## THE UNION PACIFIC RAILROAD:

a trip agross the north amerigan continent from omaha to ogden.

## Westward the course of Empire takes its way.

BISHOP BERKELEY.
T. NELSON AND SONS, 42 BLEECKER STREET, NEW YORK.

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*** A companion Guide, under the title of "Nelsons" Pictorial Guide-Book to the Central Pacific Railroad," is also published in this Series; and a "Pictorial Guide-Book to the Yosemite Valley." With Illustrations from Photographs and other sources.


## THE UNION PACIFIC RAILROAD.

## I.-GENERAL INFORMATION.

The Union Pacific Railroad begins at Omaha. How to reach Omaha is therefore the tourist's first difficulty. But as at this important point numerous railroads converge, he need but consult their Time-tables to fix upon the route most agreeable or convenient to him. One fact, however, he must bear in mind-namely, that from Boston or New York he must make his way to Council Bluffs.

Now, Councl Bluffs is the principal city of Pottawattomie County, Iowa, and lies on the eastern side of the Missouri River, exactly opposite Omaha. It derives its name from the bold heights at whose base it is situated; is about three miles east of the great Missouri, and four
miles from Omaha; and contains about 13,500 inhabitants. It is described as one of the oldest towns in Western Iowa. But American notions of antiquity do not correspond with European, and the Englishman will be astonished to find that it does not date from a more remote epoch than 1845 or 1846, when it was a Mormon settlement, and known as Kanesville. In 1853 it obtained a charter and the prouder designation of the "City of Council Bluffs," the latter referring to a council held here by the explorers Lewis and Clark, with the Indians, in 1804.

Council Bluffs will soon be connected with Omaha by a bridge, the work of the Union Pacific Railroad. Communication was formerly maintained by steam ferry boats.

The town includes within her limits twenty-four square miles-extending north and south four miles, east and
west six miles. It boasts of four newspapers (1871)-the Bugle, the Nonpareil, the Council Bluffs Times, and the German Post; of numerous schools; of fifteen hotels; and of a court-house, built at an expense of $\$ 75,000$, and described as a very fine structure. The churches are solid and spacious, but not architecturally beautiful. A " mammoth hotel" was " building" in September 1870; probably by this time it is "built."
The "change" of passengers and baggage which takes place at Council Bluffs, and must continue to take place until the bridge is erected, is one of the inconveniences a traveller grumbles at, but endures. The change, however, being safely accomplished, and the ferry crossed, the traveller finds himself in the flourishing city of OmaHa, and, within about forty yards from the quay, at the eastern terminus of the Union Pacific Railroad.

## STATIONS ON THE UNION PACIFIC RAILROAD.

| Elevation above Sea-level. | Distance from Omaha, | Name of Station. | Distance from San Francisco. |
| :---: | :---: | :---: | :---: |
| 966 |  | Omaha | 1914 |
| 1142 | 4 | Summit Siding | 1910 |
| 976 | 10 | Gillmore | . 1904 |


| Elevation above Sea-level | Distance from Omaha. | Name of Station. | Distance from San |
| :---: | :---: | :---: | :---: |
| Sea-level 972 | Omaha. $15$ |  | Francisco. 1898 |
| 1150 | 29 | Elkhorn | 1885 |
| 1120 | 35 | Valley | 1879 |
| 1176 | 47 | Fremont | 1867 |
| 1220 | 54 | Ketchum | 1860 |
| 1259 | 62 | North Bend | 1852 |
| 1335 | 76 | Schuyler. | 1838 |
|  | 84 | Cooper. | 1830 |
| 1432 | 92 | Columbus. | 1822 |
| 1470 | 99 | Jackson | 1815 |
| 1534 | 109 | Silver Creek Station | 1805 |
| 1610 | 121 | Clark's Station | 1798 |
| 1686 | 132 | Lone Tree Station. | 1782 |
| 1760 | 142 | Chapman's Station | 1772 |
| 1850 | 154 | Grand Island | 1760 |
| 1907 | 162 | Pawnee | 1752 |
| 1974 | 172 | Wood River Station. | 1742 |
| 2046 | 183 | Gibbon | 1731 |
| 2106 | 191 | Kearney | 1723 |
| 2170 | 201 | Stevenson | 1713 |
| 2241 | 212 | Elm Creek | 1702 |
| 2305 | 221 | Overton | 1693 |
| 2370 | 230 | Plum Creek. | 1684 |
| 2440 | 240 | Cayote | 1674 |
| 2511 | 250 | Willow Island | 1664 |
| 2570 | 260 | Warren. | $165 \$$ |




| Elevation above Sea-level. |  | Name of Station. | Distance <br> from San <br> Francisco. | Elevation above Sea-level. | Distance from Omaha. | Name of Station. | Distance from San Francisco. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5555 | 1206 | Loray | 708 | 4375 | 1422 | Iron Point. | 492 |
| 5970 | 1214 | .. Toano | 700 | 4387 | 1434 | Golconda. | 480 |
|  |  |  |  | 4315 | 1445 | Tule | 468 |
|  |  | HUMBOLDT DIVISION. |  | 4331 | 1451 | Winnemucca | 463 |
| 6183 | 1224 | .. Pequop | .. 690 |  |  |  |  |
| 6153 | 1230 | .. Otego... | .. 684 |  |  | TRUCKEE DIVISION. |  |
| 6004 | 1236 | .. Independence | . 378 | 4322 | 1461 | Rose Creek | 453 |
| 6118 | 1242 | .. Moor's | 672 | 4327 | 1472 | Raspberry Creek | 442 |
| 5978 | 1244 | .. Cedar. | 670 | 4228 | 1479 | Mill Creek. | 435 |
| 5628 | 1250 | .. Wells | 664 | 4233 | 1492 | Humboldt | 422 |
| 5483 | 1258 | Tulasco | 656 | 4256 | 1504 | Rye Patch | 410 |
| 5340 | 1271 | Deeth | 643 | 4182 | 1514 | Oreana. | 400 |
| 5227 | 1284 | .. Halleck | 630 | 4008 | 1521 | Humboldt Bridge Station | 393 |
| 5204 | 1287 | .. Peko. | 627 | 3977 | 1525 | Lovelock's. | 389 |
| 5135 | 1297 | Osino | 617 | 3917 | 1533 | Granite Point | 381 |
| 5065 | 1307 | .. Elko | 607 | 3925 | 1541 | Brown's. | 373 |
| 5065 | 1319 | .. Moleen | 595 | 3893 | 1553 | White Plains | 361 |
| 4903 | 1330 | Carlin. | 584 | 4199 | 1560 | Mirage. | 354 |
| 4840 | 1339 | .. Palisade | 575 | 4070 | 1568 | Hot Springs | 346 |
| 4766 | 1350 | .. Cluro | 564 | 4017 | 1578 | Desert | 336 |
| 4690 | 1358 | .. $\mathrm{Be}-\mathrm{o}$-wa-we | 556 | 4155 | 1585 | Two Mile Station. | 329 |
| 4636 | 1368 | .. Shoshone | 546 | 4177 | 1587 | Wadsworth | 327 |
| 4548 | 1379 | .. Argenta | 535 | 4263 | 1602 | Clark's | 312 |
| 4508 | 1391 | .. Battle Mountain. | 523 | 4403 | 1614 | Camp XXXVII. | 300 |
| 4505 | 1403 | .. Side Track. | 511 | 4507 | 1622 | Reno. | 292 |
| 4421 .. | 1410 | .. Stone House. | . 504 | 4927 | 1632 | Verdi | 282 |




## THE UNION PAOIFIO RAILROAD.

The Act authorizing the construction of this monster traject across the continent was passed in 1862, and sanctioned by President Lincoln on the 1st day of July of that year. The Government granted to the companies that undertook its construction a section of land equalling 12,800 acres for each mile of the railroad; or, taking the total length of the line as 1775 miles from Omaha to Sacramento, a total of $22,720,000$ acres. The Trans-Continental Railroad, as it may more appropriately be called, has been laid down by two companies; the Union Pacific, which goes as far as Ogden, and the Central Pacific Railroad of California, which effects a junction with the former at Ogden, and now completes the through communication to San Francisco.

In addition to the grant of lands and right of way, Government agreed to issue its thirty year six per cent. bonds in aid of the work, on the following scale:-For the Plains portion of the road, $\$ 16,000$ per mile; for the next most difficult portion, $\$ 32,000$ per mile; for the mountains, $\$ 48,000$ per mile.

The Union Pacific Railroad Company laid down 526 miles of rail, and received $\$ 16,000$ per mile; 408 miles at $\$ 32,000$ per mile ; 150 miles at $\$ 48,000$ per mile,making a total of $\$ 28,456,000$.
The Central Pacific Railroad Company laid down 12 miles at $\$ 16,000$ per mile ; 522 miles at $\$ 32,000$ per mile; and 156 miles at $\$ 48,000$ per mile,-making a total of $\$ 24,386,000$. Total amount of subsidies for both roads, $\$ 52,840,000$.
The following details, which are necessarily on official authority, may be of interest to the reader :-
In the construction of the whole line were used about 300,000 tons of iron rails ; $1,700,000$ fish-plates; $6,800,000$ iron bolts; $6,126,376$ cross-ties ; and $23,505,500$ spokes.

