MT. RAINIER
National Park
WASHINGTON

UNITED STATES RAILROAD ADMINISTRATION
NATIONAL PARK SERIES
First view of Mount Rainier after entering the Park—from a bridge over Kautz Fork Creek, on Indian Henry pony trail.
An Appreciation of

Mount Rainier National Park

By GILBERT H. GROSVENOR, Editor, National Geographic Magazine

Written Especially for the United States Railroad Administration

AHOME— the Mountain That Was God! Thus the aboriginal Indians christened the sublimely majestic peak which broods over one of earth’s most beautiful playgrounds— Mount Rainier National Park.

All of America’s great parks extend to our people an almost irresistible invitation, truly irresistible if the individual has in his soul the love of wide spaces, beautiful vistas, forests, mountains, rocks, streams and flowers; but no other offers to the wayfarer, the traveler and the seeker of recreation so easily accessible a variety of charms, of creature comforts and of scenic grandeur as this wonderful preserve, with its snow-capped mountain towering nearly three miles above the sea; with its more than a score of glaciers tracing with fingers of ice the wrinkles of centuries upon the granite face of the heights; with its Paradise Valley carpeted with myriad wild flowers of every hue; with its unlimited diversions of camp life, mountain climbing, ice cave explorations, skiing and snowshoeing in midsummer, and automobiling mile upon mile over perfect roads, through giant forests, skirting the brow of overhanging ledges, and to the trickling waters of the melting glaciers themselves.

The glories of mountain-and-valley scenery in the Swiss Alps excel the beauties of Mount Rainier National Park in only one particular—the fact that they enjoy the advantage of a thousand years of advantageous advertising. Some day our people are going to waken to the realization that in our own America, our Land of the Best, Nature has given us scenic charms and natural wonders which surpass those of every other land. Mount Rainier National Park is a matchless proof of this statement. I wish no lover of the great outdoors would accept my word for this; he should verify these superlatives about Mount Rainier National Park by personal observation this summer.
To the American People:

Uncle Sam asks you to be his guest. He has prepared for you the choice places of this continent—places of grandeur, beauty and of wonder. He has built roads through the deep-cut canyons and beside happy streams, which will carry you into these places in comfort, and has provided lodgings and food in the most distant and inaccessible places that you might enjoy yourself and realize as little as possible the rigors of the pioneer traveler's life. These are for you. They are the playgrounds of the people. To see them is to make more hearty your affection and admiration for America.

Secretary of the Interior

Mount Rainier National Park

He who seeks a renewal of spirit in the vast world of out-of-doors, who reads the messages written on Nature's tables of stone, who hears music in the waterfall, who studies perfection as expressed in the dew-sprinkled flower, and who sees, in the pearly whiteness of mountain summits, a symbol of all things pure, may attain his ideals in the mountains of Washington.

Up through forests of fir and cedar the foothills rise, wave on wave, like a great green sea. Above this sea towers the giant snow-crowned summit of Rainier.

Mount Rainier—the Pacific North Coast crowning landmark—is the most titanic, extinct volcano in America outside of Alaska. Rising, snow-mantled, nearly three miles into the air from an evergreen forest base, which slopes to Puget Sound, its beauty and grandeur are supremely impressive.

With a mystery and majesty peculiarly its own, Rainier holds sway over all its kindred. It became king of the northern mountains geologic ages ago, when a mighty upheaval rent the earth asunder. Born of a fiery conflict, the heat of those fires has cooled, and the glistening, snow-crowned summit of today bears little resemblance to the molten mass of ages ago.

Nowhere on the globe can such a variety of Nature's masterpieces be enjoyed, and of all pleasurable places along the Pacific, none is more inspiring than Mount Rainier National Park.

It is a delightful region, composed of parks, mountains, woods, summer-lands, lakes, waterfalls, tumbling rivers, and living glaciers, made easily accessible by roads, trails and by-paths.

The lover of mountain scenery will find never-to-be-forgotten pictures in this National Park. Seen from Puget Sound, the impressiveness of Mount Rainier is due to its being situated a dozen miles west of the crest of the Cascade Range, on the forested plain sloping to tidewater. From viewpoints distant fifty to a hundred miles, it appears to rise directly from sea level, so insignificant seem the ridges about its base. The white uplift is unspeakably awe-compelling. It towers alone, distinct and commanding—far surpassing in height all peaks within sweep of the eye. Only a few of the world's great mountains stand thus detached and none has a more inspiring setting.

Little wonder that the child-like mind of the Indian, unable to understand this mountain, unable to explain its volcanic origin and its unusual phenomena, should deify it! Surely the park-like spaces that hang like a mammoth floral
Columbia Crest, the highest point of Mount Rainier, is 14,408 feet above sea level, and is the source of six primary glaciers which descend to the base of the mountain.

wreath between timber and snow were the fitting tabernacle of a God. And did not a beneficent God direct the streams pouring out from under the glaciers, from which the aborigine obtained most of his food and which afforded him highways through the forests? When storms came and the land was darkened, he saw the great clouds gather around the summit, and the mountain hid its face. After the storm was ended and his beautiful land, with its hundreds of miles of inland seas, was flooded with sunshine, the mountain came out of the clouds, its splendor renewed. Always it was there, watching over him, ever changing, yet always the same.

And who is there today to deny that this is holy ground? Surely that which is one of the most perfect of Nature’s productions and which leads the mind to higher, nobler thoughts, is entitled to our reverence. Yet we need not worship from afar, as the Indian did. Beautiful as this mountain is from the distance, those beauties are increased by a closer acquaintance.

In the upper forests the wonder flowers appear, becoming dense with the higher altitude, until everywhere, as far as the eye can sweep, there is a sea of blooms of all colors. They reach in billows clear to the snow line. Some follow the snow so closely that they may be found blooming along its edge or even in the smaller snow fields, while others climb the mountain sides far above the snow line and bloom in sheltered niches amid masses of rock and ice.

