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GENERAL INFORMATION
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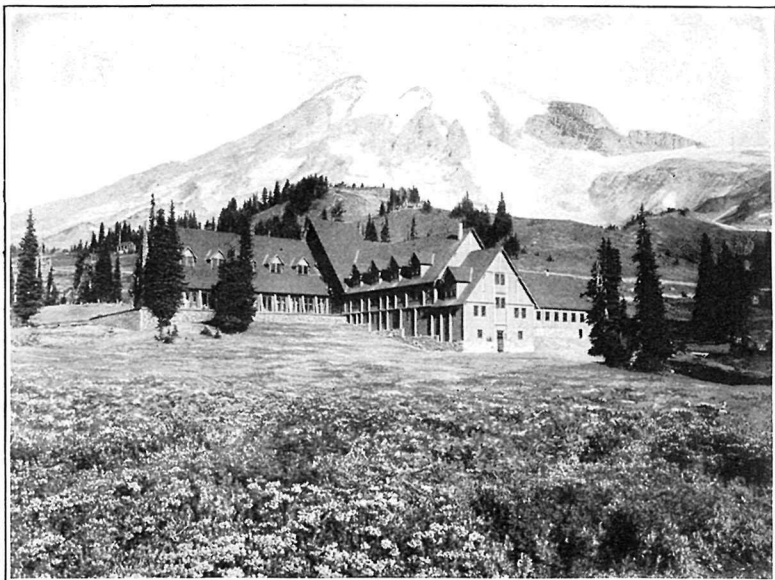
MOUNT RAINIER NATIONAL PARK

1919

Season from June 15 to September 15

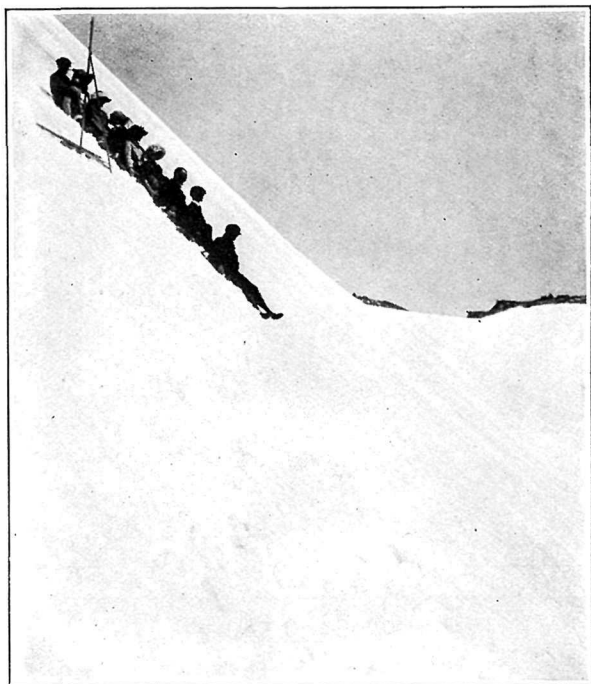


WASHINGTON
GOVERNMENT PRINTING OFFICE
1919



NEW PARADISE INN, IN BEAUTIFUL PARADISE VALLEY.

Note the wild flowers in the foreground.



Winter sports in summer. The human toboggan.

THE NATIONAL PARKS AT A GLANCE.

[Number, 18; total area, 10,739 square miles.]

National parks in order of creation.	Location.	Area in square miles.	Distinctive characteristics.
Hot Springs..... 1832	Middle Arkansas.....	1½	46 hot springs possessing curative properties—Many hotels and boarding houses—20 bath houses under public control.
Yellowstone..... 1872	Northwestern Wyoming.	3,348	More geysers than in all rest of world together—Boiling springs—Mud volcanoes—Petrified forests—Grand Canyon of the Yellowstone, remarkable for gorgeous coloring—Large lakes—Many large streams and waterfalls—Vast wilderness, greatest wild bird and animal preserve in world—Exceptional trout fishing.
Sequoia..... 1890	Middle eastern California.	252	The Big Tree National Park—12,000 sequoia trees over 10 feet in diameter, some 25 to 36 feet in diameter—Towering mountain ranges—Startling precipices—Cave of considerable size.
Yosemite..... 1890	Middle eastern California.	1,125	Valley of world-famed beauty—Lofty cliffs—Romantic vistas—Many waterfalls of extraordinary height—3 groves of big trees—High Sierra—Waterwheel falls—Good trout fishing.
General Grant..... 1890	Middle eastern California.	4	Created to preserve the celebrated General Grant Tree, 35 feet in diameter—6 miles from Sequoia National Park.
Mount Rainier..... 1899	West central Washington.	324	Largest accessible single peak glacier system—28 glaciers, some of large size—48 square miles of glacier, 50 to 500 feet thick—Wonderful sub-alpine wild flower fields.
Crater Lake..... 1902	Southwestern Oregon.	249	Lake of extraordinary blue in crater of extinct volcano—Sides 1,000 feet high—Interesting lava formations—Fine fishing.
Wind Cave..... 1903	South Dakota.....	17	Cavern having many miles of galleries and numerous chambers containing peculiar formations.
Platt..... 1904	Southern Oklahoma..	1½	Many sulphur and other springs possessing medicinal value.
Sullys Hill..... 1904	North Dakota.....	1½	Small park with woods, streams, and a lake—Is an important wild-animal preserve.
Mesa Verde..... 1906	Southwestern Colorado.	77	Most notable and best preserved prehistoric cliff dwellings in United States, if not in the world.
Glacier..... 1910	Northwestern Montana.	1,534	Rugged mountain region of unsurpassed Alpine character—250 glacier-fed lakes of romantic beauty—60 small glaciers—Precipices thousands of feet deep—Almost sensational scenery of marked individuality—Fine trout fishing.
Rocky Mountain... 1915	North middle Colorado.	397½	Heart of the Rockies—Snowy range, peaks 11,000 to 14,250 feet altitude—Remarkable records of glacial period.
Hawaii..... 1916	Hawaii.....	118	Three separate areas—Kilauea and Mauna Loa on Hawaii; Haleakala on Maui.
Lassen Volcanic.... 1916	Northern California..	124	Only active volcano in United States proper—Lassen Peak 10,465 feet—Cinder Cone 6,879 feet—Hot springs—Mud geysers.
Mount McKinley... 1917	South central Alaska..	2,200	Highest mountain in North America—Rises higher above surrounding country than any other mountain in world.
Grand Canyon..... 1919	North central Arizona.	958	The greatest example of erosion and the most sublime spectacle in the world.
Lafayette..... 1919	Maine coast.....	8	The group of granite mountains upon Mount Desert Island.

The National Parks Portfolio

By ROBERT STERLING YARD

Chief, Educational Division
National Park Service

Pamphlet Edition

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A presentation of the national parks and national monuments in picture. The selection is from the best work of many photographers, professional and amateur. It contains nine sections descriptive each of a national park, and one larger section devoted to other parks and monuments. 260 pages, including 270 illustrations

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GENERAL INFORMATION REGARDING MOUNT RAINIER NATIONAL PARK.

GENERAL DESCRIPTION.