Estimating the cost of the road complete by that of other first-class (American) railroads-viz., $\$ 105,000$ per
mile-we arrive at a total of $\$ 181,650,000$ for the whole work.

The railroad was begun on the 5 th of November 1865, and completed to its junction-point with the Central Pacific on May 30, 1869. The rolling stock now employed upon it is very large, as may be seen from the following enumeration, which, however, from the rapid increase constantly taking place, will soon be out of date:-

| Locomotives | 319 | Section Cars. | 109 |
| :---: | :---: | :---: | :---: |
| Passenger Cars. | 163 | Iron Cars | 50 |
| Emigrant and Second |  | Coal Cars | 231 |
| Class Cars. | 88 | Bridge Cars | 12 |
| Pullmann Sleeping Cars | 22 | Gravel Cars | 20 |
| Silver Palace Sleeping Cars. | 20 | Derrick and Wrecking Cars. |  |
| Mail and Express Cars.. | 45 | Rubble Cars | 13 |
| Caboose Cars. | 88 | Powder Cars | 20 |
| Baggage Cars. | 34 | Water Tank Cars | 4 |
| Box Cars. | 2566 | Cook Car. | 1 |
| Flat Cars. | 2765 | Pay Cars | 2 |
| Hand Cars. | 421 | Officer's Cars | 2 |
| Dump Cars. | 142 | President's Car. | 1 |

We need hardly say that not only the Sleeping Cars, (82)
but all the rolling stock, is equal in finish and appointments to that of the best railways in any part of the world.

RAILWAY WORKS AT OMAHA.
These include a series of machine shops, on the low land fronting the Missouri. They are built of brick, and cover 30 acres of ground. The round-house contains twenty stalls; the principal machine shop is 60 feet by 120 feet in size, and contains all the machinery necessary for constructing or repairing cars and locomotives; the blacksmith shop measures 80 by 200 feet; the store room, 76 by 80 feet; the car shop, 75 feet by 150 , with a wing, 40 by 100 feet; the paint shop, 30 by 121 feet. The engine which sets in motion the various machines found in these departments is of 70 horse-power ; and the number of men regularly employed in the maintenance of the line is about 4000 .

THE PRAIRIES: THEIR GENERAL OHARACTER.
A few words may here be said in reference to the great western prairies, which are traversed by the Pacific Railroad, and which form so striking a feature of the MissouriMississippi basin.

Southward, an open and sandy waste, about 450 miles in width, skirts the base of the Rocky Mountains as far south as the 41st parallel of north latitude. The dry plains of Texas, and the upper region of the Arkansas, possess all the characteristics of the Asiatic table-lands; further to the north, the lifeless, treeless steppes on the high grounds of the far West are scorched and scathed in summer, and frozen in winter by keen, harsh blasts from the Rocky Mountains. Towards the Mississippi the condition of the land improves; but at its delta extends a labyrinth of lagoons, and creeks, and shallow lakes, intersected with jungles of dense brushwood. "There are also large tracts," says Mrs. Somerville, " of forest and saline ground, especially the Grand Saline between the rivers Arkansas and Neseikelongo, which is often covered two or three inches deep with salt, like a fall of snow. All the cultivation on the right bank of the river is along the Gulf of Mexico and in the adjacent provinces, and is entirely Tropical, consisting of sugar-cane, cotton, and indigo. The prairies, so characteristic of North A merica, then begin."

And what are these prairies?
Leagues upon leagues of undulating meadow-land, some-
times as level as a verdant pasture-sometimes broken up by considerable ridges or valleys-nearly always, to the eye, as boundless as the sea. Almost the entire area -we are here speaking in general terms-is covered with long rank grass of tender green, and lighted up by flowers of the liliaceous tribe, which charm with their beauty, and fill the air with fragrance. Occasionally, the more monotonous breadths of the grassy plain are relieved by the sparkle of a brook; and animation is given to the landscape by the frequent appearance of herds of bison, deer, and antelope. At times, in the remote districts, the prairie wolves may be observed in their leafy coverts on the watch for prey; or flights of birds darken the air, and tempt the traveller with the promise of an abundant provision; or large tracts are covered with sage-brush.

Travellers soon learn, it has been remarked, when making estimates of a country's value, to despise no feature of the landscape; that of the plains is full of life, full of charm-lonely, indeed, but never wearisome. Now great waving uplands of enormous sweep, now boundless grassy plains; there is all the grandeur of monotony, and yet continual change. Sometimes the dis-
tances are broken by blue buttes or rugged bluffs. Over all there is a sparkling atmosphere and never-failing breeze; the air is bracing even when most hot ; the sky is cloudless, and no rain falls. A solitude which no words can paint, and the boundless prairie swell, convey an idea of vastness which is the overpowering feature of the plains.

It may even be affirmed that maps do not remove the impression produced by the eye. The Arkansas River, which is born and dies within the limit of the plains, is two thousand miles in length, and is navigable for eight hundred miles. The Platte and Yellowstone is each of them as long. Into the plains and plateau you could put all India twice. The impression is not merely one of size. There is perfect beauty, wondrous fertility, in the lonely steppe; no patriotism, no love of home, can prevent the traveller wishing here to end his days.

It has justly been remarked that a double charm exists in the prairies for those who love the sea. Their "roll," or undulating sweep, is not inferior in grandeur to that of the Atlantic ; while the freshness of the wind, the want of trees, the multitude of tiny blossoms on the sod, all
combine to impress us with a feeling of nearness to the ocean, until we fully expect to behold its grand expanse from the next hillock.
The abundance of flowers is a marked feature-in summer the colour of the landscape is green and flowers; in fall-time yellow and flowers; but flowers ever.

Occasionally, however, we come upon barren tractstracts of sand, only reliered by the grassy borders of the streams which traverse them, and filled with the dogtowns, or settlements of the prairie dogs. According to the late Fitz Hugh Ludlow, their burrows are frequently inhabited by owls. It may be merely a coincidence, he says, that owls and dogs are found so constantly about the same burrows; it may be that their burrows are contiguous, but not shared. I am only repeating, he says, what my eyes saw, or thought they saw, a great many times. When the sun had departed, and a purple gray was spreading over hill, and sky, and river, the prairie dogs who had been babbling their lively good-night for an hour or so, whisked their last tail within their burrows, and became silent all at once. Then, to all appearance out of the same burrows, came one by one a host of little grayish owls, who, with the low furtire
fiight of all the nocturnal species, stole about the sandbanks and down to the river-side. Every now and then one of them returned to the dog-town, dropped down at the entrance to some burrow, and vanished from the most curious gaze.

Another noticeable characteristic of these plains is, that they can receive and swallow up millions of human inhabitants, and yet are always waiting open-mouthed for more. Vast and silent, fertile yet waste, field-like yet untilled, they have room for the Huns, the Goths, the Vandals-for all the teeming hosts that have poured in and can pour from the great plains of Asia and the overstocked granary of Central Europe. Twice as large as Hindostan, more temperate, more habitable, Nature has placed them here hedgeless, gateless, free to alla green field for the support of half the human race, unclaimed, untouched, and awaiting, smiling, both hands and plough.

And now, before beginning our long journey across the continent, we would attempt to gather up some experiences of former tourists. We will suppose that the forenoon train is preparing to start on its run of upwards of
one thousand miles from the terminus at Omaha to the western one at Ogden, which is also the eastern terminus of the Central Pacific. Here, as at most American and British railroad stations, a great confusion prevails. These passengers who are always in a hurry, and always losing their baggage, are hurrying to and fro, to their own confusion and to the confusion of all who become involved with them. Others, having cleared themselves of all mental agitation in reference to this matter, proceed to the office and secure berths in Pullmann's Sleeping Car. As the number of these berths is limited, the disappointment of many applicants is very bitter, for the prospect of spending several nights in an ordinary car is sufficient to depress the mind and daunt the courage of the ordinary traveller.
There is much instruction to be obtained from a study of the passengers. Some, with long beards and bronzed faces, we take to be old Californians, returning home after a visit to their native place somewhere on the eastern border. Others going to San Francisco, determined to make their fortunes; and not a few are Americans or Europeans, bound on a journey of pleasure, to test the capabilities of the new route, to survey a new
country, to enjoy the wonders of California. Many are timid, others are confident and easy. Some find a delight in stimulating the fears of the former by tales of peril, and of possible obstructions from the musket or tomahawk of wild Indians. Have these tales anything to do with the sale of insurance tickets, which is vigorously promoted by the fluent tongues of the agents of railroad insurance companies? At all events, it is a prudent precaution to take one. As we read in " A ppleton's Handbook of American Travel," the last piece of advice given in the introduction is, "Havinglaid in your necessary supplies, it only remains for you to insure yourself against accident by sea or land." But, taken as a whole, we are not much troubled by thoughts of accident by sea or land. We wanted to cross the continent, and we have done it.