A visit to the summit of this extinct volcano cannot fail to be impressive. There are two craters, the larger 1,600 feet in diameter. From the rim between the two, rises an immense mound of snow known as Columbia Crest; this is the mountain’s summit.

Nature, the supreme landscape architect, has given this glacier-clad landmark an evergreen-forest setting, adorned with vast masses of flowers which form scenic combinations impossible to portray by word or picture. No vocabulary, no camera, no pencil, no brush can do more than suggest what one can see in this Wonderland. Hence you should see it for yourself and, if possible, climb to the top.

The sensation of having accomplished the ascent of the mountain has been best described by Maj. E. S. Ingraham, who was one of the first to climb Mount Rainier, and has since made the ascent many times.

"After long hours of incessant climbing I stand on the crest. A cold wind pierces my tired body to the mar-
row, yet my soul forgets the discomforts of its inhabitation and surges and expands. Around me slumber the snows of a century, yielding not to winter's blast nor summer's heat. One law alone they obey, that causes the apple to fall and the planets to keep their appointed places. Inch by inch they are dragged down the mountain's rock-ribbed side until they form the slow-moving glacier. The stunted trees upon the glacier's bank have grown old, beckoning it onward. The flowers of a hundred summers have smiled upon it and bid it welcome. Yet it pauses not nor yet hastens. When the snows upon which I now stand shall have reached the silver stream far below, our children's children may listen to its murmuring."

Two-Day Trip to the Park

Mount Rainier National Park is connected by automobile stages of the Rainier National Park Company with Ashford, Wash., a railroad station about three hours' ride from Tacoma and four hours from Seattle, Wash., and six miles from the Park entrance.

The ride, by auto-stage, from Ashford to Longmire Springs, near the foot of the mountain, at any hour of the day or by moonlight, is a treasured memory. Take it as often as you may, it is always a new delight. The route is across the upper Nisqually Valley, with its miniature fertile farms formerly covered by firs and pines, thence through the primeval forest. At the Park Entrance a stop is made for registration. This formality is soon over, the Park Ranger Quarters are admired, and the auto-stage continues along the dancing Nisqually, crossing and recrossing, affording ever-changing views of the mountain, until the arrival at Longmire Springs in time for luncheon. At Longmire Springs are located National Park Inn and Longmire Hotel (2,700 feet altitude and thirteen miles from Ashford). Here is the picturesque, miniature valley where, in 1883, James Longmire located a ranch noted for mineral springs of health-restoring worth, which give their name to the place. After a good meal, there is time for viewing the famous Longmire Springs—thirty-five bubbling mineral fountains, destined to rival the most renowned spas of the world. From the inn porch there is an incomparable, near view of the mountain, its shining crest eight miles distant in an air line. From the evergreen-forest frame, it rises 11,700 feet above the level of the eye. There are days when it appears no nearer than when viewed from tide-water points and again it seems even farther removed, according to atmospheric conditions.

Entrance to Mount Rainier National Park
Visitors generally board the morning train from Seattle or Tacoma, arriving at Longmire Springs for luncheon. Immediately thereafter, the auto-stage is taken for Nisqually Glacier, five miles distant by a road which winds in loops and curves along the heavily wooded mountain flank, above the tumbling river which appears and disappears between the trees. Through the forest openings, the ever-changing views compose a marvelous panorama and at every bend comments are made again and again on the fine boulevard and the skill and artistry of its builders.

Nisqually Glacier, altitude 4,000 feet, is 1,300 feet above Longmire Springs, and the road has an average 4.8 per cent grade, or a rise of 260 feet to the mile, yet so smooth is the going, the climb is not realized. Here is the first view of a glacier, for some 300 yards above the bridge is the moraine-covered nose of Nisqually Glacier, which blocks the valley to a height of 400 feet. From a yawning cave in its front issues the Nisqually River—a torrent at its start. In the long ago the glacier completely filled the valley above and below the bridge, and people still live who recall the time when it came down to the present river crossing. It is the one ice river in the world at the terminus of an auto-boulevard, reached in five hours from metropolitan centers.

There are more than a score of such torrents in the Park, having a similar glacial origin, among which Nisqually River takes foremost rank. A path easy to climb follows up the side of the glacier and crosses the lower portion to the opposite side. The traveler thus visualizes the great bulk of this ice-flow that starts at Columbia Crest, more than 10,000 feet higher and distant six miles in an air line. From this trail are matchless views of Nisqually Valley and the mountains that form the background to the south and west.

En route to Paradise, good-bye is said to the Nisqually River, which was first met at Lagrande and which has afforded thirty-five miles of scenic thrills. Above Paradise Valley it will be seen again, where it is a huge ice stream, for it is well to remember that the Nisqually is one of the six primary glaciers which head at the crest where the névé cascades have broken down the crater rim. From here the climb starts in earnest. Rounding the bold promontory overlooking the forested valley to the south, with the whole Tatoosh Range flanked by Eagle Peak in the background—an inspiring view—the road winds abruptly into the Paradise River watershed. This sharp vantage angle—altitude 4,225 feet—where a step over the retaining wall would mean a sheer drop of a thousand feet into the turbulent Nisqually, is Ricksecker Point, named for the engineer who laid out the road from Park Entrance to Paradise Valley.