“OF all the fire-mountains which, like beacons, once blazed along the Pacific coast, Mount Rainier is the noblest,” wrote John Muir. “The mountain that was God,” wrote John D. Williams, giving title to his book.

“Easily King of all is Mount Rainier,” wrote F. E. Matthes, of the United States Geological Survey, reviewing that series of huge extinct volcanoes towering high above the sky line of the Cascade Range. “Almost 250 feet higher than Mount Shasta, its nearest rival in grandeur and in mass, it is overwhelmingly impressive both by the vastness of its glacial mantle and by the striking sculpture of its cliffs. The total area of its glaciers amounts to no less than 48 square miles, an expanse of ice far exceeding that of any other single peak in the United States. Many of its individual ice streams are between 4 and 6 miles long and vie in magnitude and in splendor with the most boasted glaciers of the Alps. Cascading from the summit in all directions, they radiate like the arms of a great starfish.”

Mount Rainier is in western Washington, about 40 miles due south-east from the city of Tacoma and about 55 miles southeast from Seattle. It is not a part of the Cascade Range proper, but its summit is about 12 miles west of the Cascade summit line, and is therefore entirely within the Pacific slope drainage system.

The Mount Rainier National Park is a rectangle approximately 18 miles square, of 207,360 acres. It was made a national park by act of Congress of March 2, 1899.

The southwest corner of the park, at which is the main entrance, is distant by automobile road 6 miles from Ashford on the Tacoma Eastern Railroad, 56 miles from Tacoma, and 96 miles from Seattle.

Seen from Tacoma or Seattle the vast mountain appears to rise directly from sea level, so insignificant seem the ridges about its base. Yet these ridges themselves are of no mean height. They rise 3,000 to 4,000 feet above the valleys that cut through them, and their crests average 6,000 feet in altitude. Thus at the southwest entrance of the park, in the Nisqually Valley, the elevation, as determined by accurate spirit leveling, is 2,003 feet, while Mount Wow (Goat Mountain), immediately to the north, rises to an altitude of 6,030 feet.

ITS GREAT PROPORTIONS.

But so colossal are the proportions of the great volcano that they dwarf even mountains of this size and give them the appearance of mere foothills. In height it is second in the United States only to Mount Whitney.

ILLUSTRATIONS.

COVER.

Mount Rainier from Paradise Valley, showing beginning of Nisqually Glacier.....	Front
New Paradise Inn in beautiful Paradise Valley.....	Inside front
Winter sports in summer—The human toboggan.....	Inside front
Seed pods of anemone.....	Inside back
Western anemone.....	Inside back
The Tatoosh Range.....	Back

TEXT.

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Mount Rainier stands, in round numbers, 11,000 feet above its immediate base, is nearly 3 miles high, measured from sea level, and covers 100 square miles of territory, or one-third of the area of Mount Rainier National Park. In shape it is not a simple cone tapering to a slender, pointed summit like Fuji (Fujiyama), the great volcano of Japan. It is rather a broadly truncated mass resembling an enormous treestump with spreading base and irregularly broken top.

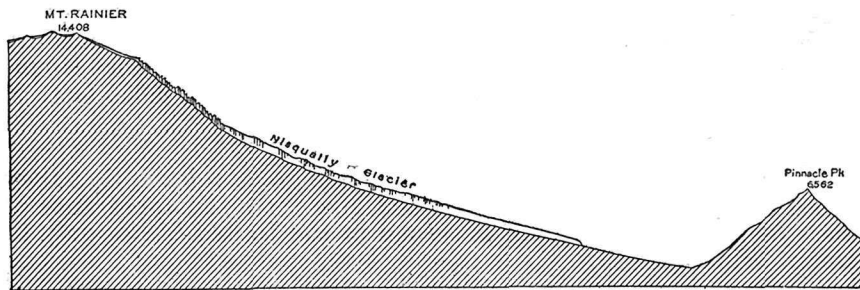
Its life history has been a varied one. Like all volcanoes, Rainier has built up its cone with the materials ejected by its own eruptions—with cinders and steam-shredded particles and lumps of lava and with occasional flows of liquid lava that have solidified into layers of hard, basaltic rock. At one time it attained an altitude of not less than 16,000 feet, if one may judge by the steep inclination of the lava and cinder layers visible in its flanks. Then a great explosion followed that destroyed the top part of the mountain and reduced its height by some 2,000 feet.

Indian legends tell of a great eruption. There have been slight eruptions within memory—one in 1843, one in 1854, and one in 1858, and the last in 1870. Even now it is only dormant. Jets of steam melt fantastic holes in the snow and ice at its summit, and there are hot springs at its foot. But it is entirely safe to visit Mount Rainier, as further eruptions are unlikely.

SECOND LOFTIEST TO WHITNEY.

Later on this great cavity, which measured nearly 3 miles across from south to north, was filled by two small cinder cones. Successive feeble eruptions added to their height until at last they formed together a low rounded dome—the eminence that now constitutes the mountain's summit. The higher portions of the old crater rim rise to elevations within a few hundred feet of the summit and, especially when viewed from below, stand out boldly as separate peaks that mask and seem to overshadow the central dome. Especially prominent are Point Success (14,150 feet) on the southwest side and Liberty Cap (14,112 feet) on the northwest side.

The altitude of the main summit has for many years been in doubt. Several figures have been announced from time to time, no two of them in agreement with each other; but all of these, it is to be observed, were obtained by more or less approximate methods. In 1913 the United States Geological Survey, in connection with its topographic surveys of the Mount Rainier National Park, made a new series of measurements by triangulation methods at close range.



PROFILE OF MOUNT RAINIER SHOWING NISQUALLY GLACIER.

These give the peak an elevation of 14,408 feet, thus placing it near the top of the list of high summits of the United States. This last figure, it should be added, is not likely to be in error by more than a foot or two, and may with some confidence be regarded as final. Greater exactness of determination is scarcely practicable in the case of Mount Rainier, as its highest summit consists actually of a mound of snow, the height of which naturally varies.

This crowning snow mound, which was once supposed to be the highest point in the United States, still bears the proud name of Columbia Crest. It is essentially a huge snowdrift or snow dune heaped up by the furious westerly winds.

A GLACIAL OCTOPUS.

One of the largest glacier systems in the world radiating from any single peak is situated on this mountain. A study of the map will show a snow-covered summit with great arms of ice extending from it down the mountain sides, to end in rivers far below. Six great glaciers appear to originate at the very summit. They are the Nisqually, the Ingraham, the Emmons, the Winthrop, the Tahoma, and the Kautz glaciers. But many of great size and impressiveness are born of the snows in rock pockets or cirques, ice-sculptured bowls of great dimensions and ever-increasing depth, from which they merge into the glistening armor of the huge volcano. The most notable of these are the Cowlitz, the Paradise, the Fryngpan, the Carbon, the Russell, the North and South Mowich, the Puyallup, and the Pyramid glaciers.

Twenty-eight glaciers, great and small, clothe Rainier—rivers of ice, with many of the characteristics of rivers of water, roaring at times over precipices like waterfalls, rippling and tumbling down rocky slopes—veritable noisy cascades, rising smoothly up on hidden rocks to foam, brooklike, over its lower edges.