## II.-ONAHA TO CHEYENNE.

Sir Charles Dilke is of opinion that Omaha bids fair to become the capital of the "Far West;" Mr. Rae remarks that it is one of those American cities which
seem to spring up, flourish, and wax great in the twinkling of an eye. Its history dates from 1854, when it was founded by a few squatters; among whom was A. D. Jones, now one of the "solid" men of the place. "In the fall of that year he received the appointment of postmaster for the place, which as yet had no post-office. As Mr. Jones was one of the most accommodating of men, he improvised a post-office by using the crown of his hat for that purpose. Few letters arrived, therefore the old plug hat answered every object. When the post-master met one of his few neighbours, if there was a letter for him, off came the hat from the post-master's head, while he fished out the missive, and placed it in the hands of its owner. It is said that, at times, when the postmaster was on the prairie, some anxiously expectant individual would chase him for miles until he overtook the travelling post-office, and received his letter." Omaha, however, can now boast of a permanent postoffice, under the superintendence of a post-master and six clerks.
The town is seated on the western bank of the Missouri River, on a sloping upland, which rises some 50 feet above the river, and 966 feet above the sea. Its popu-
lation numbers about 25,000. It possesses two daily, and four other newspapers. It has twenty-seven manufactories, one distillery, six breweries; its hotels, twelve in number, of which three are first-class; fifteen churches; and schools, public and private, in proportion to the population.

Omaha is not only the terminus of the Union Pacific, but of the Omaha and North-Western, and Omaha and South-Western Railways. The former strikes up the Elkhorn Valley to the mouth of the Niobrara; the latter traverses the Missouri River Valley, and crosses the Platte to Lincoln, the capital of Nebraska.

The Omaha barracks, to the north of the city, were built in 1868, and can accommodate 8000 men.

Summit Siding ( 4 m .), at an elevation of 1142 feet. The surrounding scenery is rich and well-cultivated, and as yet we have no evidences of the silence or solitude of the West.

Gillmore ( 10 m. ), elevation 976 feet.
Papillion ( 15 m. ), elevation 972 feet, on the east side of the narrow stream of Papillion Creek, a tributary of the Elkhorn.

Elkhorn ( 29 m. ), elevation 1150 feet, situated on a
river of the same name. The place is one of considerable and increasing traffic.

The Elkhorn River is about 300 miles long. The valley through which it flows averages about eight miles in width, and abounds in productive land. It has become a complete German settlement ; and the settlers have brought their native industry to bear upon the cultivation of the soil, and each snug farm-house stands embowered in a beautiful and productive orchard, or surrounded by a well-tilled garden. They need be at no loss for cheap, abundant, and varied supplies of food. The stream is full of buffalo-fish, pickerel, pike, cat-fish, and several other kinds. Its surface is also covered at certain seasons with ducks and geese, which come here for the purpose of breeding and feeding. Then the hunter's skill is called into requisition to chase the wild turkey on the hills, and the deer and antelope. Sum up all these products, and you will find, as the result, that an hospitable settler can place before you a bill of fare of first-rate quality.

Valley ( 35 m .), elevation 1120 feet.
Fremont ( 47 m .), elevation 1176 feet, is the principal town of Dodge County, in the territory of Nebraska.

There are here a telegraph station and an excellent "refreshment bar." The population is about 2000. Here the Sioux City and Pacific Railroad unites with the Union Pacific.

The Platte River now comes in sight, and we may justly say of it that "distance lends enchantment to the view." Its breadth is fully three-quarters of a mile, and hence you would suppose it a fit stream for argosies to navigate it; but draw near, and you find it has only six inches depth of turbid water. We skirt its bank for a considerable distance, following up the old track of the pioneers of civilization, who, for the last twenty years, have steadily directed their steps further and further to the westward.

Every traveller is impressed by his first view of the Platte Valley; but he should endeavour to obtain that first view in latter spring or in the early summer, when everywhere a bloom and freshness rest upon the scene. Otherwise, if he delay until the plains have been scorched, and the grasses and flowers have withered, and the streams no longer murmur, he will wonder at the enthusiastic accounts of more fortunate tourists. Let it be his consolation then, however, that if the brightness and
beauty have vanished, the sublimity remains. The scene may be less tender, and pathetic, and attractive; but it is grander, it is more majestic. It may not appeal to the fancy, but it does to the imagination. We prefer it in its summer aspect; but for others, the broad, almost boundless plain, whose horizon is bounded only by the sky, may have a greater effect-may appeal more strongly to their sense of the marvellous, the lofty, and the infinite!
From the Platte River up to Sherman the railroad is guarded by United States troops, posted in bodies of from thirty to fifty men at intervals of ten miles along the line. It is a curious sight to come upon the lonely sentinels stationed on their distant eminences, and each on the look-out for the Indian. We wonder what he thinks of! Of the strange scenery around him? That soon grows familiar to his accustomed eye. Of some sweet maiden far away? Or of the home circle which mourns its absent member? Perhaps so ; but, at all events, the thought of duty will be first and foremost with him.
Ketchum (54 m.).
North Bend ( 62 m. ), at an elevation of 1259 feet.

Since the formation of the railway, a population of 400 has gathered here, and the rich corn-fields all around are satisfactory evidence of their prosperity.

Schuyler ( 76 m .), elevation 1335 feet, is the principal town ( 400 inhabitants) of Colfax County.

Cooper ( 84 m .) , an unimportant station.
Columbus ( 92 m. ), a town with a population of about 1000 , containing three churches, schools, warehouses, hotels, and other additamenta, is situated at an elevation of 1432 feet above the sea, so that we have already accomplished an ascent of nearly 500 feet.

Crossing Loop Fork, an excellent piscatorial stream, on a sound substantial bridge of timber, we quickly reach the small flag-station of Jackson.

Here, we are told, many passengers see Indians for the first time; that is, genuine Indians, who live by hunting, and take a pride in getting scalps. They are Pawnees, professed allies of the United States Government, but by no means disinclined to "pot" a solitary traveller. They probably consider themselves civilized, for each carries a revolver in the belt strapped round his waist. That they are stanch adherents to old traditions is proved by an inspection of their encampment. Outside the huts are
poles stuck into the ground; and from the tops of these poles wisps of hair flutter in the breeze. The seeker after knowledge will, of course, inquire the meaning of this sign, and will be informed that the said wisps of hair are triumphant trophies severed from the scalps of conquered enemies. We agree with a recent writer that these Indians, whose only proof of civilization is the addition of the revolver to the scalping knife, are not persons for whom it is possible to entertain any very great admiration, except in the novels of Fenimore Cooper.

Crossing Silver Creek, we arrive at
Silver Creek Station ( 109 m .), elevation 1534 feet.
Clark's Station (121 m.).
Lone Tree ( 132 m. ), elevation 1686 feet. The old emigrant road from Omaha to Colorado crossed the river opposite this point at Shinn's Ferry.

Nothing delays us at Chapman's Station ( 142 m .), and we speed on to

Grand Island ( 154 m. ), elevation 1850 feet, where thirty minutes are allowed for supper. The principal hotel is Nebraska House. The island from which this small but thriving town (pop., 600) takes its name is situated
in the Platte River, about two miles distant, is richly wooded, and measures about 80 miles in length by 4 miles in width.

Here we take leave of schools and churches, and keep "our eyes peeled" for buffalo; the next 200 miles being the buffalo range, or the range of such buffaloes as escape the hunter's rifle, and the gradual cropping out of their food, the bunch grass, to give way to the corn plant.

Pawnee (162 m.).
Crossing Wood River, we skirt its thickly cultivated banks for several miles, and, at an elevation of 1974 feet, reach

Wood River Station (172 m.).
Gibbon (183 m.).
Kearney ( 191 m .), elevation 2106 feet. On the opposite side of the river is Fort Kearney, first established in 1848, and rebuilt in 1858.

Stevenson (201 m.).
Elm Creek (212 m.). After crossing this small stream, which winds its way through a perfect forest of elms, and passing Overton, we arrive at

Plum Creek ( 230 m .) , elevation 2370 feet.

Cayote ( 240 m. ). From this point we begin to lose sight of woods and groves, and the scenery at every mile becones less interesting.

Willow Island ( 250 m .) , elevation 2511 feet.
"Here may be seen a few board and log-houses, with their sides pierced with loop-holes and walled up with turf, the roofs being covered with the same material, which reminds one of the savage, against whom these precautions were taken. It derives its name from an island in the Platte, the second in size in that stream. And we may add, that from here, up the river, the traveller will doubtless observe many of the rude forts along the roadside as well as at the stations. The deserted ranches to be met with along the 'old emigrant road,' on the south side of the river, are fortified in the same manner. The fort was generally built of logs, covered on the roof and sides as already described. They were pierced in every direction with loop-holes, and afforded a safe protection against the Indians. 'They generally stood about fifty yards from the settler's hut, from which a subterranean passage led to the fort; and to this fort the settler and his household retreated when an Indian attack was threatened.'"