Thus, winding along toward the canyon, Narada Falls suddenly fills the view directly below the road, framed in by overhanging trees. Narada is a Hindoo word, meaning peace. Then comes Inspiration Point—the circular bridge around Horseshoe Bend affording a view of the Tatoosh Range. Next the road climbs, in zigzag switchbacks, crossing precipitous glacial boulders overlooking Washington Torrents, a series of short falls in Paradise River, extending about a mile. Other pleasing vistas are passed, and Paradise Valley is reached (5,557 feet altitude)—the end of the government boulevard from Ashford, where the flowered meadowland meets the glaciers. This ride is two hours of unalloyed rapture. There are no other roads in the Park, except the Storbo Road from the northeastern part of the Park, to Glacier Basin. All other places are reached by trails. One trail entirely encircles the mountain.

Among the recent improvements is Paradise Inn, at Paradise Valley, which affords an unobstructed view of the mountain, its white-mantled crown towering 8,700 feet above the wide veranda, distant but five miles as the crow flies. Strange as it may seem, the royal crest looks no nearer than from Longmire Springs.

Paradise Valley offers many absorbing attractions, such as the fields of Alpine flowers, three hundred varieties massed in all colors as far as the eye can reach, Paradise Glacier, a safe, snow play-place where winter sports are a summer joy, and the full sweep of Nisqually Glacier. Paradise Glacier is easily accessible.
The trip outlined in the previous paragraphs covers two days in the Park, spending one night in Paradise Valley. It is made in comfort and free from haste, and includes the primary features of a visit to Mount Rainier National Park—the sunset and sunrise and leisure.

Ever since the early days, good trails have led to Indian Henry’s Hunting Ground, Van Trump Park, and Eagle Peak. Visitors who tarry over a day are most certain to go to Indian Henry’s and Van Trump Park. Eagle Peak is the usual first tryout hike for those who plan to climb the mountain, and no better beginning in real mountaineering could be desired. Its altitude is 5,955 feet, or about 3,200 feet higher than Longmire.

On the downward way the same places are met with in reverse order, forming new views, as if on another road. The distant mountain panorama is impressive. Go up and down this miracle boulevard as often as you may, it is never the same. Always the last passing is the best.

The Climb up the Mountain

The earlier ascents were over the Gibraltar Trail from Paradise Valley, the route commonly taken. The trip is made many times each season, and with the regular guides no difficulties should be encountered. Climbers leave Paradise in the afternoon, and spend the night at Camp Muir, under Gibraltar, which point must needs be reached before the morning sun starts to melt the snow—for the climb can be made only while the snow slopes are still frozen.

A welcome place is the shelter hut at Camp Muir. It affords desired safety and comfort, enabling climbers to remain over night or out-stay an unlooked for storm before continuing the upward hike. More people go as far as this vantage station than formerly, owing to the Muir Cabin, which is a stimulus to outdoor enthusiasts to place their names on the honor roll of those who have attained the summit.

Now that the west side trail is connected with the north side trail, alert mountaineers, who prefer real camping, ascend from Glacier Basin (elevation 5,900 feet), on The Wedge. From here the trail swings around the end of the Interglacier, before crossing almost its full length to Camp Curtis. This was the August, 1915, route of The Mountaineers, when fifty-seven persons, of whom twenty-one were women, signed the roster of the record cylinder on the summit, which was deposited in the crater rim under Columbia Crest. The climb is along the border of Emmons Glacier, near where it separates from Winthrop Glacier. The Mountaineers made the ascent from Camp Curtis to Columbia Crest in nine hours and forty minutes, each climber arriving in fit condition.

Once on the summit, the point is reached where one looks down on the land in all directions—the country of the vast silence, where there are no echoes, and where the winds rage suddenly and fiercely.

Have you ever journeyed thus to these great Temples of Silence? Have you ever reached the top of the very last spire of a mountain summit and gazed at the panorama of the world below, where the rivers look like silver threads on soft blue velvet?

If you have, you can remember the feeling of awe with which you gazed at the vastness below you. Then came the overwhelming desire to shout, to break the surrounding silence; and you did yell lustily, only to find that in this altitude the voice reached no farther than the lips. There was nothing to fling back the echo.

The sun slides down the western sky and the far mountain peaks grow pink, then flame, then glow like jewels in the flashing colors of an opal’s heart. The blue shadows begin to steal upward, pushing away the warm reds and pinks, and covering the world with a blue-black velvet mantle that grows blacker and more black, until only the high-flung peaks show white and cold above it, and the waters of the Sound gleam across the blackness, reflecting still the faint pink of the sky.

The descent is begun among the gathering shadows that mantle the rocks, and Paradise Inn is reached in due time.

The downward journey is not without interest. While accomplished more easily than the ascent, there is plenty to see and to do.
Paradise Inn—affording every modern convenience; heated and lighted by electricity from its own plant. Located at the terminus of Nisqually Glacier, the only glacier in the world reached by an auto-boulevard.
The Origin of This Mountain Playground

Puget Sound history begins in May, 1792, with Captain George Vancouver, of the Royal British Navy, surveying these waters. His journal tells of "a very remarkable, high, round mountain apparently at the southern extremity of the distant range of snowy mountains, which, after my friend Rear Admiral Rainier, I distinguished by the name of Mount Rainier."

Probably the first suggestion that the mountain and its surrounding forests be set apart as a National Park was made in 1883, by James Bryce, afterward British Ambassador to Washington. He, with Baron Von Bunsen and others, on their visit to this region for the celebration of the first north Pacific railroad, wrote a memorial to Henry Villard, recommending and urging a congressional enactment to that end. The agitation continued, and in 1899 Congress was induced to withdraw a tract eighteen miles square (207,360 acres) from the Pacific Coast Forest Reserve as a public park for the benefit of the people.

So far as known, the first to enter within the boundaries of Mount Rainier National Park was Dr. William Fraser Tolmie, the botanist of the Hudson Bay Company, who, in August, 1833, climbed Tolmie Peak in quest of "beautiful flowers and superb views." Speaking of the mountain, he notes in his journal, "a few small glaciers were seen on the conical portion," which is believed to be the earliest mention of glaciers in the United States. Naturally, those ice streams appeared small from a distance of ten miles.