Every winter the moisture-laden winds from the Pacific, suddenly cooled against its summit, deposit upon its top and sides enormous snows. These, settling in the crater which was left after the great explosion in some prehistoric age carried away perhaps 2,000 feet of the volcano's former height, press with overwhelming weight down the mountain's sloping sides.

Thus are born the glaciers, for the snow under its own pressure quickly hardens into ice. Through 14 valleys self-carved in the solid rock flow these rivers of ice, now turning, as rivers of water turn, to avoid the harder rock strata, now roaring over precipices like congealed waterfalls, now rippling, like water currents, over rough bottoms, pushing, pouring relentlessly on until they reach those parts of their courses where warmer air turns them into rivers of water.

WEALTH OF GORGEOUS FLOWERS.¹

In glowing contrast to this marvelous spectacle of ice are the gardens of wild flowers surrounding the glaciers. These flowery spots are called parks. One will find on the accompanying map Spray Park, St. Andrews Park, Indian Henrys Hunting Ground, Paradise, Summerland; and there are many others.

¹ The most abundant flowers are described in the illustrated publication entitled "Features of the Flora of Mount Rainier National Park," which may be obtained from the Superintendent of Documents, Washington, D. C., for 25 cents. It may be purchased also by personal application at the office of the superintendent at the entrance to the park, but that office can not fill mail orders.

"Above the forests," writes John Muir, "there is a zone of the loveliest flowers, 50 miles in circuit and nearly 2 miles wide, so closely planted and luxurious that it seems as if nature, glad to make an open space between woods so dense and ice so deep, were 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, etc., among which we wade knee deep and waist deep, the bright corollas in myriads touching petal to petal. Altogether this is the richest subalpine garden I have ever found, a perfect flower elysium."

The lower altitudes of the park are densely timbered with fir, cedar, hemlock, maple, alder, cottonwood, and spruce. The forested areas, extending to an altitude of about 6,500 feet, gradually decrease in density of growth after an altitude of 4,000 feet is reached, and the high, broad plateaus between the glacial canyons present incomparable scenes of diversified beauties.

FOREST TYPES.¹

The forests of the Mount Rainier National Park contain few deciduous trees, but are remarkable for the variety and beauty of their conifers. The distribution of species and their mode of growth, the size of the trees, and the density of the stand are determined, primarily, by the altitude.

The dense evergreen forests characteristic of the lower western slopes of the Cascades extend into the park in the valleys of the main and West Fork of White River, the Carbon, the Mowich, the Nisqually, and the Ohanapecosh. Favored by the warm and equable temperatures and the moist, well-drained soil of the river bottoms and protected from the wind by the inclosing ridges, the trees are perfectly proportioned and grow to a great height. The forest is of all ages from the seedling concealed in the undergrowth to the veteran 4 to 8 feet in diameter and perhaps 400 years old. The average increase at the stump in valley land is about 1 inch in six years. A Douglas fir growing along the stage road between the park boundary and Longmire's, at the age of 90 to 120 years, may have a breast diameter of 20 inches and yield 700 feet of saw timber. But many of the trees of this size may be much older on account of having grown in the shade or under other adverse conditions. The trees between 200 and 300 years of age are often 40 to 50 inches in diameter and may yield an average of from 2,700 to 5,500 board feet. The largest Douglas firs are sometimes over 400 years old and 60 to 70 inches in diameter. Such trees when sound will produce over 8,000 feet of lumber. Up to 3,000 feet the forests about Mount Rainier are composed of species common throughout the western parts of British Columbia, Washington, Oregon, and northern California. The dominant trees are the western hemlock and the Douglas fir. While these trees compose the type peculiar to the bottom lands, they are not confined to it, but extend to the ridges and continue to be the prevailing species up to 3,000 feet. The stand on the mountain

¹ The forest trees are described in the illustrated publication entitled "Forests of Mount Rainier National Park," by G. F. Allen, supervisor Rainier National Forest, which may be obtained from the Superintendent of Documents, Washington, D. C., for 20 cents. It may be purchased also by personal application at the office of the superintendent of the park at the entrance, but that office can not fill mail orders. The statement given here is a résumé of the publication cited.

slopes is lighter and more open, and the trees are smaller. Huckleberry bushes and other shrubs adapted to the drier soil of the foothills, Oregon grape, and salal take the place of the tall and dense undergrowth of the bottom lands, and the amount of fallen timber is noticeably less.

Between the elevations of 3,000 and 4,500 feet the general character of the forest is intermediate between that of the lowland type and the subalpine growth of the high mountains. The forest is continuous, except where broken by extremely steep slopes and rocky crests where sufficient soil has not accumulated to support arborescent growth. In general, there is little undergrowth. The stand is fairly close on flats, benches, and moderate slopes and more open on exposed situations and wind-swept ridges. The prevailing trees are the amabilis and noble fir. They sometimes grow separately in pure stands, but more often are associated. At the lower limits of this type they are mixed with the Douglas fir and hemlock, while subalpine species appear at the upper limits.

A large part of the area above the 4,500-foot contour consists of open, grassy parks, rocky and barren summits, snow fields, and glaciers. Tracts of dense subalpine forest occur in sheltered locations, but they are nowhere very extensive, and their continuity is broken by open swamp glades and meadows and small bodies of standing water. The steep upper slopes of the spurs diverging from the main ridges are frequently covered with a stunted, scraggy growth of low trees firmly rooted in the crevices between the rocks. The most beautiful of the alpine trees are about the mountain parks. Growing in scattered groves and standing in groups or singly in the open grassland and on the margins of the lakes, they produce a peculiarly pleasing landscape effect which agreeably relieves the traveler from the extended outlook to the snow fields of the mountain and broken ridges about it. At the lower levels of the subalpine forest the average height of the largest trees is from 50 to 60 feet. The size diminishes rapidly as the elevation increases. The trees are dwarfed by the cold, and their trunks are bent and twisted by the wind. Small patches of low, weather-beaten, and stunted mountain hemlock, alpine fir, and white-bark pine occur up to 7,000 feet. A few diminutive mountain hemlock grow above this elevation. The trunks are quite prostrate, and the crowns are flattened mats of branches lying close to the ground. The extreme limit of tree growth on Mount Rainier is about 7,600 feet. There is no distinct timberline.

Notwithstanding the shortness of the summer season at high altitudes, the subalpine forests in some parts of the park have suffered severely from fire. There has been little apparent change in the alpine burns within the last 30 years. Reforestation at high altitudes is extremely slow. The seed production is rather scanty, and the ground conditions are not favorable for its reproduction. It will take more than one century for nature to replace the beautiful groves which have been destroyed by the carelessness of the first visitors to the mountain. At low elevations the forest recovers more rapidly from the effects of fire. Between the subalpine areas and the river valleys there are several large, ancient burns which are partly reforested. The most extensive of these tracts is the Muddy Fork Burn. It is crossed by the Stevens Canyon Trail from Reflection Lakes to

the Ohanapecosh Hot Springs. This burn includes an area of 20 square miles in the park and extends north nearly to the glaciers and south for several miles beyond the park boundary nearly to the main Cowlitz River. The open sunlit spaces and wide outlooks afforded by reforested tracts of this character present a strong contrast to the deep shades and dim vistas of the primitive forest. On the whole, they have a cheerful and pleasing appearance very different from the sad, desolate aspect of the alpine burns, which less kindly conditions of climate and exposure have kept from reforestation.