## Warren (260 m.).

Brady Island ( 268 m .), elevation 2637 feet. In the vicinity is Fort Macpherson, so named in honour of one of the national officers who fell in the "Rebellion,"

July 22,1864 . It is garrisoned by five companies of light cavalry.

Macpherson's Station ( 277 m. ).
Crossing the North Platte on a substantial trestle bridge of great length, we in due time arrive at

North Platte City ( 291 m .), elevation 2789 ; distance from Sacramento, 1485 miles east. This was at one time a rendezvous of roughs and gamblers; its morality is purer now, though its commercial prosperity has departed, and its population sunk from 2000 to 200. The Railroad Company have some works here.

Nichol's ( 299 m .).
O'Fallon's ( 307 m .). Observe, on the south side of the river, the curiously rent and riven sandhills, now approaching the stream in bold promontories which force it out of its channel, and now diverging from it in hollows and ravines of a singular character. Soon afterwards, we enter upon what is called the "Alkali Belt," extending to Julesburg, about 70 miles. "The soil and water are here impregnated very strongly with alkali substances."

Passing Alkali and Roscoe, we reach
Ogalalla ( 341 m .), at an elevation of 3190 feet; Brule (82)
( 351 m. ) ; and Big Springs ( 361 m .), at an elevation of 3325 feet, so named from a copious stream that wells out of the opposite sandhills.
Julesburg ( 377 m .), elevation 3500 feet, was another rendezvous for the 'rowdy men of the West," until the railroad brought in its track the forces of law and order.
From this point to Denver, in Colorado, the distance, along the windings of the Platte River, is 200 miles.
Leaving Julesburg, we enter the valley of the Lodge Pole Creek, pass Chappel ( 387 m. ); and at Lodge Pole ( 397 m .) attain an elevation of 3800 feet. The surrounding country grows very picturesque, and broad areas of prairie grass are pleasantly diversified by narrow valleys. Antelopes abound.

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\text { Colton ( } 408 \mathrm{~m} \text {.). }
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Sidney ( 414 m. ), in Nebraska Territory. At this place is sometimes posted a company of Uncle Sam's Regulars. The train stops here to allow its passengers half an hour for refreshment. The Company have a machine-shop and some other works at this station; and the town itself, though not containing above 200 inhabitants, is evidently destined for an important career.

## Brownson ( 423 m.).

Potter ( 433 m .), at an elevation of 4370 feet.
In this vicinity the acute traveller will begin to make acquaintance with the cayeutes, or prairie dogs, and at about three miles from the station is situated the great prairie-dog city, occupying several hundred acres, honey-combed by a perfect labyrinth of subterranean burrows.

The prairie dog or Wish-ton-Wish (Spermophitus Ludovicianus) is a rodent, and not a carnivorous animal, and its popular name is due to the short yelping sound which it is fond of uttering, and which resembles, in some respects, the bark of a young puppy. It is a pretty and rather curious animal, measuring about sixteen inches in total length. Its general shape is round and flattish, and the head is peculiarly flat, giving to the animal a very remarkable aspect. The fur is grayish red; that is, chestnut alternated with gray.

It is a burrowing animal, and exceedingly prolific; multiplying rapidly, and extending its excavations to vast distances.
"Indeed," says Wood, in a book known to many of our readers,-"Homes Without Hands,"- "when once the prairie
dogs settle themselves in a convenient spot, their increase seems to have no bounds, and the little heaps of earth near the mouth of their burrows extend as far as the eye can reach.
"The burrows," continues our authority, "are of considerable dimensions, and evidently run to no small depth, as one of them has been known to absorb five barrels of water without being filled. It is not impossible, however, that there might have been a communication with some other burrow, or that the soil might have been loose and porous, and suffered the water to soak through its substance. They are dug in a sloping direction, forming an angle of about $45^{\circ}$ with the horizon, and after descending for five or six feet, they take a sudden turn, and rise gradually upwards. Thousands and thousands of these burrows are dug in close proximity to each other, and honey-comb the ground to such an extent that it is rendererl quite unsafe for horses.
"The scene presented by one of these 'dog towns' or 'villages,' as the assemblages of burrows are called, is most curious, and well repays the trouble of approaching without alarming the cautious little animals. Fortunately for the traveller, the prairie dog is as inquisitive as it is wary, and the indulgence of its curiosity often costs the little creature its life. Perched on the hillocks which have already been mentioned, the prairie dog is able to survey a wide extent of horizon, and as soon as it sees an intruder, it gives a sharp yelp of alarm, and dives into its burrow, its little feet knocking together with a ludicrous flourish as it disappears. In every direction a similar scene is enacted. Warned by the
well-known cry, all the prairie dogs within reach repeat the call, and leap into their burrows. Their curiosity, however, is irrepressible, and scarcely have their feet vanished from sight, than their heads are seen cautiously protruded from the burrow, and their inquisitive brown eyes sparkle as they examine the cause of the disturbance."

The stations of Bennett ( 442 m. ) and Antelope ( 451 m. ) may he passed with the remark, that at the latter point begin the immense grassy plains which must one day become the "great pasture land" of the continent. They extend for about 700 miles in length north and south, and about 200 to 250 miles east and west. The herbage of these plains is peculiarly nutritious, and grows from nine to twelve inches high.

It is said that in this unsettled country there is abundant feeding ground-and we should be disposed to second the assertion-for millions, we cannot say how many millions, of cattle, and that then there would be grazing land left enough for fattening half the stock in the Union. The grass is good, and water is plentiful, and there are no dangerous vermin, and the cattle plague is unknown. In summer the dryness of the atmosphere is such that it turns the standing grass into a naturally
prepared standing hay, without injuring its nutritious properties; then, after the rains, or even the snow, up comes the grass again, as green as any verdant farmer could wish to see it.
A predecessor on "this line" grows quite enthusiastic about this region of green pastures. Why, he says, why not stock it with sheep? See what room there is for the largest flocks ever brought together! and then, ready at hand, you have water-power for your manufactories, so that you have only to get your wool, and manufacture it into cloth on the spot, and despatch your supplies in all directions. And, seriously, there is no reason at all why this great valley should not rival in wealth and prosperity the territory of Colorado, with its flocks of sheep and herds of cattle.
At Bushnell, 12 miles west of Antelope, we have attained the astonishing elevation of 4860 feet. Here we enter the territory of Wyoming, whose name has been made familiar to us by Campbell's graceful poem; though the poet's "Wyoming" wassituated on "Susquehanna's side," and not in the Far West.
Pine Bluffs ( 473 m .), elevation 5026 feet. Pine trees are abundant in this neighbourhood.

Egbert ( 484 m .), where we take leave of Lodge Pole Creek, whose grassy valley was once a favourite hunting ground of the Sioux and Cheyenne Indians.
Hillsdale ( 496 m. ).
Soon after we pass this station, our eyes are greeted with a glimpse of the Rocky Mountains-the vast moun-tain-chain that, with great varieties of configuration, extends from the Arctic Ocean to the Straits of Magellan, and flings off its final extremity in the rugged island of Tierra del Fuego. A wondrous barrier, which Nature seems to have reared to prevent the encroachment of the waters of the Pacific. The highest peak that rises above its dark, distant line is Long's, which towers to a height of some 15,000 feet ; and to the left the snow-capped crest of Pike's Peak is not less than 13,000 feet above the sealevel.
It may be as well here to introduce a brief general description of this great range, or, more correctly speaking, of these ranges of mountains which occupy the central and western portions of our continent, forming a continuation of the Mexican Cordilleras, and extending as far north as the Pacific Ocean. They lie between the Pacific and $105^{\circ} \mathrm{W}$. long., with a breadth of about 1000
miles, and cover an area of 980,000 square miles. They form two parallel chains from the Sierra Verde to the mouth of the River Mackenzie, and these chains are occasionally united by a transverse ridge. From lat. $32^{\circ}$ to $40^{\circ} \mathrm{N}$., the double line bears nearly north and south; then from $40^{\circ}$ to $45^{\circ} \mathrm{N}$., the course is north-west, and turning somewhat sharply to the left they next pursue a route nearly parallel to the shore of the Pacific, throwing off several spurs, and some isolated peaks, one of which -Mount Elias, lat. $61^{\circ} \mathrm{N} .$, long $141^{\circ} \mathrm{W}$.-is 17,800 feet high, and planted like a sentinel on the boundary between the British possessions and our recently acquired territory of Alaska.
Some of the loftiest peaks are, Mount Chaster, in the North California range, 14,000 feet high; Fremont's Peak, near the sources of the Colorado and Yellowstone rivers, 13,570 feet ; Mount Brown, in British Columbia, 16,000 feet; and Mount Hocker, 15,700 feet. The passes vary in elevation from 6000 to 7000 feet, and an immense mass of the rugged mountain table-lands is between 4000 and 5000 feet. The pass through which our railroad is carried is the only one possible for a railroad ; and it is quite allowable to suppose that all-seeing

Nature left it open specially for the establishment by man of a channel of communication between Eastern and Western America.

