miles further, to St. Louis, where we made our return on the last day of October.
CHAPTER NINETEEN

THE INDIANS

HEN a nation has perished, it arouses the interest of posterity, and historians and antiquarians exhaust themselves in researches as to the character of such a race. But the existence of a people that is merely near extinction, however characteristic its life may be, and however instructive its history as bearing on the study of the development of the human race, does not seem to call forth similar interest. This may be one of the reasons why we have not as yet, so far as I know, any adequate history of this race of man, once spread so far, which had the whole continent of America in its possession, until the advancing Caucasian race crowded them back. I do not deny the difficulties besetting such an undertaking, on account of our want of knowledge of many Indian languages, their own ignorance concerning their origin and history, the continuing hostility of many tribes toward all whites, and the hardships involved in traveling and living among them;
but it is certainly true that on more thorough study of this people a more satisfactory history could be written now than in, say, a hundred years, when mere shadows of this perished race will be moving among us. The United States owe it to themselves and to this expelled race, to collect as soon as may be all that is worthy of preservation as to this people, and transmit it as a *momento mori* to posterity.

The Indians differ in so many bodily qualities from the rest of human kind, that they have been assigned a place among the five human races into which naturalists have divided the mammalian family, man. Here is not the place to consider whether these five races are aboriginal, or whether we are descended from a common stock, from which the five races were gradually developed. As little can I decide whether, in the former case, the Indians are to be considered really aboriginal, or descendents of the Mongolian race, emigrating from Northern Asia to America. Passing this by, the characteristic differences, on account of which they are designated as a separate race, the American, are as follows: The skin of the Indian is brown-red, generally tan color, cinnamon brown, or dark copper red, but sometimes bronze colored. His hair black, straight and coarse. The face is broad, but not flattened. The features are strongly marked. The eyes are deep-seated and rather horizontal. The forehead is not high, but compressed from the sides. The facial angle is about eighty degrees. The nose is rather broad and promi-
nent, usually straight, but sometimes with the Roman bend. The cheek bones are very high and prominent, the chin almost square. The beard is thin, the chief reason for which may be their habit of plucking it out early.

There has been much fabulous talk about the Indian character. Some pose them as Roman heroes and unspoiled sons of Nature; others as cowards and the scum of humanity. The truth is between these extremes. First of all, we must differentiate between the Indians with some of the varnish of civilization and the cruder but freer tribes of the Far West. The former have no longer a marked character. The pursuit of agriculture, forced on them by necessity, has eradicated the virile traits of their old hunter's life, without inoculating them with the mild poison of civilization. To get a correct conception of the character of the freer North American Indian tribes, let us consider somewhat more closely the mode of life and customs common to them all.

The Indians inhabiting the western territories of the United States are split into numerous separate tribes, that consider themselves entirely independent of each other. They all live by hunting, especially buffalo hunting; and each tribe claims a wide territory with very vague boundaries as its own. In addition they recognize certain districts, where buffalo usually abound, as common hunting and war ground, where various tribes roam at will, subjecting their conflicting rights to the test of strength. Between
the tribes there is perpetual warfare. Each tribe
must have an hereditary enemy, whose wrong must
be avenged in blood. Their warfare is rarely carried
on by open attack or battle; but they stalk each other
till one party succeeds in surprising and massacring
the other. When attacking, they raise a fearsome
shrilling cry, the so-called war whoop. The slain are
scalped, that is, the scalp is circularly incised in the
hairy part of the head and torn from the skull. The
scalp of an enemy is the highest triumph of the In-
dian. The more scalps an Indian can show, the high-
er does he stand in the esteem of his tribe. Some-
times, when the animosity is not very fierce, they sim-
ply make prisoners of their enemies, and treat them
then as slaves. Such is usually the fate of women.
The chief weapon of the Indian is the bow and arrow.
Through trade with the whites many of them have
now obtained fire arms, the use of which they have
well learned. However, all trading companies sell
them only short, poorly-made carbines, and no rifles.
Another weapon, peculiar to the Indian, is the toma-
hawk, a small hatchet which they use in close fight,
and likewise purchase at the forts. In former times
they made them themselves of pointed stones. Often
the tomahawk is made so as to serve also as a pipe
for smoking. But commonly they use for this pur-
pose special long pipes, which they esteem as great
articles of luxury, and from which the owners will
part at no price. The bowl of such pipes is made of
a red clay which is found on the Upper Missouri, and
which forms an article of commerce between eastern and western tribes. Smoking is a conventional ceremonial of salutation. He who has been admitted to smoke the so-called pipe of peace is in no danger. Ordinarily the Indians smoke only chewing tobacco mixed with various herbs; but if no tobacco is to be had, they smoke sumach and other stupifying herbs. Every Indian tribe has a chief, which honor is hereditary in his family; but for a warlike expedition they often choose special leaders. In all important matters the chief must consult with the warriors of the tribe; but otherwise can act quite arbitrarily, especially if distinguished for bravery. The religious ceremonials are in every tribe under the guidance of a so-called medicine man, who knows how to impose on the people through all kinds of hocus-pocus. The religious ideas of the Indians are still quite crude. Like all people in an immature state, they believe in a good and bad principle, and continued existence after death, in which the brave have unalloyed enjoyment of all the good things of this life. Various wild dances and songs are an important element in their religious ceremonies.