The next approach was by Lieutenant (afterward General) A. V. Kautz, in 1857, who had a passion for mountaineering, and how high he climbed never will be known. "We are not likely," he wrote, "to have any competitors in this attempt to explore the summit of Mount Rainier. When the locomotive is heard in this region some day, when American enterprise has established an ice cream saloon at the foot of the glaciers, and sherry cobblers can be had at twenty-five cents half up the mountain, attempts to climb that magnificent snow peak will be quite frequent. But many a long year will pass before the roads are sufficiently good to induce anyone to do what we did in the summer of 1857." This was no vain boasting.

The third conquest of the mountain was in August, 1870, when General Hazard Stevens and Philander Beecher Van Trump named Peak Success and were the first to spend a night under the shelter of the crater.

James Longmire blazed a trail to his ranch in 1884, which later was extended to Paradise. The first women in these elysian meadows are credited with this apt christening. In amaze at the wealth of flowers they exclaimed, "What a Paradise!"

The medicinal properties of the springs soon won renown, and the trail was widened to a roadway, the first in the Park. This ranch and some mining claims were located before the National Forest and Park were created. The Longmire road, rough as it was, remained the best approach until 1906, when work was begun on the Government boulevard. This boulevard was constructed under direction of the War Department and was opened for travel to Paradise Valley in 1910, but automobiles were not allowed above Nisqually Glacier prior to 1915.
Most of the trails follow the road surveys. Not till the 1915 season were the different trails connected so that the entire circuit could be made. This betterment was hastened at the solicitation of The Mountaineers—an incorporated organization of hikers—who hold the distinction of being the first to encircle the mountain by the Government trails. This outing was participated in by one hundred and five men and women, who enjoyed a three weeks' knapsack trip, traveling well above timber line, crossing glaciers and descending into the parks to camp at night. The summit ascent was achieved by fifty-seven, of whom twenty-one were women. In the story of the Park this record marks an important mile post.

Towering Peaks and Massive Glaciers

Columbia Crest, 14,408 feet elevation, is near the center of the old crater rim. This summit dome measures from one to more than two miles across. Liberty Cap, 14,112 feet, on the north, Peak Success, 14,150 feet, on the southwest, Gibraltar Rock, 12,679 feet, on the southeast, with a few nameless, rugged remnants, are all that remain of this barrier. Because of the low temperatures prevailing at this high altitude, the drifting snows around the crown never melt, and no ice is formed about the summit.

About four thousand feet below the summit, the snows collect in great hollows called cirques, from which emerge the glaciers. In these cirques the snow is hundreds, sometimes thousands of feet deep. Weight freezes it first into coarse granules; then it is known as nèvé; after it begins to move, pressure turns the nèvé into solid blue ice. Six primary glaciers head near the summit. These are the Nisqually, the Ingraham branch of the Cowlitz, the Emmons, the Winthrop, the Tacoma and the Kautz. The Nisqually and the Cowlitz glaciers and rivers recall two of the prominent Indian tribes. The Ingraham, named for Major E. S. Ingraham, and the Emmons, named after Samuel F. Emmons, geologist and mountaineer, are the largest, each measuring six miles in length. The Emmons covers eight square miles of ground and makes a continuous descent from the summit to the base, the crater rim having almost completely broken down under its heavy snow cascades. Winthrop Glacier, named for Theodore Winthrop, the travel writer, is distinguished by its ice cascades and domes.

The Carbon, a great ice river on the north side, over five miles long and one and a half miles wide, is the third glacier in point of size, heading in a walled-in amphitheater, set low in the mountain’s flank. This amphitheater is technically known as a glacial cirque—a horse-shoe-shaped basin hollowed out by the ice from a deep gash in the volcano’s side. It is the largest of all these ice-sculptured cirques. An ice cave usually forms at the point of exit of the Carbon River. Other cirque glaciers are North Mowich and South Mowich—named by the Indians for the Mowich, or “deer,” carved high on the rock where all may see—also Puyallup and South Tacoma.

Next come the interglaciers, which spread over the backs of wedges or lava platforms and generally are of considerable size. Occupying the irregular platform of The Wedge behind Little Tacoma—the highest outstanding eminence on the flanks of the mountain, 11,117 feet—and separating Ingraham from Emmons Glacier, is Fryingpan Glacier, the largest in this class, covering fully three square miles. Below, on the north, lies Summerland, a region of flower-dotted meadows drained by streams that feed Fryingpan
On the summit of Mount Rainier are three peaks—Columbia Crest, Liberty Cap and Peak Success. This is a view of Peak Success from Ricksecker Point. A thousand feet below this point flows the turbulent Nisqually River.
Not to be overlooked is the original Interglacier, so called by Major Ingraham and distinguished by supplying the generic name for such ice fields, lying on the back of The Wedge behind Steamboat Prow, which parts Emmons from Winthrop Glacier. Van Trump and Stevens glaciers perpetuate the names of P. B. Van Trump and Hazard Stevens, who made the first successful ascent in 1870. After waving the Stars and Stripes from the top of the south peak they christened that towering summit "Peak Success."

Finally, there are minor detached ice bodies, each covering a square mile or more of ground, mostly unnamed, and smaller ones which, in other localities, would be considered of consequence.

All told, this ice-snow region, in the form of a truncated cone, has a total glacial area of nearly fifty square miles, from fifty to five hundred feet in depth. It is the largest accessible single-peak glacier system.

**Paradise Glacier**

A Field for Alpine Sports

As Paradise Glacier is the ice field easiest reached, this shortened account of some of its features, taken from "Mount Rainier and Its Glaciers," by F. E. Matthews, of the United States Geological Survey, cannot fail to interest.