The geological formations of which the mountains are composed are gneiss, granite (mainly so in the railroad region), porphyries, mica and talcose slates, and goldbearing quartz, with deposits of mercury, silver, coal, petroleum, and carboniferous limestone. This description applies, of course, to the general range, from Mexico to the Arctic Ocean ; but the details cannot but be useful to a traveller who is sure to have left his geography-book behind him.
The central forms the watershed, dividing the rivers that fall into the Pacific from those that terminate in the Arctic Ocean, Hudson's Bay, or the Gulf of Mexico. And between the first and second, or eastern and western ridges, lie the territories of Utah and Sierra Nevada, whose rivers find their outlets in the great lakes, as the Great Salt Lake and Humboldt Lake.

The western range is of inferior elevation to the eastern still north of the fifty-fifth parallel, where both ranges attain the same height. They are generally barren, though the lateral valleys are often very grassy and plea-
sant hollows, watered by running brooks, and sometimes shaded with trees. Their sole offset in the south is the Saba and Ozark mountains, which traverse Texas to the Mississippi. The valley, or depression, between the two ranges of the Rocky Mountains, which is 100 miles and more in width, reaches a considerable elevation beyond the railroad track, as we know that the tributaries of the Columbia River pour down its rugged course in a series of rapids and cataracts for nearly 100 miles ; and it is probably still higher towards the sources of the Peace River, where the mountains, only 1500 feet above it, are clad in everlasting snow. The Sierra Verde lies about 490 miles from the Pacific; but, as the coast strikes due north to the Sound of Juan de Fuca, the western range of the Rocky Mountains maintains a distance of 350 miles from the ocean, from that point to the sixtieth parallel of north latitude.
Archer ( 508 m .). The railroad to the left is the Denver Pacific, which meets us at

Cheyenne ( 516 m. .). The town is situated on a broad breezy level, watered by the Crow Creek, at an elevation of 6041 feet. It is 1260 miles distant from Sacramento, and 110 miles from Denver.

There is not much, so far as we know, to say about Cheyenne. It is neither so small as it was at first, nor so large as it has been, and may again be. In July 1867 it boasted of one house. About a year and a half later it had 6000 inhabitants ; and now, perhaps, the population is between 3000 and 4000 . And there is no doubt, too, that it was once " a rough (a very rough) place," and that some of its "prominent citizens" would not have been deemed pleasant companions by you or us. Its reckless days, however, have vanished; the worst of the population seem to have been drafted off to other places; and the streets are as quiet as any of our eastern cities, where the reign of law and order has been firmly - established.

Let us note that at the hotel they cook (or did cook) capital antelope steaks. They make a capital dish, with a flavour something between that of beef and venison.

## III. - CHEYENNE TO WASH-A-KIE.

After thirty minutes' delay, we cross Crow Creek (observe Fort Davy Russell in the distance), and arrive at

Hazard ( 523 m.$)$, where there is a beautiful little mountain pool. Elevation above the sea, 6325 feet. Eight miles further, and we reach

Otto ( 532 m .), 6724 feet, having risen among the Black Hills no less than 599 feet in this short distance.

Granite Canyon, or Cañon ( 536 m .), 7298 feet,-a rise of 574 feet in five miles, or about 121 feet per mile! Fences of timber, or rude stone dykes, are now frequently met with, having been erected as protections from the winter snow-storms. Limestone abounds in the vicinity, and many kilns have been erected.

We keep along a tolerably level road to
Buford ( 542 m .), where the rail is almost covered in by heavy snow sheds, and the train seems to run through a corridor of solid timber-work.

At 549 miles from Omaha, and 1227 from Sacramento, we reach Sherman, the highest point on any railway in the world, being 8242 feet above the sea-level. It was named after General Sherman, the "tallest" commander in the United States army. To the south-west, observe Long's Peak; to the south, 165 miles distant, Pike's Peak; and to the north-west, about 100 miles, the Elk Mountains; but that these are visible, except
to the eyes of a very free imagination, we may reasonably doubt.
"Some writers," says an English traveller-and he is quite right in quoting them - " strongly advise the traveller to make a halt at Sherman Station. The inducements held out are mountain scenery, invigorating air, fishing, and hunting. A sojourn among the peaks of the Rocky Mountains has the attraction of novelty to recommend it. Life there must be, in every sense of the word, a new sensation. But some sensations are undesirable, notwithstanding their undoubted freshness. That splendid trout swarm in the streams near Sherman, admits of no dispute. Yet the disciple of Izaak Walton should not be tempted to indulge rashly in his harmless and charming sport. It is delightful to hook large fish, but it is less agreeable to be pierced through by arrows. Now the latter contingency is among the probabilities which must be taken into consideration. A few weeks prior to my journey, one of the conductors of the train by which I travelled learned, by practical experience, that fishing amid the Rocky Mountains has palpable and painful drawbacks. Having taken a few days' holiday, he went forth, fishing-rod in hand, to amuse himself. While whipping the stream, in the innocence of his heart, he was startled to find himself made the target for arrows shot by wild Indians. He sought safety in flight, and recovered from his wounds, to the surprise as much as to the gratification of his friends."

It is with no small pleasure the traveller descends from
such aerial altitudes, and breaks into a romantically diversified country, where, every minute, some fresh combination of rock, and wood, and water makes up a new and delightful picture.

About 3 miles from Sherman, we cross Dale Creek Bridge, a timber structure, 650 feet long, and 126 feet high, which looks unpleasantly frail at a distance, but is stout enough to support the weight of the heaviest train.

Harney ( 558 m .), elevation 7857 feet, named after an old general in the United States service. It should here be noted that in the descent from Sherman to Laramie the gradient averages over $47 \frac{1}{2}$ feet to the mile; and no steam is used to propel the train, but steadying brakes to arrest and guide it. Strong snow fences are found here in many places.

Red Buttes ( 564 m.), elevation 7336 feet; so named from the bold masses of red sandstone planted between the rail and the Black Hill Mountains. Their outlines are remarkably bold and various; and the traveller's imagination may idealize them into almost any form be pleases.
Fort Saunders station ( 570 m. ), 7163 feet, accommodates.
the garrison of Fort Saunders, a military post established in 1866, and held by a couple of infantry companies.

Laramie City ( 573 m .), elevation 7123 feet. Here the train stops for thirty minutes.

Laramie is a bran-new settlement; but it is "going ahead" with remarkable rapidity, and already boasts of a newspaper-office, a school, places of worship for Episcopalians, Methodists, Baptists, and Presbyterians, an admirable hotel, the Railway Company's workshops, and an hospital.

We are now in the heart of the Laramie Plains, the finest grazing land in this part of the continent. Here thousands of buffaloes fed and waxed fat. It was said that, with the exception of Texas, no place could be found where cattle might be more easily and cheaply fattened.

But onward speeds the iron horse, and on each side the green plains broaden, as the mountains fade away into the blue and distant sky. On either side of us lies the rolling prairie, and yet not the prairie that we meet with in Illinois and Iowa. The sage-brush plant begins to show itself. This constitutes the sole vegetation of the dry, barren track that is known by the name of the Great American

Desert. The only circumstance brought forward in favour of the dreary sage-brush is that, when used medicinally, it is a specific for ague. It has been remarked, that were the malady as common as the cure is plentiful, hardly a human being would escape an attack of it. On the other hand, every afflicted invalid would be able to secure a remedy. Millions of acres are covered with sage-brush.

On the right of the line lies a small sheet of water, to which the name of Como Lake has been given. We don't pretend that in anything but name it resembles the famous gem of Upper Italy, where Lord Lytton's hero, Claude Melnotte, was about to "raise a palace to eternal summer;" yet it is very bright and pleasing, and a relief to the monotony of the surrounding wilderness.

Howell's (581 m.).
Wyoming ( 587 m. ), elevation 7068 feet, on the Little Laramie River. Crossing Little Laramie and Whisky Creek, we arrive at

Cooper's Lake Station ( 602 m .), elevation 7044 feet. The lake, a beautiful sheet of water, three miles by half a mile, lies to the west of the station.

Look Out ( 606 m .), elevation 7169 feet. Elk, deer, and antelope abound on either side; and the rolling prairies present some beautiful landscapes.

Miser ( 614 m. ), elevation 6810 feet. Sage-brush is very plentiful in this vicinity.

Rock Creek ( 623 m .), elevation 6690 feet. Between this and the next station the country is broken and rugged, and the railroad works are of a very difficult character.

Como ( 638 m. ), elevation 7680 feet. The lake, of which we have already spoken, lies to the right of the road. Its surface is covered with ducks, and its depths teem with fish.