Every Indian tribe has its own speech. All these languages seem derived from a common origin; but owing to the segregation of the tribes and the want of any writing, resemblances may often be well nigh obliterated. The Indian's style of speech is a mixture of laconic brevity and picturesque imagery.
comparisons are taken from surrounding nature, and are generally very appropriate.

Concerning the daily life of the Indians we have often had occasion to make remarks in prior sketches. Most tribes live only in tents and lead a wandering hunter's existence. One family usually lives in every tent. Polygamy is sanctioned in all tribes, but only the wealthier can put it in practice. The squaws as a rule are anything but handsome, but their uncleanliness may serve to hide their charms. The squaws are treated not much better than slaves. There is no appeal from the will of the lord and master. War and the hunt are the only occupations for a man; everything else is for the squaws. The squaw must attend to the horses, set up the tent and take it down, must care for the baggage, must cut up the game, attend to the kitchen, tan leather, make clothes and moccasins, etc. In spite of these multifarious demands on their activity, they are generally indefatigable and good-natured and bear the ill-temper of their masters, oft manifesting itself by blows, with Indian fortitude. Children are soon left to themselves. I have never seen that they were beaten. They usually learn riding before walking; but in the latter, too, they develop great speed and endurance. Although their muscles do not appear especially prominent, they seem to have a degree of toughness which qualifies them for extraordinary exertions. The women are no less hardened than the men, but with them the full development of the body is hampered by too early
The Indians

marriage, often at the age of ten and eleven. These hardy children of nature suffer little from sickness, though contagious diseases, like the small-pox, at times destroy great numbers of them. Their medicines consist simply in herbs. They also have great confidence in steam baths, which they take in so-called sweat lodges, in which water is poured on hot stones.

The wealth of an Indian consists chiefly in horses. Their horses come from Mexico, and are of as hardy stock as the Indians themselves. Whoever owns no horses tries to steal some. All stealing is permissible among the Indians, but horse-stealing is honorable. Such bands of horse thieves will often follow another tribe or a caravan of whites for weeks and months, till they find an opportunity to drive off the whole herd. In addition to horses every Indian usually owns a great number of dogs, useful partly to carry loads, partly, in absence of other meat, for food. In their form and character they are closely related to the wolf, from whom they are probably derived.

The clothing of the Indians usually consists of leathern leggings and a blanket or buffalo robe, to which is added in the case of the women, a garment, also of leather, reaching from the breast to the knee. Their light leather shoes, the so-called moccasins, the squaws make with great skill, using no other tool than the awl and the thread obtained from the sinews of the buffalo. Both sexes have the head uncovered. Vanity and love of finery is more deep-seated with these children of nature—if indeed such a thing is
possible—than with the children of civilization. But one can note a vast range from the savage often wholly naked, to the complete Indian dandy, who, with his face painted with cinnabar, his hair decked with feathers, and his body adorned with beads and brass wire, will gaze for hours in a broken bit of mirror, admiring the masterpiece of all creation.