"The generally smooth and united surface of the Paradise Glacier contributes not a little to its attractiveness as a field for Alpine sports. The long slopes are particularly inviting for the delightful 'glissades' which they afford. Sitting down on the hard snow at the head of such a slope one may indulge in an exhilarating glide of amazing swiftness, landing at last safely on the level snows beneath.

"One may roam at will without encountering a single dangerous fissure. This general absence of crevices is accounted for largely by the evenness of the glacier's bed and by its hollow shape, owing to which the snows on all sides press inward and compact the mass in the center. In the early part of summer, it has the appearance of a vast unbroken snow field, blazing immaculate in the sun. But later, as the fresh snows melt away from its surface, grayish patches of old crystalline ice develop in places. Day by day these patches expand until, by the end of August, most of the lower ice field has been stripped of its brilliant mantle. Its countenance, once bright and serene, now assumes a grim expression and becomes criss-crossed by a thousand seams, like the visage of an aged man.

"Over this roughened surface trickle countless tiny rills which, uniting, form swift rivulets and torrents, indeed veritable river systems on a miniature scale, that testify with eloquence to the rapidity with which the sun consumes the snow.

"Strangely capricious in course are these streamlets, for while in the main gravitating with the glacier's slope, they are ever likely to be caught and deflected by the numerous seams in the ice. But, as the lowering sun withdraws its heat, the melting gradually comes to a halt, and the little streams cease to flow. The soft babbling and gurgling and the often exquisitely melodious tinkle of dripping water in hidden glacial wells are hushed, and the silent frost proceeds to choke up passage and channels, so that next day's waters have to seek new avenues."

**Nature's Luxuriant Flower Garden**

Any account of Mount Rainier National Park would miss its loveliest feature without more than a passing word of the wild flowers massed on benches and slopes, often reaching high up along the edges of the glaciers, springing to life as the ice melts, wherever there is any soil.

Paradise Valley, Van Trump Park, Indian Henry's Hunting Ground, St. Andrews Park, Summerland, and Spray Park in midsummer are carpeted in marvelous blooms.

Let John Muir, the celebrated naturalist, describe them: "Above the forests there is a zone of the loveliest flowers, fifty miles in circuit and nearly two miles wide, so closely planted and so luxurious that it seems as if Nature, glad to make an open space between woods so dense and ice so deep, was economizing the precious ground and trying to see how many of her darlings she can get together in one mountain wreath—daisies, anemones, columbine, erythroniums, larkspurs, and others, among which we wade waist-deep—the bright corollas in myriads touching petal to petal. Altogether this is the richest sub-Alpine garden I have ever found, a perfect flower elysium."

**Building Mount Rainier**

The life history of the mountain has been a varied one. Like all volcanoes it has built up its cone with the materials ejected by its own eruptions—cinders, bombs and flows of liquid lava that have solidified into layers of hard basaltic rock. At Nisqually Glacier these volcanic rocks are seen to overlie the granite foundation. Once a symmetrical cone and still quite young, as mountain history goes, it bears deep scars of never-ending conflict between the forces of Nature. For centuries the grinding glaciers have been working to level the immense mass of lava and ash piled up in recent geological time. They have accomplished only a small part of their task.

Professor Edwin J. Saunders, of the Chair of Geology, University of Washington, tells us, "The building of the mountain probably extended over many thousands of years. Numerous eruptions gradually built up around the crater an immense cone composed of many cubic miles of lava. Explosive eruptions gave rise to huge volumes of ash, lapilli, bombs, pumice, and the porous lavas one sees scattered for miles around the crater. Quiet flows of lava radiating from the crater served to bind together the loose materials by bands and layers of solid lava rock. One can almost imagine the rock just cooled from the molten state, the sluggish, scoriaceous surface representing the foaming surface of the lava streams. Different types, as if from different sources, are found about the slopes, and various colors, due to difference in Nature and weathering, break the otherwise monotonous appearance of the lava surface. The exact limits of these flows have not been carefully worked out, but the
Road in Lower Paradise Valley, where the flowered meadowland meets the glaciers
The dotted line indicates the original height before the explosion or eruptions ending in the decapitation which shaped Mount Rainier as it appears today.

The diameter of the cone at its base is about twenty miles. The inter-bedded lavas and loose ash materials are well shown in the eroded walls of The Wedge, Cathedral Rocks, Willis Wall, Gibraltar, or any of the various remnants about the surface of the glaciers.

The angle at which these strata appear in the different exposures, indicates a cone at one time several thousand feet higher that the present summit, and much more symmetrical. This is shown very nicely in a cross section of the mountain through the Success Cleaver, and the cleaver below Willis Wall.

"After the cone was built and the crater probably plugged up by cool, solid lava, it looks as if a violent eruption had blown 2,000 to 3,000 feet off the top, and left an immense crater, or platform, about three miles in diameter. Remnants of the old crater and slopes are seen in Peak Success, Liberty Cap, and Gibraltar.

"Later eruptions then built on this platform two small craters, the first about 1,000 feet in diameter, the rim of which has been partially broken down, the most recent about 1,500 feet in diameter, and still perfect. The rim of the latter shows the snow which now almost fills it. Steam and gas are issuing from crevices in the floor and about the walls of this recent crater. The heat is sufficient to melt large caverns in the snow cap, thus furnishing a welcome protection from the strong cold winds for belated mountaineers who stay overnight at the summit."

**Miles of Mountain Trails, Through Natural Parks and Upland Meadows**

In recent years the trails have been extended and new trails opened each season. The trail system within the Park has now a length exceeding 150 miles. The mountain is encircled by a main trail, with side trails branching off to places of chief moment. The Park Superintendent reports: "By making camp each night at certain designated points in the natural parks and upland meadows, one can travel on foot by the shortest route between camps, keeping above timber line, and obtain magnificent views of the mountain and surrounding country from all angles, affording one of the most interesting scenic trips in all the world. The swing around the grand circle can be made in seven days, averaging twenty miles a day. A month could well be set apart for this never-to-be-forgotten happiness."