NOTES ON THE WILD FLOWERS.¹

The flowering plants in the forest in the zone ranging from 2,000 feet to 4,000 feet are those adapted to grow in the shade. Many of these live on decayed vegetation instead of preparing their own food as ordinary plants do under the action of light on the green coloring matter in their leaves. Some of these so-called flowering plants have in reality become fungi, depending wholly on other plants for their food. Two forms of the ghost plant or Indian pipe are good examples of these colorless forms. In addition to these saprophytic plants there are many others providing their own living, such as the Indian pipsissewa, the pyrolas, and the moneses, producing beautiful waxy flowers. Nearly everywhere through the moss grows the little bunch berry or Canada dogwood. Close companions of the latter are the forest anemone, the ovate trillium, and the beautiful white, one-flowered clintonia. The sword fern, deer fern, oak fern, lady fern, and maidenhair fern all vie with each other in producing a beautiful setting among those giant trees and graceful flowering plants.

Many trails wind through these enchanted woods, giving the tourist an opportunity to forget the cares of business life and see nature at its best.

In the upper area of this zone the squaw grass, mertens, corral root, the racemose pedicularis, the secund pyrola, and the ovate salal are typical plants. Here and there along the roadside the beautiful twin flower hangs down gracefully over the embankments, filling the air with its fragrance. This can be seen along the road long before the park is reached, though at its best between 2,000 and 3,000 feet elevation.

At about 4,000 feet the glacial valleys make openings into the forest. In the open places the plants of the higher regions often blend with those of the forest areas. In many places the sinuate mountain alder, the devil's club, and the salmon berry form dense jungles. The spring beauties, pentstemons, monkey flowers, luinas, stoncropps, and mertensias are common on the old moraines and moist places.

The forest continues up to 4,500 feet, at which elevation the grassy meadows begin. Here begins also the real floral beauty of the park. The lower meadows are generally moist and often swampy. The typical plants are the cotton grass, spiraeas, asters, erythroniums, arnicas, monkey flowers, the creamy firewood, swamp speedwells, sedges, and willows. These moist meadows soon give way to dry grassy areas interspersed with beautiful symmetrical tree groups. As elevation increases the groups of trees diminish in both number and

size until timber line is reached, when they form prostrate mats at about 6,700 feet.

The region of the greatest floral beauty is about 5,400 feet. Here the plants are large, growing in fertile soil. Here the color of the leaves as well as the floral organs are superb. All colors are represented. The principal plants having red flowers in this zone are Indian paint brush, Lewis's monkey flower, red heather, rosy spiraea, and the fireweeds; those having white flowers are valerians, mountain dock, saxifrages, avalanche lilies, several umbelliferous plants, and the cudweeds; those having blue flowers are speedwells, lupines, mertensias, pentstemons, and violets; those having yellow flowers are the arnicas, potentillas, buttercups, deertongues, stoncropps, mountain dandelions, and monkey flowers.

The principal plants in the pumice fields above timber line are the mountain phlox, golden aster, Lyall's lupine, yellow heather, scarlet pentstemon, hulsea nana, purple phacelia, golden draba, and smelowskia. The last two vie with each other for attaining the highest altitude.

SCENIC APPROACHES FROM TACOMA.

Leading south as the crow flies, down the main business artery of Tacoma, the highway to the park really begins in the very business center of the city. For 28 miles the railroad and the highway, paralleling each other, run along the base of huge timbered bluffs which rise sheer from the prairie level, or through timbered copses and huddling jack pines that dot the landscape, mirroring themselves in the crystal water of many lakes.

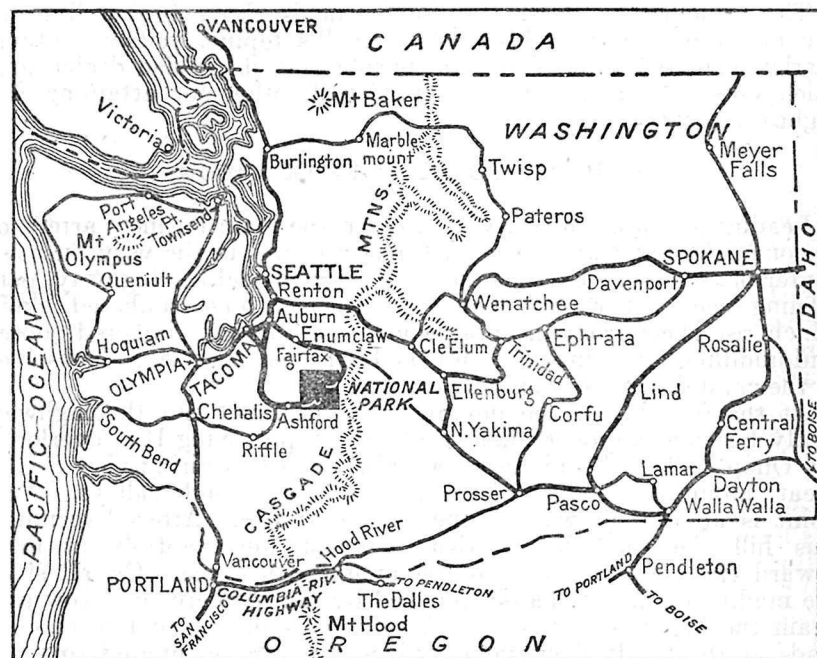
At the foothills of the mountain the railroad and the highway really become canyon roads. From the top of King Hill, overlooking Ohop Valley, the highway affords a most inspiring view of the great mountain and its surrounding peaks and valleys. This point is about half way to the park entrance. After descending this hill the road begins rising, almost imperceptibly at first, toward the eternal snows on the mountain's dome. On all sides are mighty firs as yet barely touched by the lumbermen. Now and again the highway—smooth surfaced from January to December—leads at the brink of canyons; gullies they are, compared to what come farther toward the clouds. Here the road turns suddenly on itself and in a twinkling is across the valley's floor. A few hundred yards and it begins again to climb, this time through fir forests a hundred times more splendid than were found before the Ohop was reached.

Presently the traveler finds himself looking down a sheer thousand feet to where the Nisqually River threads its way to the sea. This is the Nisqually Canyon. How the road ever came to wind its very lip is one of the marvels that only the engineer can explain. Near the lower end of the canyon is a great commercial enterprise, made possible by the great glaciers of the Mount Rainier National Park. The city of Tacoma has built a \$2,500,000 electric plant, and electric light and power are furnished in abundance for the citizens of that municipality, and from the road a full view of the huge project unfolds.

¹ By J. B. Flett, park ranger in Mount Rainier National Park.

For seeming miles of breathless interest the road runs perilously above the canyon; then, presently, it plunges anew into the endless forests of fir and goes on and on, always gently climbing. Of a sudden a macadam surface is encountered. The county of Pierce has hard-surfaced 6 miles of the stretch, stopping its work only at the line where the Government control begins—the edge of the Rainier National Forest. The railroad ends at Ashford, six miles from the park entrance. At this point motor stages pick up the travelers by rail.