What, then, are the special characteristics of the Indians? Physically they consist, in addition to the racial marks above given, of admirable strength, skill and endurance, together with keenness of senses in highest development. An Indian sees his enemy before the white man discovers him with his spy glass. His ear upon the ground, he interprets suspicious sounds at great distances. His keen sense of smell scents smoke and traces of the enemy, before the white man has any suspicion thereof. Among the characteristics of the man within this body we are first struck by the pride with which he looks down upon his surroundings, especially upon the pale face. "The proudest thing in the world is an Indian," an old mountaineer once said to me; and whoever has seen a free Indian going through the streets of a populous city, which he is perhaps seeing for the first time, with firm, self-reliant step and military bearing, gazing straight ahead and seemingly indifferent to all around him, will admit that the opinion just quoted is not without foundation. This pride seems to me nothing more than a consciousness of his self-reliant independence. The Indian, born and nurtured
in the broad prairie or in the mountains, familiar from childhood with the dangers of the wild life of the hunter and warrior, choosing his country wherever he can maintain himself by force of arms, and his shelter where the sky arches over him, must naturally have a sense of self-reliance vastly differing from that of the effeminate civilized being, born, nurtured and buried amid a thousand conditions of dependence. The Indian feels himself free, his wants are few, his resources lie within himself. This consciousness fills him with such pride and with such contempt for all civilization. But his indifference is often seeming rather than real, and is based on a marked Indian characteristic, self-control. The passions of the Indian are as stormy, as eager to blaze out as they can be with any human being, but by extraordinary self-control he maintains all the outward appearance of calmness. An Indian will often endure, without the slightest manifestation of pain, the most torturing modes of death, simply to defy his enemy. The Indian who seeks to conceal his feelings or his plans will not let his left hand know what his right hand does; neither kindness nor threats can cause him to break silence. On the other hand, this self-control often serves as a cloak for guile and treachery. But it must be confessed that many acts of treachery toward Indians can be charged against the whites; so much so as to often seem to afford justification for the cruelties of the former. Acquaintance with the whites seems also to have diminished the high esteem
in which hospitality was held among them. Still even now it is custom in most tribes that if even an hereditary enemy seeks refuge in the tent of the chief, not a hair of his head is hurt; though, to be sure, if he is found next day in the prairie or on the mountain his scalp is infallibly lost. The question has often been asked whether the Indian has real courage or is cowardly by nature. Whoever knows the Indian's mode of life must concede if courage is by any means capable of development in a human being, such a life is calculated to inspire a man with fearlessness and contempt of death. That the Indians usually succumb to the weapons of civilization, and the fact that a few determined whites repel their attacks even in greatly superior numbers, is not proof against their courage, often verging on fool-hardiness. Their system of waging war, moreover, often causes us to regard that as cowardice which is really plan and calculation. They consider it, for instance, folly to advance toward the enemy in open battle array; and Black Hawk, the renowned chief of the Sacs and Foxes, when present at a great maneuver in New York, during which several batteries were stormed, could not wonder enough at the idiocy of sacrificing hundreds of warriors in this way, since the batteries might be taken at night by surprise without loss of a man.