Crossing Medicine Bow River, we reach
Medicine Bow Station ( 645 m .), elevation 6550 feet; traverse a smooth and pleasant plain for about five niles; and then, through a rough country, make our way to

Carbon ( 656 m. ), elevation 6750 feet. Two fine beds of coal have been found here, yielding about two hundred tons daily. In the pits three hundred men are employed.

Through a six-mile series of deep cuttings we reach

Simpson ( 662 m .), elevation 6898 fer.
Percy ( 669 m .), at an elevation of 7950 feet ; so named from a Colonel Percy, who was killed here py a party of Indians while making a survey of the road. The Elk Mountain, which at its base measures twenty miles in circumference, is covered with snow for a great portion of the year, and forms a notable landmark from this point.
Dana ( 675 m .). Here we enter upon a very unattractive alkali country.

St. Mary's ( 680 m. ). Soon after leaving the station we plunge into a formidable gorge, which throws out projecting rocks on either side, as if they sought to obstruct the passage.

Walcott's ( 688 m .), is also situated in the ravine, and the scenery in all directions is of a singularly bold and majestic character.
Fort Fred. Steele ( 696 m. ), elevation 6840 feet. The fort, close by the station, was established June 30, 1868, and is now garrisoned by three companies of Uncle Sam's Regulars.

Grenville ( 704 m. ).
Rawlins Springs ( 709 m .), elevation 6732 feet, where
we pause thirty minutes for refreshment. The surrounding country presents no features of interest, and the socalled springs are alkali pools of a very disagreeable taste, and scarcely less disagreeable aspect.
Separation Station ( 723 m .), elevation 6900 feet.
The gradient is now a gentle ascent ; and we climb up, as through a channel purposedly made by Nature, to the summit of the ridge of the Rocky Mountains.

At Creston ( 737 m .), we are not less than 7030 feet above the sea-level.

Two and a half miles beyond this point west, a flag, planted by the wife of Captain Clayton, near the track, marks the summit as 7100 feet in elevation. This point is about 185 miles from Sherman, 737 miles from Omaha, and 1039 miles from Sacramento.

In a scene of such absolute wildness, as others besides ourselves will have remarked, this little flag-staff may be taken as marking the centre of the grandest range of mountains on the continent. The wrecks of Titanic fortresses seem to lie around us, and to remind us of the great struggle which, as the poets tell us, took place of yore between the gods and giants, when Ossa was piled upon Pelion. The mountain breeze plays freshly on our cheeks,
but brings with it no evidence of life, no aroma of vegetation. We feel and know that the same sky which hangs so warm and blue over the radiant valley is as blue when seeming to rest upon these mountain-heights. But how changed it is in character! The blueness is that of steel, cold and repellent-a clear, keen blue, which no genial breeze ever seems to soften.
If a spring should arise from this sage-brush-covered knoll, its waters would divide and separate, and eventually, in two different streams, flow into the oceans which wash the opposite side of the continent.
We resume our seats in the cars and pass on, the track seeming to disappear but a short distance in our front. The view from the rear of the car is the same. It seems as if the track were warped up and douhled out of sight. The curvatures of this backbone, it is rightly said, give the track a similar appearance to that witnessed at Sherman. Although Sherman has a loftier elevation, this is the continental dividing-point, or watershed ; but the low broad pass brings us 1212 feet below that place. To the north the rugged Seminole Mountains rear their crests; and, more to the westward, and at a greater distance, you may trace the gray lines, broken and capricious, of the

Sweetwater range. Still further to the west and north, the Wind River Mountains close the perspective with their white-robed summit. A way to the south you may trace the hills forming the southern boundary of the pass, close by the point where the Bridger Pass Station is situated on the old overland road. The Uintah Mountains serve to fill up the picture.

## IV.-THE ROCKY MOUNTAINS TO OGDEN.

Wash-a-Kie ( 752 m. ), elevation 6697 feet.
Red Desert ( 761 m .), elevation 6710 feet. The surrounding country is so called from the colour of its soil, a deep red, due to the presence of a sesquioxide of iron.

Table Rock ( 775 m. ), elevation 6890 feet ; the station so named from a peculiar flat-topped bluff, about 500 feet in height.

Bitter Creek Station ( 785 m .), elevation 6685 feet. Hence we descend the celebrated Bitter Creek Valley for sixty miles to Green River. Coal and oil are among the treasures of this valley. Coal, too, is found at

Black Buttes ( 794 m .), elevation 6600 feet; and at Hallville (798 m.).
Point of Rocks ( 805 m. ), elevation 6490 feet. Here, too, a vein of coal has been struck, but the quality is not very good. From this station regular stages run, during the summer, to the Sweetwater Mines, lying on the Sweetwater River. The lodes are rich in gold.
Salt Wells Station ( 817 m .), elevation 6360 feet.
Van Dykes ( 828 m .), where more coal is found.
Rock Springs ( 831 m. ), elevation 6280 feet. Through a romantic gorge we sweep rapidly downward to

Green River Station ( 845 m .), elevation 6140 feet, cross Green River, and reach

Bryan ( 858 m .), elevation 6340 feet, where another thirty minutes are allowed for the refreshment of the inner man. The Railroad Company have some workshops here.
We now ascend the Black Fork, crossing it twice, and run through a country of no particular interest, to

Granger's Station ( 876 m. ), in the territory of Utah. Church Buttes ( 887 m. ), elevation 6317 feet. Moss agates are found here, among the sandy bluffs, in great abundance. These bluffs assume so ecclesiastical a cha-
racter, with their spire, and domes, and pinnacles, as to have suggested the significant name of the station.

Carter's Station ( 904 m .), elevation 6550 feet. Ten miles distant lies Fort Bridger, established in 1858 by General A. S. Johnson, and named after James Bridger, "the renowned hunter, trapper, and guide." It is situated 159 miles from Salt Lake City, and garrisoned by three companies of infantry and one of cavalry.

Bridger Station ( 913 m. ), elevation 6780 feet.
Piedmont Station ( 928 m.), elevation 7123 feet.
Aspen ( 937 m .), elevation 7540 feet, being the second highest point on the Union Pacific Railroad. It is named after a lofty mountain to the north, called "Quaking Asp."

Crossing Yellow Creek, one of the tributaries of Bear River, we reach

Evanston ( 955 m .), elevation 6835 feet. In the vicinity are some oil wells and sulphur springs; and at the head of Echo Canyon are some very valuable coal mines.

Alma ( 957 m .) elevation 6850 feet.
Wahsatch ( 966 m .), elevation 6879 feet. Here the train stops thirty minutes, and the travellers obtain
what refreshments they can at the "Trout House." It is expected that the town will shortly be removed to Evanston. Truth to tell, it bears a very malodorous reputation. A recent traveller was told that "out of twenty-four graves here, only one held the remains of a person who had died a natural death, and that was a woman of notoriously bad character who had poisoned herself!"
In some parts of the Bear River Valley we may note, as a fact, that the grasshoppers are so numerous it is impossible to place the point of a pin on the ground without touching them!
"An eastward-bound train," says a writer in the New Jersey Journal, "which has just come in to Wahsatch, is provided with evergreen brooms, covering the cow-catcher and brushing the track, to sweep off the grasshoppers. The engineer of our train informs me that at times they are so numerous on the track as to be crushed to death by thousands: hence they make the driving-wheels and track so greasy that trains are of ten two or three hours behind their time."

We now pass through a tunnel 770 feet long, but not the longest on the line. What a curious sensation travelling in a tunnel gives you! Whirling onward through
the grim darkness, your ears filled with the rush, the clatter, and the reverberation, you begin to think yourself handed over to the powers of the under-world! But with the passenger the sole evil of the tunnel, as a rule, is its passing effect on the imagination. To the railroad labourer it is a very genuine and positive evil, since its excavation is always a work of danger, and it is seldom completed without loss of life. The railroad is not much alluded to in modern poetry ; but, at least, this portion of it has proved suggestive to the fancy of our San Francisco poet, Bret Harte; and his pathetic ballad thereupon may be perused by the reader on his again emerging from the darkness, -
" Didn't know FlynnFlynn of VirginiaLong as he's been yar? Look'ee here, stranger, Whar hev you been?
" Here in this tunnel He was my pardner, That same Tom FlynnWorking together, In wind and weather, Day out and in.