Camping is in high favor among outdoor enthusiasts and each year more of them plan their vacations with this end in view. Each season, by the building of new trails and lengthening the old, more marvels are made accessible.

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On the Indian Henry Trail—one of the favorite trails which forms the 150 miles of the Park trail system.
Flower-covered slope at Indian Henry’s Hunting Ground—300 varieties massed in all colors as far as the eye can reach
Paradise Inn

Of rustic construction appropriate to the environment, equipped with every modern convenience, heated and lighted by electricity from its own plant, this Paradise Inn admirably fills all wants. For the many who prefer to sleep in the open, there are tents of approved and convenient type, electrically lighted and heated and adequately furnished. A cordial welcome permeates the homelike lounging room and the spacious dining room, where good meals, well served, attract the hungry whose appetites have been sharpened by the mountain air.

Paradise Camp

Near the Inn, to the west, is the new Paradise Camp, for the accommodation of those who like a closer approach to actual camping conditions than is found in the luxurious hotel rooms and bungalow tents. Commodious canvas wall tents serve as sleeping quarters, and meals may be had at the lunch pavilion. Those who think their camping experience is not complete unless they do their own cooking, may purchase groceries at the pavilion and practice the culinary art over large, open-air fires. All needed accessories may be rented at moderate charges.

Accommodations in the Park

Most of the transportation, hotel, camp and other concessions are under the control of the Rainier National Park Company. Transportation and hotel rates, and all prices for those under such control, are regulated by the Department of the Interior, which has charge of all the national parks, and are not higher than prevail at summer resorts generally. All hotels are operated on the American plan, which includes room and meals by the day. The rates are $4.25 to $5.00 a day for tent rooms, and $5.00 to $8.00 for hotel rooms, the higher prices being for rooms with bath.

Guides, horses, and outfits are furnished by the Rainier National Park Company to those desiring to take short or long trail outings. From Longmire Springs and Paradise Valley are numerous enticing day outings, and some that require but a few hours, made either on foot or in saddle. In many instances no guide is needed, for the trails and by-paths are safe and there is no danger of going astray. Favorite trail side-trips out from Longmire Springs and Paradise Valley are tabulated on pages 19 and 20, with distances and points of interest. Saddle horses may be had at Longmire Springs or Paradise Valley at $3.50 a day. A competent guide and horse is furnished without charge for parties of five or more.

There are free public camping grounds at Van Trump Park, Longmire Springs and Paradise Valley which are growing in favor more each year.

To describe what is seen along the way on the scheduled little journeys within Mount Rainier National Park, would easily fill pages. Even then the story would not be half told.

Nowhere on the globe is there such a variety of views and such masses of wild flowers. All are of one mind with Edward Frank Allen, who exclaimed: "Read as much about it as you will, see it pictured a thousand times, and believe all the tales you hear of it, and on going there you will find that it has been underrated."
Season

The 1919 season of Mount Rainier National Park extends from June 15th to September 15th at Longmire Springs, and from July 1st to September 15th at Paradise Valley.

How to Reach the Park

Mount Rainier National Park is connected by automobile stages of the Rainier National Park Company with Ashford, Wash., a railroad station fifty-five miles from Tacoma, ninety-three miles from Seattle and six miles from the Park entrance.

During summer season, round-trip excursion tickets at reduced fares are sold at practically all stations in the United States to Tacoma and Seattle as destinations. Passengers holding through excursion tickets to other destinations will find stop-over privileges available. From many stations in the Northwest, excursion tickets are sold through via Ashford to points within Mount Rainier National Park.

Fares from Tacoma and Seattle to points within the Park and return, via railroad to Ashford, thence via automobile stages of the Rainier National Park Company, are as follows:

<table>
<thead>
<tr>
<th>Round-Trip from Tacoma</th>
<th>Seattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Longmire Springs....</td>
<td>$5.55</td>
</tr>
<tr>
<td>To Nisqually Glacier...</td>
<td>6.55</td>
</tr>
<tr>
<td>To Paradise Valley.....</td>
<td>8.55</td>
</tr>
</tbody>
</table>