Almost at the southwest corner of the Mount Rainier National Park the road makes its entry from the outer reserve. Here a huge log gate has been erected, and through this gate alone



PRINCIPAL AUTOMOBILE ROADS IN WASHINGTON

may comfortable entry be had to this portion of the mountain park with vehicles. Just inside the gate is a lodge, where the visitor must register and become apprised of the rules; then on and on the road plunges, through timber so dense the earlier forests seem pigmy, with glimpses of the mountain breaking through ever and anon and the sound of many rushing waters coming through the trees, until at a sudden turn an evidence of civilization presents itself in the form of the National Park Inn and Longmire Springs.

The mountain road really begins at Longmire Springs. By switch-back and crooked twist it rises gradually into the clouds, doubling back and forth on itself far below, every foot revealing some new glory that beggars word description. After $5\frac{1}{2}$ miles the way leads on to a bridge. At the left, less than a thousand feet away, a huge

wall of ice rears into the air. This is the snout of Nisqually Glacier and the beginning of the Nisqually River.

From the glacier the road leads on, with devious windings and turnings, through scenery more glorious every yard, until finally, where eternal snows begin, it ends.

WHAT TO WEAR—WHAT TO TAKE WITH YOU.

Reasonably warm clothing should be worn by all park visitors and they should be prepared for sudden changes of weather and altitude.

Those who intend to live in the open or to do any hiking should give particular attention to the footwear to be worn after leaving hotel or camp. Medium-weight shoes, hobnailed, will suffice for all ordinary tramping, but for ice climbing calks instead of hobnails should be used. If the services of guides are to be engaged the guides will provide the calked shoes, clothing, alpenstocks, colored glasses, and face paints necessary for trips over snow and ice fields. Arrangements for guides on the South Side can be made with the Rainier National Park Co.

Visitors who intend to camp in the public camp grounds should furnish their own tents, bedding, cooking utensils, provisions, etc. There are grocery stores at Ashford and Longmire Springs where provisions may be purchased by campers. Provisions may also be purchased from the Rainier National Park Co. at Paradise Valley.

ADMINISTRATION.

The Mount Rainier National Park was established by the act of March 2, 1899 (30 Stat., 993). The representative of the National Park Service in immediate charge of the park is the superintendent. A force of rangers assist this officer in protecting the reservation. Exclusive jurisdiction over the park was ceded to the United States by act of the Washington Legislature dated March 16, 1901, and accepted by Congress by act approved June 30, 1916 (39 Stat., 243). Mr. Edward S. Hall is the United States Commissioner for the park.

The tourist season extends from June 15 to September 15. The address of the superintendent is Longmire, Wash., between June 15 and September 15, and Ashford, Wash., during the remainder of the year. General information may be obtained from the superintendent. All complaints should be addressed to him.

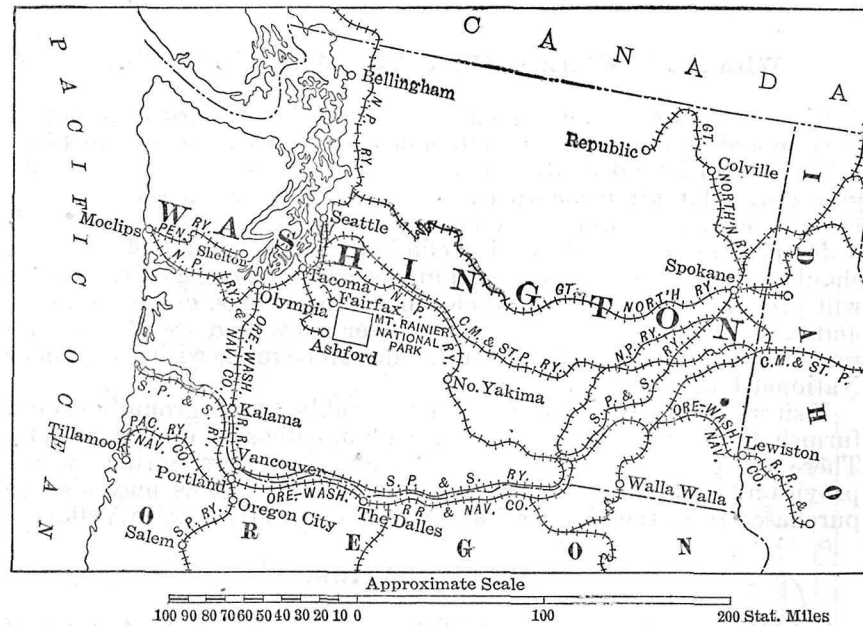
HOW TO REACH THE PARK.

Railroad information.

Mount Rainier National Park is connected by automobile stages of the Rainier National Park Co. with Ashford, Wash., a station on the Chicago, Milwaukee & St. Paul Railroad 55 miles from Tacoma, 93 miles from Seattle, and 6 miles from the park entrance.

During summer season, round-trip excursion tickets at reduced fares are sold from 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.



RAILROAD ROUTES TO MOUNT RAINIER NATIONAL PARK.

The fares from Tacoma and Seattle to points within the Park via Chicago, Milwaukee & St. Paul Railroad to Ashford, thence via automobile stages of the Rainier National Park Co., are as follows:

	Round trip from—	
	Tacoma.	Seattle.
To Longmire Springs.....	\$6.40	\$8.70
To Nisqually Glacier.....	7.40	9.70
To Paradise Valley.....	9.40	11.70

For further information regarding railroad fares, service, etc., apply to railroad ticket agents or address Howard H. Hays, manager, Bureau of Service, National Parks and Monuments, 646 Transportation Building, Chicago, Ill. This Bureau is maintained by the United States Railroad Administration.

Trail and highway.

The southern portion of the park is reached by rail to Ashford, on the Chicago, Milwaukee & St. Paul Railroad, thence by automobile stage lines of the Rainier National Park Co. to Longmire Springs, a distance of 13 miles, 6½ of which are within the park.

The northwestern portion of the park is accessible by trail from Fairfax. The distance is 10 miles from Fairfax to the Carbon River ranger station, from which point trails lead to Crater Lake, Spray Park, Carbon Glacier, Mystic Lake, and other points of interest. Pack horses can be secured at Fairfax by engaging them in advance from H. A. Loss, post-office address, Carbonado, Wash.

The northeastern portion of the park is reached through the White River entrance, which is 39 miles from Enumclaw, over the McClellan Pass State Highway. This highway has been completed to The Dalles, Washington, 29 miles from Enumclaw. The remaining 10 miles is over the road constructed through the forest reserve of the Mount Rainier Mining Co. From the White River entrance the new Storbo Road leads to Glacier Basin, 10 miles.

From Glacier Basin, and from other points on the Storbo Road, trails lead to Chinook Pass, Owyhigh Lakes, Summerland, Yakima Park, Winthrop Glacier, Mystic Lake, and other points of interest.

The southeastern portion of the park, where the Ohanapecosh Hot Springs are located, can best be reached by trail from Narada Falls, 14 miles. This section can also be reached by trail, 13 miles from Lewis, Wash. There are no hotel and camp accommodations at the hot springs.

Auto stage service from Ashford to points within the park.