[^0]Makes my eyes run.
Well, there-I'm done!
" But, sir, when you'll
Hear the next fool
Asking of Flynn-
Flynn of Virginia -
Just you chip in,
Say you knew Flynn-
Say that you've been yar."
Flynn is just the type of a large number of our railway workmen. Whether Bret Harte has founded his ballad on any real incident we cannot say. All we know is, that after reading it one feels a strange sensation of unaccustomed tears.
Now we enter Echo Canyon, of which, in the first place, we shall attempt a general sketch.
Echo Canyon (or Cañon) is one of the sublimest, and yet, too, one of the fairest scenes which even the New World can boast of. Picture to yourself, 0 reader, a deep, rocky, and rugged ravine some seven miles in length, and, at its head, from one-half to three-quarters of a mile in width. On the right hand it is flanked by bold, precipitous, and buttressed cliffs from 300 to 800 feet high,
denuded and water-worn by the storms which beat against them during the southerly gales. Their strata lie inclined at an angle of $45^{\circ}$ from N.E. to S.W. The opposite side, sheltered from furious winds and driving tempests of rain, is formed by a succession of swelling verdurous hills or sloping masses of rock, profusely clothed with mossy herbage. In the hollow between them rolls a bright transparent stream, which, incessantly at work, has excavated for its waters a channel some twenty feet below the surface. At certain parts a rocky ledge or a pile of boulders vexes it into madness, until, gathering itself up like an athlete, it clears the obstacle with one swift and sudden bound. About half-way down, the ravine narrows to a mere defile, where the stream grows wilder, and the banks are steeper, and the vegetation flourishes more thickly. The lofty cliffs on the right are here broken up into a variety of fantastic outlines: pyramids and pinnacles, spires and towers, battlemented fortresses and ruined cathedrals-the whole resembling a magician's vision embodied in stone, which might furnish the imagination of poet or artist with inexhaustible material.
In truth this canyon is, what Fitz Hugh Ludlow calls
it, one of the most magnificent avenues by which Nature has ever supplemented human skill, or challenged it to a hopeless contest. Notwithstanding all our engineering appliances and artificial forces, to wring from Nature such a corridor, or "right of way," between two tracts divided in their physical geography by a lofty barrier one hundred miles in thickness, would have cost us at least a hundred years of the most enlightened skill and the most arduous labour. Nature, therefore, as if she felt the necessity of providing for those social and commercial currents which are ever longing to mingle over the whole world, throws open to Man the pass of the Wahsatch, as free as air.

Obviously it must have received its name from an echo; though neither by experiment nor inquiry can the traveller discover any one sufficiently remarkable to have bestowed its name on so grand a task of Nature.

Castle Rock ( 975 m .) , a little station at an elevation of 6290 feet, in the vicinity of a long line of red sandstone cliffs, which wear a curiously castellated appearance. Seven miles further down is the Hanging Rock; and six miles beyond, the massive boulders and huge rocks collected on the brink of the precipice, to be flung down upon (82)


THE PULPIT ROCK.
the United States forces under General Johnson, sent against the Mormons in 1857.

During the descent of the valley the railroad crosses the Echo Creek thirty-one times in 26 miles.

Passing the Witches' Cave and Pulpit Rock, we reach

Echo City ( 991 m.), at an elevation of 5540 feet. It has now a population of about 700 inhabitants, but as both iron and coal have been found in the vicinity, we can hardly doubt that it has "a good time coming."
Eight miles below Echo City the train enters Weber Canyon, which almost surpasses the Echo in sublimity of character. In its depths the Weber River rushes impetuously forward, or collects, when its fury is spent, into dark silent pools, which suggest an idea of indefinable and mysterious depth.

Where the pass narrows we come upon the One Thousand Mile Tree, a pine that marks the exact distance from Omaha, and for centuries has marked it, before Watt had perfected the steam-engine or George Stephenson the locomotive. Not far from this curious landmark is the Devil's Slide, a remarkable disposition of high narrow slabs of granite, planted up the mountain side, and nearly to its summit, at a nearly uniform distance of 100 feet. Another conspicuous landmark is the celebrated Witches' Rock. Next we shoot through a tunnel 550 feet long, cross, recross, and again cross and recross the river, until, where the valley widens, we come upon


THE WITOHES' ROCK, IN THE WEBER CANYON.
Weber Station ( 1007 m .), in the vicinity of Morgan City, a Mormon settlement; and next, after a rapid descent, arrive at

Devil's Gate Station (1019 m.), on the threshold of a
majestic but gloomy and almost weird landscape. We sweep onward through the very heart of frowning rocks and terrible precipices, until the mouth of the canyon is reached, and the traveller catches his first delightful glimpse of the broad green plains immediately before him, and of the Great Salt Lake beyond.

Uintah Station ( 1024 m .) elevation 4560 feet, or 2319 feet lower than Wahsatch, 58 miles to the eastward. From Sacramento, 752 miles.

Ogden Station ( 1032 m .). We are here at an elevation of 4340 feet, and 1032 miles distant from Omaha, and 742 from Sacramento.

The Union and Central Pacific Railroads have a union depôt at this station, with warehouses, round-houses, machine and repair houses. An excellent restaurant is also provided for the accommodation of travellers.

Ogden City lies about three-quarters of a mile from the station. It is situated at the mouth of Ogden Canyon, one of the valleys which intersect the Wahsatch range, and between the Ogden and Weber rivers. Hotel, the Ogden House. It is the chief town of Weber County, and as the terminus of both the Union and Central Pacific Railroads, as well as of the Utah Central, is a place
of growing trade. The population, chiefly Mormon, is about 6000 .

The scenery immediately around it is not very striking, but still there is enough to amuse and interest the traveller for a day or so, if his pedestrian powers are tolerable, and he does not fear to climb the abrupt hills and descend into the deep verdurous valleys.

Ogden Canyon is fully five miles in length, and from its mouth to its source, from plain to mountain-top, it presents a succession of those naturally artistic pictures, beautiful in outline, grouping, and colour, which are the delight of the sketcher. About six miles from the town, and high up among the mountain solitudes, lies an exquisite Arcadian glen, or "bowery hollow," called the Basin, watered by sparkling mountain creeks, and rich in a soft carpet of luxuriant herbage.

We have now completed the first portion of our TransContinental Tour. The second portion will be described in our "Piotorial Guide-Book to the Central Padific Railroad" (from Ogden to San Francisco). But to render the present volume more satisfactory, we shall append a brief chapter on the metropolis of Mormondom,
referring the reader for fuller particulars to our "Piotorial Guide-Book to Salt Lake City."

## V.-A VISIT TO SALT LAKE CITY <br> "the city of the saints."

Ogden is the terminus of the Utah Central Railroad, a line, 36 miles in length, owned and administered by the citizens of Utah Territory. It was begun on the 17th of May, 1867, the ceremony of breaking ground being solemnized by the presence of the head of the Mormon Church and all its principal dignitaries.

Utah Territory, we may premise, occupies an area of about 65,000 square miles, the greater portion of which is savage, rough, and mountainous. Not more than 135,000 acres are under cultivation. But the underground wealth of the Territory will probably be found of great extentrich veins of gold, silver, iron, and other metals having been discovered.

Utah was first settled in 1847, when, on the 24th of July, the vanguard of the Mormon emigration, numbering

143 men, entered Salt Lake Valley; five days later 150 more men arrived; and on the 31st of July Great Salt Lake City was laid out. On the 9th of March, 1849, the Territory, then known as the State of Deseret, passed formally under the governorship of Brigham Young. In 1850 the United States, to whom the country had been surrendered by the Mormons, placed it under their own legal administration, and an Act of Congress was passed to provide it with a Territorial government. Brigham Young was continued as governor of the Territory, then first known as Utah, until 1858, when a Federal governor was appointed.

The population is now about 130,000 , of whom about 60,000 may be Mormons, 35,000 Indians, and the remainder, settlers of all creeds and nations.
Twenty-four years ago Utah was a wilderness; to-day it is a land of thrift, industry, and wealth, its soil teeming with riches, its large population enjoying in peace the products of their labour. Prosperous towns and settlements (with 220 schools) extend a distance of about 500 miles-from Idaho Territory on the north, to Arizona Territory on the south.
For about twelve miles, the Utah Central Railroad
traverses what is known as the "Sand Ridge; " a long sandy swell, where sage-brush, rabbit-brush, suaflowers, and similar vegetation, with occasional patches of succulent grass, reign undisturbed by plough or water-ditch, much of it lying at too great an elevation for the use of the ordinary means of irrigation.

Along this portion of the line we obtain a noble view of the Great Salt Lake, with Antelope, Fremont, Stansbury, Carrington, Dolphin, and Hat Islands; a span of horizon exceeding a hundred miles in extent, from north to south, being opened up to the gaze of traveller or tourist, with scenery embracing the principal elements of loveliness and sublimity ; a loveliness resembling, though inferior to, that of the Bay of Naples, with a magnificence not unworthy of the Swiss Alps.

Sunset upon the lake is, during the summer months, one of the most brilliant spectacles the eye could ever hope to see, so gorgeously rich is the colouring, when peak and canyon are bathed in the purple and golden twilight of departing day.

The line for twenty-two miles from South Kaysville traverses the most fertile portion of the valley, the generous soil yielding profuse harvests of every product grown
in this latitude. While those of cereals and vegetables are extraordinarily large, the fruit, including apples, peaches, plums, apricots, and grapes, with melons, squashes, and pumpkins, is particularly fine.