The Indian tribes which now rove through the great Missouri territory are chiefly the Kansas, the Sioux, and the Pawnees. In and about the Rocky
Mountains and beyond them, in Oregon, live the Crows, the Blackfeet, the Eutaws, the Snakes, the Nez Percés, the Flatheads, the Pannacks, etc. Of these tribes some are friendly to the whites; with others the friendship is dubious; while still others are at open enmity with them. The last is especially true of the Blackfeet, the terror of trappers and travelers. The Blackfeet rove about the headwaters of the Missouri on either side of the Rocky Mountains, and are the sworn foes not only of the whites, but also of all other Indians. They consider themselves the lords of creation, and wage war with all who will not submit to them. Their boldness and audacity causes them to be feared far and near. Most of the whites who perish in the Rocky Mountains are brained by their tomahawks. Small parties of trappers are pursued by them relentlessly; but they also often attack larger groups, and engage them in skirmishes. When on their expeditions they unexpectedly encounter a party they either attack or take to flight, for all whom they meet are sure to be enemies. Through this unrelenting hate toward all who are not of their tribe, which they put in practice to its utmost consequences, the Blackfeet have become a word of terror among the mountaineers; not unlike that which the grizzly bear in the animal kingdom has won for himself. However, through ceaseless warfare, and still more through disease, especially small-pox, which ran its course among them some years ago, the tribe has been much reduced, and has become less formidable.
The ultimate destiny of these wild tribes, now hunting unrestrained through the Far West of the United States, can be foretold almost to a certainty, from the fate, already accomplished, of the eastern Indian tribes, where in the contact of races, true civilization collides with crude forces of nature, the latter must succumb. Civilization, steadily pressing forward toward the West, has driven the Indians step by step before it. Where war with the whites and with each other was not enough to reduce their numbers, the result was brought about by disease and ardent spirits. Whole tribes, that formerly dwelt in States where civilization is now permanently established, whose names perhaps were then as terrifying to the pioneers of the West as is now the word Blackfeet to the mountaineer, have entirely disappeared, leaving scarce a trace of their name behind. Some few have accommodated themselves to agriculture, and still live among us, the shadows of a vanished race. The western tribes still have, as yet, a bulwark against the advance of civilization in the boundless, generally sandy prairie, which extends for about a thousand miles from the boundary of the State of Missouri to the foot of the Rocky Mountains, in those mountains themselves, and in the broad sandy plains beyond them. But those obstacles are not insurmountable. At least half of the great prairie is capable of cultivation; and the want of wood, attributable less to the nature of the soil than to the frequent prairie fires and to the quantities of game, espe-
cially the herds of buffalo, will be less sensibly felt with the gradual progress of civilization. Illinois in former days had many treeless tracts that became wooded by natural means as the soil was cultivated. But the greatest danger threatens the Indians from the West; from the settlements on the Columbia. Along the Columbia River various Indian tribes have already perished; the rest live in entire dependence on the whites.

So the waves of civilization will draw nearer and nearer from the East and from the West, till they cover the sandy plains, and cast their spray on the feet of the Rockies. The few fierce tribes who may have maintained themselves until that time in the mountains, may offer some resistance to the progress of the waves, but the swelling flood will rise higher and higher, till at last they are buried beneath it. The buffalo and the antelope will be buried with them; and the bloody tomahawk will be buried too. But for all that there will be no smoking of the pipe of peace; for the new generation with the virtues of civilization will bring also its vices. It will ransack the bowels of the mountains to bring to light the most precious of all metals, which, when brought to the light, will arouse strife and envy and all ignoble passions, and the sons of civilization will be no happier than their red brethren who have perished.
POSTSCRIPT.

In the foregoing sketches I submit to the public some off-hand observations on a journey that was made off-hand. I make no claim to a scientific treatment of my subject. Neither my time, nor my means, nor my knowledge in the natural sciences, of which I never made a specific study, would permit of this. My purpose in writing these sketches was solely to give the reader an appreciable picture of the unknown west of the United States with the peculiarities of the country and the still greater peculiarities of its inhabitants, and to present in suitable groups, as it were through a panorama, those objects which passed one by one before my eyes, with often fatiguing slowness. With romantic trimmings the picture might perhaps have been made more attractive to some readers, but I have preferred to copy nature and life as faithfully as possible, and to give due heed to the shades as well as the lights. If I have accomplished this purpose, however imperfectly, I shall feel adequately compensated for the fatigues and dangers of such a trip.

As an aid for following the geography I have appended a little map of my journey, in which are indicated the trend of the Rocky Mountains and of the streams arising in them, filled in with more detail at the point where I crossed the Rockies. As there are
no maps of these parts of the United States based on accurate measurements, I of course cannot vouch for the geographical correctness of my plat. Still it may serve the purpose of giving a better idea of the country. By the way, in all probability we shall have in a few years a geographically correct map of the Missouri Territory and the Oregon Territory of the United States, since the Congress of the United States by a resolution only recently adopted has authorized the President to cause a scientific exploration of that region, and to take measures adequate for securing the country. It is reported that in consequence of this resolution three military forts are to be erected between Missouri and the foot of the Rocky Mountains, and that a scientific expedition, calculated for several years' stay, is to be sent out there. Such measures will soon afford travelers in these regions greater security, will increase our knowledge of the country, and will thus open a road for civilization.

A transformation of this remarkable country seems then at hand. It is perhaps only a few years until the plow upturns the virgin soil, which is now only touched by the lightfooted Indian or the hoof of wild animals. Every decade will change the character of the country materially, and in a hundred years perhaps the present narratives of mountain life may sound like fairy tales.