Points of Interest Reached from Paradise Valley

<table>
<thead>
<tr>
<th>Point</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nisqually Glacier</td>
<td>1 1/4 W</td>
<td>Largest glacier on south side of Mount Rainier, west of Nisqually Glacier.</td>
</tr>
<tr>
<td>Van Trump Glacier</td>
<td>2 1/4 NW</td>
<td>Small glacier west of Nisqually Glacier.</td>
</tr>
<tr>
<td>Kautz Glacier</td>
<td>3 W</td>
<td>Adjacent to and 1,000 feet below Van Trump Park.</td>
</tr>
<tr>
<td>Kautz Peak</td>
<td>5 1/2 N</td>
<td>Good view.</td>
</tr>
<tr>
<td>Kautz Box Canyon</td>
<td>3 1/2 NW</td>
<td>Upper end of canyon near Kautz Glacier.</td>
</tr>
<tr>
<td>Bench Lake</td>
<td>1 3/4 SE</td>
<td>On lower bench overlooking Stevens Canyon.</td>
</tr>
<tr>
<td>Pinnacle Peak</td>
<td>2 3/4 SE</td>
<td>Sharp Peak on Tatoosh Range.</td>
</tr>
<tr>
<td>Stevens Peak</td>
<td>3 3/4 SE</td>
<td>At east end of Tatoosh Range.</td>
</tr>
<tr>
<td>Unicorn Peak</td>
<td>4 3/4 SE</td>
<td>Highest peak on Tatoosh Range.</td>
</tr>
<tr>
<td>Ice Caves</td>
<td>1 3/4 NE</td>
<td>At lower end Paradise Glacier; largest ice caves in Park.</td>
</tr>
<tr>
<td>Paradise Glacier</td>
<td>1 3/4 NE</td>
<td>Source of Paradise River.</td>
</tr>
<tr>
<td>Stevens Glacier</td>
<td>1 3/4 NE</td>
<td>East lobe of Paradise Glacier.</td>
</tr>
<tr>
<td>Stevens Ice Cascades</td>
<td>2 NE</td>
<td>Crevassed slope on Stevens Glacier.</td>
</tr>
<tr>
<td>Stevens Water Cascades</td>
<td>2 1/4 NE</td>
<td>At foot of Stevens Glacier.</td>
</tr>
<tr>
<td>Stevens Canyon</td>
<td>2 3/4 NE</td>
<td>Below Stevens Glacier. One mile long, 200 feet deep.</td>
</tr>
<tr>
<td>Fairy Falls</td>
<td>2 3/4 NE</td>
<td>At head of Stevens Canyon; 300 feet high.</td>
</tr>
<tr>
<td>Cowlitz Glacier</td>
<td>3 NE</td>
<td>Largest glacier on southeast side of mountain.</td>
</tr>
<tr>
<td>Cowlitz Peak</td>
<td>3 3/4 NE</td>
<td>View of surrounding glaciers.</td>
</tr>
<tr>
<td>Cathedral Rocks</td>
<td>3 3/4 NE</td>
<td>Lofty spires on divide north of Cowlitz Glacier.</td>
</tr>
</tbody>
</table>

On the Van Trump Trail, from which many excellent views are obtained, and which leads to Van Trump Park, a flower-covered camping spot.
Points of Interest Reached from Longmire Springs

<table>
<thead>
<tr>
<th>Ramparts</th>
<th>11 1/2 W</th>
<th>Ridge north of Nisqually River.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tahoma Glacier</td>
<td>7 1/2</td>
<td>Clear ice glacier from which flows Tahoma Park of Nisqually River.</td>
</tr>
<tr>
<td>Christine Falls</td>
<td>4 1/4 N</td>
<td>On auto road to Paradise Park.</td>
</tr>
<tr>
<td>Comet Falls</td>
<td>6 N</td>
<td>On Van Trump trail.</td>
</tr>
<tr>
<td>Marie Falls</td>
<td>5 N</td>
<td>On road to Paradise Park.</td>
</tr>
<tr>
<td>Glacier</td>
<td>5 N</td>
<td>Near bridge crossing Nisqually River on Government road.</td>
</tr>
<tr>
<td>Ricksecker Point</td>
<td>6 1/4 N</td>
<td>Lofty point of road to Paradise Park; elevation 4,221.</td>
</tr>
<tr>
<td>Paradise River and Canyon</td>
<td>9 N</td>
<td>600 feet below auto road.</td>
</tr>
<tr>
<td>Ruby Falls</td>
<td></td>
<td>Road 9 1/4 NE Trail 5 NE Upper cascades of Paradise River a short distance below Paradise Valley.</td>
</tr>
<tr>
<td>Second Crossing Paradise River, Washington</td>
<td>10 NE</td>
<td>Trail 5 1/4 NE View of Paradise River; Washington Torrents in foreground.</td>
</tr>
<tr>
<td>Third Crossing Paradise River, Ruby Falls</td>
<td>10 1/4 N</td>
<td>View of river and Ruby Falls.</td>
</tr>
<tr>
<td>Inspiration Point</td>
<td>10 1/4 N</td>
<td>First view of Paradise Valley.</td>
</tr>
<tr>
<td>Horseshoe Bend</td>
<td>9 1/4 N</td>
<td>High trestle overlooking Narada Falls.</td>
</tr>
<tr>
<td>Paradise Inn</td>
<td>14 N</td>
<td>Hotel and camp located on Theosophy Ridge, Paradise Valley; Elevation 5,558.</td>
</tr>
<tr>
<td>Paradise Valley</td>
<td>11 1/4 N</td>
<td>Park at base of Mount Rainier; excellent camping ground; reached by auto.</td>
</tr>
<tr>
<td>Carter Falls</td>
<td>3 1/4 NE</td>
<td>Trail on Paradise River.</td>
</tr>
<tr>
<td>Narada Falls</td>
<td>4 1/2 NE</td>
<td>Road 9 1/4 NE Principal falls on Paradise River, with sheer drop of 150 feet; elevation 4,572; reached by auto.</td>
</tr>
<tr>
<td>Sluiskin Falls</td>
<td>13 NE Trail 6 1/4 NE High fall of Paradise River at head of Paradise Valley.</td>
<td></td>
</tr>
<tr>
<td>Pyramid Peak</td>
<td>8 N</td>
<td>Highest peak in Indian Henry's Hunting Ground; easy to ascend; elevation 6,940.</td>
</tr>
<tr>
<td>Mirror Lake</td>
<td>7 1/4 N</td>
<td>Reflects Mount Rainier.</td>
</tr>
<tr>
<td>Eagle Peak</td>
<td>3 1/4 E</td>
<td>At west end of Tatoosh Range; good trail leads to open parks short distance below; elevation 5,961.</td>
</tr>
<tr>
<td>Mount Ararat</td>
<td>6 3/4 N</td>
<td>High hill in Indian Henry's Hunting Ground; petrified wood found here.</td>
</tr>
<tr>
<td>Iron Mountain</td>
<td>6 3/4 N</td>
<td>Twin mountains in Indian Henry's Hunting Ground; crystal ledges on Crystal Mountain.</td>
</tr>
<tr>
<td>Crystal Mountain</td>
<td>6 3/4 N</td>
<td>Crystal Mountain.</td>
</tr>
<tr>
<td>Reflection Lakes</td>
<td>1 1/2 SW</td>
<td>On bench north of Pinnacle Peak, Tatoosh Range.</td>
</tr>
</tbody>
</table>

U. S. Government Publications

The following publications may be obtained from the Superintendent of Documents, Government Printing office, Washington, D. C., at prices given. Remittances should be by money order or in cash.