The Rainier National Park Co., post-office address Tacoma, Wash., operates 12-passenger auto stages from Ashford to points within the National Park. This service connects with the trains of the Chicago, Milwaukee & St. Paul Railroad. Rates are as follows:

	One way.	Round trip.
Between Ashford and park entrance.....	\$0.75	\$1.00
Between Ashford and Longmire Springs.....	1.50	2.00
Between Ashford and Nisqually Glacier.....	2.25	3.00
Between Ashford and Narada Falls.....	3.00	4.00
Between Ashford and Paradise Valley.....	3.75	5.00

There is at present but one automobile-road entrance to this portion of the park. This road leads out from Tacoma, Seattle, Olympia, and other Puget Sound cities, and for the greater distance from those cities is a highly improved thoroughfare to the park entrance, where it joins the Government road in the park. The distance from Tacoma is 56 miles and from Seattle 96 miles.

Auto stage service from Tacoma and Seattle to Mount Rainier National Park.¹

The Rainier National Park Co. operates regular daily automobile service from Tacoma and Seattle to points within the park at the following rates:

	One way.	Round trip.
From Tacoma to Longmire Springs.....	\$4.00	\$7.00
From Tacoma to Nisqually Glacier.....	4.75	8.00
From Tacoma to Narada Falls.....	5.50	9.00
From Tacoma to Paradise Valley.....	6.25	10.00
From Seattle to Longmire Springs.....	5.00	9.50
From Seattle to Nisqually Glacier.....	6.00	10.50
From Seattle to Narada Falls.....	7.00	11.50
From Seattle to Paradise Valley.....	8.00	12.05

¹ For transportation within the park, see p. 20.

Standard seven-passenger touring cars are used for this service.

Parties desiring exclusive use of automobile for the service between Tacoma, Seattle, and the National Park can arrange for same on the basis of six regular fares for the service desired.

The Rainier National Park Co. maintains hotels, inns, and camps in the park, as well as automobile stage transportation, garage, and other service for the accommodation of visitors.

HOTELS AND CAMPS.

NATIONAL PARK INN.

The National Park Inn at Longmire Springs is operated on the American plan only. A number of bungalows and tents are operated in connection with the hotel. An attractive club house or assembly hall of pine logs has been provided for the comfort and entertainment of visitors. Water is taken from the Nisqually River for the operation of an electric lighting and refrigerating plant. The National Park Inn is open from June 15 to September 15.

Authorized rates at National Park Inn.

One person in tent, with meals, per day.....	\$4.50
Two or more persons in tent, with meals, per day, each.....	4.00
One person in hotel room, with meals, per day.....	5.50
Two or more persons in hotel room, with meals, per day, each.....	5.00
Single meals, table d'hôte:	
Breakfast.....	1.00
Luncheon.....	1.00
Dinner.....	1.00
Children under 10, half rates.	

A discount of 10 per cent will be allowed patrons of National Park Inn who remain one week or more.

PARADISE INN.

The Paradise Inn, situated in Paradise Valley in full view of the Mountain and the Tatoosh Range, is constructed entirely of weathered logs from the Silver Forest near by. These logs show entirely to the ridgepole in the big lounging room, which is 50 by 112 feet. The dining room has about the same dimensions.

The Inn is operated on the American plan. Rooms may be had with or without private bath. One hundred 2-room bungalow tents are grouped near by and are operated in connection with the inn. Hotel rooms and bungalow tents are heated and lighted by electricity. Rooms in hotel and bungalow tents will be assigned only to guests taking all meals at the inn.

Authorized rates at Paradise Inn.

[American plan.]

One person in half of double bungalow tent, with meals, per day.....	\$5.00
Two or more persons in half of double bungalow tent, with meals, per day, each.....	4.50
One person in room, Paradise Inn, with meals per day.....	6.00
Two or more persons in room, Paradise Inn, with meals, per day, each.....	5.50
One person in room, with private bath, Paradise Inn, with meals, per day.....	8.00
Two or more persons in room, with private bath, Paradise Inn, with meals, per day, each.....	7.00
Single meals, table d'hôte:	
Breakfast.....	1.00
Luncheon.....	1.00
Dinner.....	1.25
Children under 10, half rates.	

Except when occupying rooms with private bath, a discount of 10 per cent will be allowed patrons of Paradise Inn who remain one week or more.

Patrons who desire to lease tents without meals or for partial meal service will be accommodated at the new Paradise Camp.

THE NEW PARADISE CAMP.

This camp is located about 300 yards from Paradise Inn and is operated separately. It is intended to care for visitors desiring moderately priced accommodations. Camp service only is provided here; there is no bell boy or chambermaid service. The tents are floored, provided with double beds, springs, and mattresses, and ordinary furniture, except bed covering.

Authorized rates at New Paradise Camp.

Tent with double bed, springs, mattress, washbowl, pitcher, and chair, per day.....	\$0.75
Blankets, per pair, per day.....	.20

Sheets, pillows, pillow cases, and towels may be rented at 30 cents for the first day and 20 cents per day thereafter. Two clean towels per tent will be furnished daily on this basis. Meals will be served as ordered in the lunch pavilion. A discount of 10 per cent for tent and bedding rental charges will be allowed to patrons of Paradise Camp who remain one week or more. No discount will be allowed on pavilion lunch service.

Under this plan of camping patrons may be governed entirely by their own wishes; they may bring their food supplies and blankets and live at a minimum outlay of 75 cents per day for two people, or they may take their meals at the lunch pavilion or Paradise Inn, all or in part. Cured meats, flour, sugar, coffee, etc., as well as prepared coffee, tea, and chocolate by measure will be sold at the lunch pavilion, so that patrons may purchase supplies at any time.

INDIAN HENRYS CAMP.

This camp is located at Indian Henrys Hunting Ground, 7 miles by horse trail from Longmire Springs. The old Wigwam Cabin will be equipped with a cook stove, cooking utensils, dishes and table. Sleeping quarters will be provided in tents, equipped with mattresses and bed covers, but no linen. Provisions will be supplied to parties desiring to remain over night.

A reasonable charge will be made for this service.

LUNCH PAVILIONS.

A la carte service at moderate prices will be available in lunch pavilions at Longmire Springs, and at the New Paradise Camp.

PUBLIC CAMP GROUNDS.

For the accommodation of visitors who desire to bring in their own tents, beds, cooking utensils, and food supplies free public camping grounds are provided at Longmire Springs, Van Trump Camp, and Paradise Valley.

Running water and dead timber for firewood are available at each camp. Parties desiring to camp at Longmire Springs and Paradise Valley should see the park ranger in charge of grounds for assignment.

TRANSPORTATION WITHIN THE PARK.

Transportation lines within the park are operated by the Rainier National Park Co. under a concession from the Department of the Interior, but every person is at liberty to provide his own means of transportation subject to the regulations on page 34.

The post-office address of the Rainier National Park Co. is Tacoma, Wash. During the summer season the company's headquarters in the park is maintained at Longmire Springs. The authorized rates are as follows:

AUTO STAGE SERVICE.

Rates quoted are "between stations," as the same charge is made in either direction.

Auto stage rates within park limits.

	One way.	Round trip.
Between Longmire Springs and park entrance.....	\$0.75	\$1.50
Between Longmire Springs and Nisqually Glacier.....	.75	1.00
Between Longmire Springs and Narada Falls.....	1.50	2.00
Between Longmire Springs and Paradise Valley.....	2.25	3.00

AUTOMOBILE SERVICE.