The lake, dimpled with the shadows of its rocky islands, or reflecting the glory of a sunlit and cloudless sky, stretches far away to the right- 126 miles long, by 45 miles wide. Dreamy-looking valleys, buried in a rosy mist, and crowned by towering ranges of mountainswhose peaks, snow-capped even in the midsummer, soar above the clouds-are visible around us; while, on the left, lie well-cultivated arable lands, with orchards and gardens encircling the settlements of Kaysville, Farmington, Centreville, and Bountiful,* and running along the base of the Wahsatch range.

Within about five miles of the City of the Saints, the railroad reaches the Hot Spring Lake, fed by the celebrated springs. It forms a beautiful little sheet of water, nearly three miles long, and upwards of a mile broad, whose calm surface is scarcely rippled by the flocks of wild ducks and geese floating so lazily upon it.

* The nearest station ( 2 m .) to the shore of the labe.

A small inlet or creek of this lake is crossed by the railroad; and the cars, swiftly flying over the pasture-land north of the city, and passing the Warm Spring Baths, soon arrive at the Salt Lake City terminus.
While varying greatly in the colouring of their descriptions, almost all travellers have recognized the skill with which the Mormon leaders selected the site, and have gradually developed the plan of their city. But at the felicity of the choice we need not wonder, since, according to President Brigham Young, it was indicated to him in a vision by an angel, who, standing on a conical hill, pointed out the locality where the New Temple should be built. Consequently, when the Mormon patriarch first entered the Salt Lake Basin, he looked for the angelhaunted cone, and discovering a fresh clear stream rippling at its base, he immediately named it City Creek. Some say the angel was the spirit of his predecessor, Joseph Smith, the apostle of Mormonism ; others, that as early as 1842 the latter was favoured with dreams of these valleys and mountains, these lakes and rivers, and revealed them to his favourite disciples. At all events, on the enforced exodus of the Saints from Nauvoo, they crossed the Rocky Mountains, and descended into this sheltered
basin, to found their new city in a scene of picturesque and impressive beauty.
Salt Lake City is situated in an angle of the Wahsatch Mountains, and stretches up close to the foot of the northern hills; while, on the east, it comes within about three miles of the bold and rugged range. The highest summits of the Wahsatch reach an elevation of more than 7000 feet above the level of the valley, and between 11,000 and 12,000 above the ocean-level.
The principal business thoroughfare in the city is East Temple Street. Like all the rest, it measures 132 feet in width, with brooks running down either side, and trees casting their pleasant shadow over the pathways. In shape the city resembles an $\llcorner$, the larger portion of the letter stretching east and west, and the shorter north and south. Its appearance is unique, and peculiar to itself. The numerous orchards met with in every quarter, and the thriving trees which border every thoroughfare, communicate to it the appearance of a mass of villas, cottages, and residences of every imaginable (and unimaginable) style of architecture, buried in a mass of luxuriant foliage.
Laid out in square blocks of ten acres each, the wide
streets run at right angles to each other, following the cardinal points of the compass. Thus the city covers a space of about nine square miles, and contains nearly 25,000 inhabitants. There are several hotels; but the best are the "Salt Lake" House, the "Townsend" House, and the "Revere" House.
The plan of Salt Lake City, as every traveller may judge for himself, resembles that of all our other cities. It has a main street, from which others run parallel, and from which side streets diverge at right angles. The majority of shops and stores are in East Temple Street. Observe, 0 tourist, on some of the stores, a sign-board with the following inscriptions: at the top, "Holiness to the Lord;" underneath, the All-Seeing Eye, and the announcement, "Zion's Co-operative Mercantile Institution." It is 132 feet in width, with a runlet of water rippling down either side, keeping the shade trees in lovely green foliage during the scorching summer months.

Among the public buildings the first to attract the attention of travellers is the Temple, which forms the centre, as it were, of the hopes of the many thousand
devotees who cling to the Mormon faith throughout the world.

It is intended to be devoted to such preliminary rites and ceremonies as baptisms, washings, anointings, and the like. Its dimensions, when completed, will be, $186 \frac{1}{2}$ feet from east to west, including towers, and 99 feet from north to south. The foundation is laid 16 feet from the surface of the earth, and the walls resting upon them are 8 feet thick. The towers will stand at each end of the building, - the centre ones, east and west, rising higher than the others, and to an altitude of 225 feet; while in each a circular stairway will whirl round a column of 4 feet in diameter, with landing-places at various sections of the building, which afford the most superb and extensive views of the city and the lake, the valley and the mountains.

Nor must we forget the Tabernacle, which is erected inside the Temple block of buildings. The south wall of this two-acre enclosure is perfectly embowered in foliage. From all parts of the city the building itself is recognized by its egg-shaped, dome-like roof. It is said to be the largest hall in the world of a single span roof, unsupported by pillar or column, and used for purposes of
public meetings. It measures 250 feet inside, from east to west, and 150 feet from north to south. Fortysix parallelogram pillars of red sandstone, 9 feet deep by 3 feet wide, form the base for the roof, which is a strong lattice-work of timber, firmly bolted together, and self-supporting. The west end is filled with a rostrum or " stand," an elevated platform, with three seats in the centre, elevated slightly one above the other, for the Church dignitaries.

The grand organ in the Tabernacle is the third largest in the Union. It contains about two thousand pipes.

The Theatre is built in a (82)

semi-Doric style, and is elegantly fitted up in the interior. It measures 172 feet by 80 , and has a stage of 62 feet in depth.
The City Hall is a handsome red sandstone building, surmounted by a clocktower.
Then there are also the City Prison, the Old Tabernacle, the University of Deseret, the Council House, the Court House, and the General Tithing Store,-all to be visited by the traveller; to say nothing of the Lion and Beehive Houses, which form the residence of President Young, and are surrounded by beautiful gardens. They are connected with the General Tithing Store.


A GROUP OF UTE SQUAWS.
In the immediate vicinity of the city are several places of interest. To the Great Salt Lake, or "Dead Sea of the West," we have already alluded, and its huge "Black Rock" is a feature of great interest; nor have we forgotten to refer to the Hot Springs and Warm Springs, which lie about two miles distant from each other, and are much commended for their medicinal virtues.

The Canyons, or valleys, in the Wahsatch and Oquirrh (82)

mountain ranges, are all deserving of exploration on account of the beauty and freshness of their scenery; and in the clear sweet brooks which ripple through them, the angler will find satisfactory employment for his skill. The artist, too, may occasionally come across a group of Ute squaws, who, for a small gift, will allow themselves to be transferred to his sketch-book; or he may prefer a

Snake Indian and his squaw; and both the Utes and Snakes are still numerous in Utah Territory.

A visit should also be paid to Utah Valley and Lake, the latter, a pleasant sheet of water, 30 miles long, by 15 miles broad. And Jordan River, and Ensign

Peak, are both to be included among the natural features of this extraordinary region, where human industry, in despite of seemingly insurmountable obstacles, has converted the wilderness into luxuriant gardenground.

## NOTE.

Census of Utar. - It is stated that the new census shows a $\mid$ born) population is 10,236 , and the females are 78 fewer than total population of 86,605 in the Territory of Utah, and many persons will be surprised to learn that the males are 1277 more in number than the females. It must be remembered, however, that in newly-settled territories the males, in ordinary cases, much more largely outnumber the females. The returns for Salt Lake City show how greatly the "peculiar institution" is sustained by foreigners. The native (American-
the males; but in the foreign-born population-viz., 7010the females are 686 more in number than the males. In the native population of Salt Lake City there are 50 females to 51 males; in the foreign population there are 38 females to 31 males. If we exclude children, who are probably in nearly equal proportions, the excess of women over men in the foreign population becomes much more marked.



DEPARTURE FROM OMAHA


PRAIRIE DOG CITY


CROSSING THE PRAIRIE.


SHERMAN_ROCKY MOUNTAINS
(Fighest station on the Union Pacific Railroad.)


[^1]

THE SNOW PLOUGH.
At work neax Blne Camyon, G.P Ranlwoac.


GREEN RIVER_ROCKY MOUNTAINS
And Railroad. Briage



TUNNEL AT WEBER, CANYON.

the devils silde - weber canyon


WEBER GANYON FROM FINGER ROCK.

one thousand mile tree west from omaha.


[^0]:    " Didn't know Flynn !
    Well, that is queer;
    Why, it's a sin
    To think of Tom Flynn, Tom with his cheer,
    Tom without fear-
    Stranger, look yar !
    " Thar in the drift, Back to the wall,
    He held the timbers Ready to fall;
    There in the darkness
    I heard him call:
    'Run for your life, Jake!
    Run for your wife's sake!
    Don't wait for me!'
    " And that was all
    Heard in the din,
    Heard of Tom Flynn-
    Flynn of Virginia.
    "That's all about
    Flynn of Virginia !
    That lets me out,
    Here in the damp,
    Out of the sun-
    That 'ar darned lamp

[^1]:    DALE CREEK BRIDGE.
    (Neax Sherman.)