Mount Rainier and Its Glaciers, by F. E. Matthes. 48 pages, 25 illustrations. 15 cents.
Features of the Flora of Mount Rainier National Park, by J. B. Flett. 48 pages, 40 illustrations. 25 cents.
Forests of Mount Rainier National Park, by G. F. Allen. 32 pages, 27 illustrations. 20 cents.
Panoramic View of Mount Rainier National Park, 19 x 20 inches. 25 cents.

The following may be obtained from the director of the United States Geological Survey, Washington, D. C., at price given:
Map of Mount Rainier National Park, 22 x 23 inches. 10 cents.

The following publications may be obtained free on written application to the director of the National Park Service, Washington, D. C., or by personal application to the office of the superintendent at the entrance to the Park:

Circular of general information regarding Mount Rainier National Park.
Glimpses of our National Parks. 48 pages, illustrated.
Map showing location of National Parks and National Monuments and railroad routes thereto.

U. S. R. R. Administration Publications

The following publications may be obtained free on application to any Consolidated Ticket Office; or apply to the Bureau of Service National Parks and Monuments, or Travel Bureau—Western Lines, 646 Transportation Building, Chicago, Ill.:
Arizona and New Mexico Rockies.
California for the Tourist.
Colorado and Utah Rockies.
Crater Lake National Park, Oregon.
Glacier National Park, Montana.
Grand Canyon National Park, Arizona.
Hawaiian National Park, Hawaiian Islands.
Hot Springs National Park, Arkansas.
Northern Lakes—Wisconsin, Minnesota, Upper Michigan, Iowa and Illinois.
Mesa Verde National Park, Colorado.
Pacific Northwest and Alaska.
Petrified Forest National Monument, Arizona.
Rocky Mountain National Park, Colorado.
Sequoia and General Grant National Parks, California.
Yosemite National Park, California.
Zion National Monument, Utah.
Mount Rainier, as seen from Indian Henry's Hunting Ground
The National Parks at a glance

United States Railroad Administration
Director General of Railroads

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- Bremerton, Wash. 224 Front St.
- Butte, Mont. 2 N. Main St.
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- Colorado Springs, Colo. 119 E. Pike's Peak Ave.
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- Des Moines, Iowa. 403 Walnut St.
- Denver, Colo. 702 Houston St.
- Duluth, Minn. 334 W. Superior St.
- Fort Worth, Tex. 702 Houston St.
- Fresno, Cal. 131 W. Grand Ave.
- Galveston, Tex. 21st and Market Sts.
- Helena, Mont. 58 S. Main St.
- Houston, Tex. 904 Texas Ave.
- Lincoln, Neb. 104 N. 13th St.
- Little Rock, Ark. 202 W. 2d St.
- Long Beach, Cal. L. & S. L. Station
- Los Angeles, Cal. 221 S. Broadway
- Milwaukee, Wis. 99 Wisconsin St.
- Minneapolis, Minn. 202 Sixth St.
- Oakland, Cal. 13th St. and Broadway
- Oklahoma City, Okla. 131 W. Grand Ave.
- Omaha, Neb. 1416 Dodge St.
- Phoenix, Ariz. Adams St. and Central Ave.
- Portland, Ore. 3d and Washington Sts.
- Pueblo, Colo. 401-3 N. Union Ave.
- St. Louis, Mo. 318-328 N. Broadway

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- Cleveland, Ohio. 6th and Main Sts.
- Columbus, Ohio. 1004 Prospect Ave.
- Dayton, Ohio. 70 East Gay St.
- Detroit, Mich. 13 W. Lafayette Ave.
- Evansville, Ind. L. & N. R. R. Bldg.
- Grand Rapids, Mich. 125 Pearl St.
- Indianapolis, Ind. 112-14 E. 12th St.
- Montreal, Que. 238 St. James St.
- Newark, N. J. Clinton and Beaver Sts.
- New York, N. Y. 64 Broadway
- New York, N. Y. 57 Chambers St.
- New York, N. Y. 31 W. 32d St.

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- Asheville, N. C. 14 S. Polk Square
- Atlanta, Ga. 74 Peachtree St.
- Augusta, Ga. 611 Broad St.
- Birmingham, Ala. 2010 1st Ave.
- Charleston, S. C. Charleston Hotel
- Charlotte, N. C. 22 S. Tryon St.
- Chattanooga, Tenn. 817 Market St.
- Columbia, S. C. Arcade Bldg.
- Jacksonville, Fla. 38 W. Bay St.
- Lexington, Ky. Union Station
- Lynchburg, Va. 722 Main St.
- Memphis, Tenn. 60 N. Main St.
- Mobile, Ala. 51 S. Royal St.
- Montgomery, Ala. Exchange Hotel
- Nashville, Tenn. Independent Life Bldg.
- New Orleans, La. St. Charles Hotel
- Norfolk, Va. Monticello Hotel
- Paducah, Ky. 430 Broadway
- Pensacola, Fla. San Carlos Hotel
- Richmond, Va. 830 E. Main St.
- Savannah, Ga. 37 Bull St.
- Sheffield, Ala. Sheffield Hotel
- Tama, Fla. Hillsboro Hotel
- Winston-Salem, N. C. 236 N. Main St.

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Narada Falls, in the Paradise River Canyon—beautiful falls framed by overhanging trees