Standard seven-passenger touring cars will be furnished for the exclusive use of private parties at the following rates per passenger; minimum of four fares for this special car service:

Automobile rates within park limits.

	One way.	Round trip.
Between Longmire Springs and park entrance.....	\$1.00	\$2.00
Between Longmire Springs and Nisqually Glacier.....	1.00	2.00
Between Longmire Springs and Narada Falls.....	1.75	3.00
Between Longmire Springs and Paradise Valley.....	2.50	4.00

HORSES AND GUIDES.

The Rainier National Park Co. will maintain adequate saddle and pack-horse service for park trails. Arrangements for this service should be made at the company's office, Longmire Springs. For parties of five or more guide and horse will be furnished without charge. For parties of less than five a charge of \$3.50 per day will be made for guide and horse. Following are the authorized rates:

Rates for saddle and pack horse and guide service.

Saddle horse and equipment, per day.....	\$3.50
Pack horse and equipment, per day.....	3.50
Guide and horse per day for less than five in party.....	3.50
Saddle horse and equipment between Narada Falls and Paradise Valley, round trip.....	1.50
Saddle horse and equipment between Narada Falls and Paradise Valley, one way.....	1.00
Saddle horse and equipment for Sky Line Trail trip.....	3.50
Saddle horse and equipment for Tatoosh Trail trip to Plummer Peak.....	3.50

Saddle and pack horse service is operated between Narada Falls and Paradise Valley when snow conditions will not permit use of automobile highway between these points. A charge of 1 cent per pound in each direction is made for packing baggage between Narada Falls and Paradise Valley. Minimum charge for this packing service, 50 cents.

GUIDE SERVICE—SPECIAL TRIPS.

The three most popular trips in the National Park requiring guide service are: (1) Climb to the summit, (2) climb to Pinnacle Peak, (3) what is generally called the "side trip." This is from Paradise Valley to Stevens and Paradise Glaciers.

The summit climb requires from 15 to 20 hours for the round trip. Only those accustomed to climbing and in practice should attempt the journey. The Pinnacle Peak climb requires from six to eight hours for the round trip. The side trip to Stevens and Paradise Glaciers requires four or five hours for the round trip.

A corps of competent guides, both men and women, is employed by the Rainier National Park Co. Trail guides are stationed at Paradise Inn, in Paradise Valley. Horse guides are stationed at both Longmire Springs and Paradise Valley. The following rates will be charged for scheduled service; rates for special service will be made by the manager of the department.

Rates for guide service.

Minimum charge for summit climb, not more than five persons.....	\$50.00
More than five people, per person.....	10.00
Clothing and equipment for summit climb, per person.....	2.50
Guide service and special clothing for trip to Nisqually Glacier and Ice Caves, per person.....	2.50
Guide service and special clothing for trip to Stevens and Paradise Glaciers, snow sliding, etc., per person.....	2.50
Guide service and special clothing for Pinnacle Peak climb, minimum of three people, per person.....	4.00

INFORMATION, UTILITIES, ETC.

INFORMATION.

General information with respect to the park may be obtained by inquiry at the offices of the park superintendent at Longmire Springs and at the entrance to the park, or at the offices of the principal hotels; and a topographic map of the park may be secured at the principal hotels or from the park superintendent for 10 cents.

MEDICAL SERVICE.

A physician is subject to call by the National Park Service and can be summoned in cases of acute illness or serious injury by telephonic communication with the superintendent's office.

POST OFFICE.

The post office is Ashford, Wash.

TELEPHONE AND TELEGRAPH SERVICE.

Local and long-distance telephone service is available at all of the hotels and at other points in the park. Telegrams may be received or sent from the hotels. In addition to the regular telegraph charge, an extra charge is made for transmitting a message over the telephone line. All telephone lines in the park are owned and operated by the National Park Service. The charge for use of telephone from or to Ashford and any point in the park, or from point to point within the park, is 25 cents for not exceeding 3 minutes, and 10 cents for each additional minute.

EXPRESS.

Express shipments received at any of the hotels or camps will, upon payment of charges, be forwarded by the Rainier National Park Co., and likewise the company will receive and deliver express shipments for its patrons at reasonable rates approved by the National Park Service.

ROADS AND TRAILS.

There are two automobile roads in the park, descriptions of which will be found in the paragraphs immediately following.

Trails have been constructed with a view to making the wonders of nature within the park easily accessible as well as to provide patrol routes for the protection of the forests and game. During the season of 1915 the trail system encircling the mountain was completed, and it is now possible in about one week's time to make the entire circuit of the mountain, for which purpose experienced guides with saddle and pack animals may be obtained through the Rainier National Park Co.

The park trail system not only makes accessible the snouts of some 20 glaciers which radiate from the summit of Mount Rainier, but lead directly to the parks and points of interest known as Paradise Valley, Van Trump Park, Indian Henrys Hunting Ground, St. Andrews Park, Sunset Park, Crater Lake, Spray Park, Mist Park, Cataract Basin, Moraine Park, Mystic Lake, Grand Park, Natural Bridge, Berkeley Park, Glacier Basin, Summerland, Ohanapecosh Park, Cowlitz Park, Ohanapecosh River and its Hot Springs, Canyon Bridge, Reflection Lakes, Eagle Peak, Narada Falls, Comet Falls, etc.

THE SOUTHERN PORTION OF THE PARK.

The automobile road from Tacoma, Seattle, Olympia, and Puget Sound cities to the entrance gate in the southeastern portion of the park is described on page 13. The Government end of this road is 20 miles in length, leading from the entrance gate (elevation 2,003 feet) to Longmire Springs (6.6 miles, elevation 2,761 feet); thence to foot of Nisqually Glacier (5.4 miles, elevation 3,908 feet); thence to Narada Falls (4 miles, elevation 4,572 feet); thence to Paradise Inn in Paradise Valley (4 miles, elevation 5,557 feet). Snowshoeing parties find many delights during the winter months.

This road was opened for travel in 1910.

The upper 8 miles of the road above Nisqually Glacier was opened to automobiles for the first time in 1915. This portion of the road is operated on a schedule by which automobiles leave Nisqually Glacier ascending and Paradise Valley descending on each hour from 8 a. m. to 7 p. m., passing at Narada Falls on the half hour. During the seasons of 1915, 1916, 1917, and 1918, 22,000 automobiles and about 120,000 people passed over this section of road without a single accident.

This road, which has an average grade of only 4 per cent, affords one of the most wonderful automobile drives in the world.

Paradise Valley, Indian Henrys Hunting Ground, and Van Trump Park are the most easily reached and consequently the most frequented places of interest within the national park.

Regular automobile stage lines are operated to Paradise Valley over the Government road from Ashford and Longmire Springs; for rates, see page 20.

Indian Henrys Hunting Ground, 7 miles from Longmire Springs, is reached by trail only. This trip may be made afoot or ponies may be secured at Longmire Springs, where the most frequently used of the three trails leading to this resort begins. A tent camp is located in Indian Henrys Hunting Ground.

To reach Van Trump Park the same Indian Henrys Hunting Ground Trail is taken, branching off to the right after about 1 mile of travel. The trip to Van Trump Park should, however, be made by going up past Christine Falls and returning by the old trail to Longmire Springs. The distance from Van Trump Creek at the Government road to Van Trump Park by this trail is about 2½ miles. This park is reached by trail only, and the trip may be made afoot or on ponies. While this is one of the most beautiful of the mountain parks, and one of the most easily reached, yet there are no accommodations for travelers, and lunches should be taken and return trip made to Longmire Springs before nightfall.

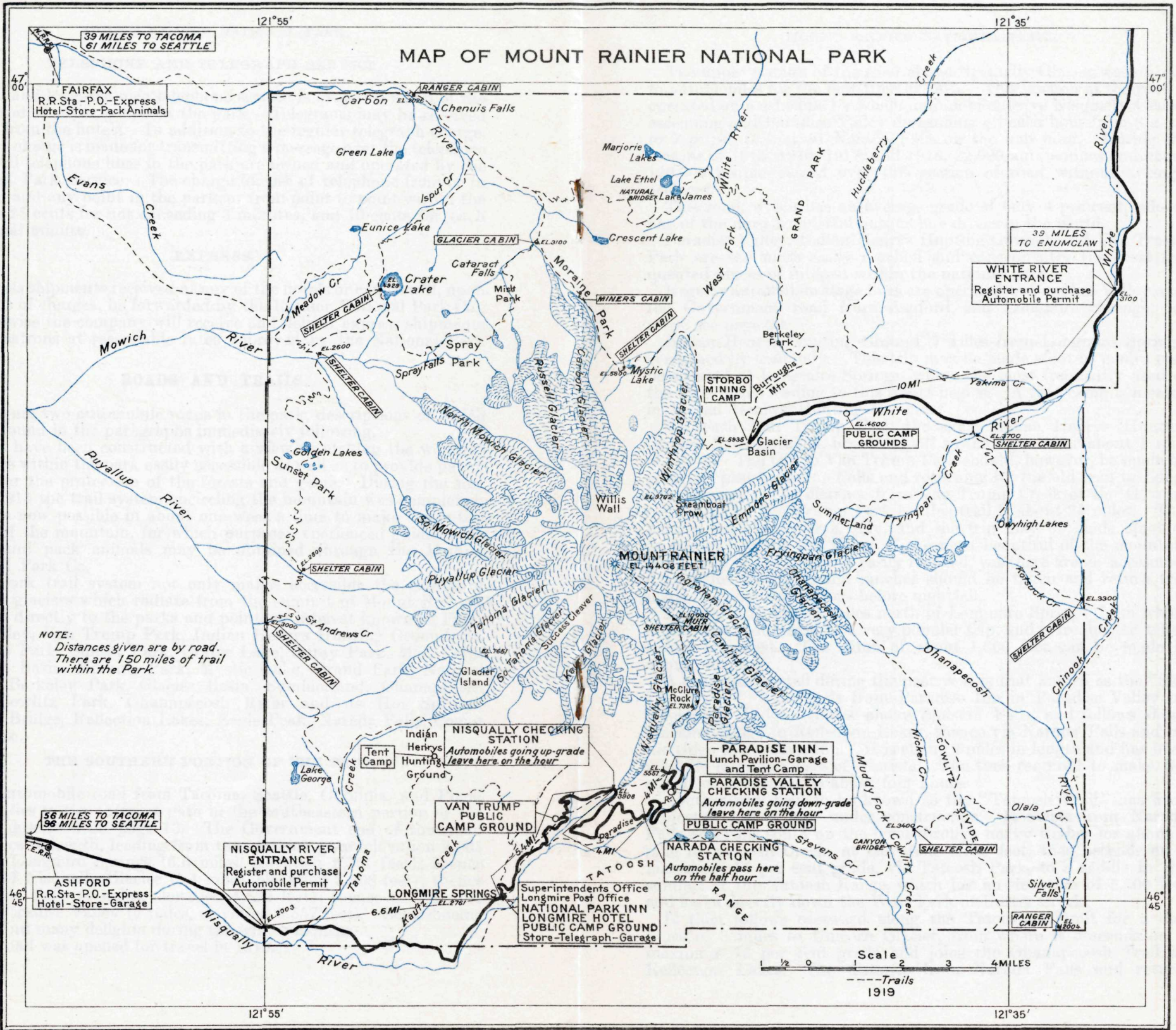
Ramparts Ridge, 1¼ miles north of Longmire Springs, from which a fine view is obtained, is a very popular trip, and is frequently taken before breakfast. The climb of about 1,300 feet can be made in about one hour.

A trail constructed during the past year is that known as the "Sky Line Trail." This leads from Paradise Inn in Paradise Valley up Timberline Ridge, crosses above Sluiskin Falls, and follows down Mazama Ridge to Reflection Lakes, thence via Narada Falls and up the ridge to Paradise Inn. It is about 8 miles in length and has been used by large numbers of tourists. The time required to make the circuit on horseback is about four hours.

Another new trail to be known as the "Tatoosh Trail" has been projected and is now under construction. It starts from Narada Falls and runs south on the level through heavy timber for about 1 mile to Tatoosh Creek, at elevation 4,400 feet, then ascends on a maximum 15 per cent grade, via Tatoosh Park, to a saddle in the summit of the Tatoosh Range, which has an elevation of 5,500 feet and looks directly down the West Fork of Butter Creek.

It then follows eastward along the Tatoosh summit for a distance of 3 miles to Unicorn Glacier, from where it descends on a maximum 15 per cent grade and joins the Ohanapecosh Trail at Reflection Lakes. The distance from Narada Falls and return

MAP OF MOUNT RAINIER NATIONAL PARK



39 MILES TO TACOMA
61 MILES TO SEATTLE

FAIRFAX
R.R. Sta - P.O. - Express
Hotel - Store - Pack Animals

39 MILES TO ENUMCLAW
WHITE RIVER ENTRANCE
Register and purchase
Automobile Permit

NOTE:
Distances given are by road.
There are 150 miles of trail
within the Park.

56 MILES TO TACOMA
98 MILES TO SEATTLE

ASHFORD
R.R. Sta - P.O. - Express
Hotel - Store - Garage

NISQUALLY RIVER ENTRANCE
Register and purchase
Automobile Permit

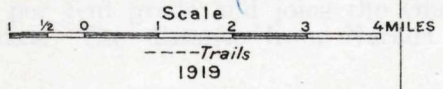
NISQUALLY CHECKING STATION
Automobiles going up-grade
leave here on the hour

VAN TRUMP PUBLIC CAMP GROUND

Superintendents Office
Longmire Post Office
NATIONAL PARK INN
LONGMIRE HOTEL
PUBLIC CAMP GROUND
Store - Telegraph - Garage

PARADISE VALLEY CHECKING STATION
Automobiles going down-grade
leave here on the hour

NARADA CHECKING STATION
Automobiles pass here
on the half hour



over this trail will be about 10 miles and will require about five hours' time to make the circuit on horseback.

The combined Sky Line and Tatoosh circuits can be made in one day of about eight hours' actual traveling time.

Eagle Peak (elevation 5,955 feet), $3\frac{1}{2}$ miles east from Longmire Springs, is also a popular trip. A good foot trail leads directly to the summit, which commands a magnificent view of the south side of Mount Rainier and the surrounding country. Parties making this trip usually take lunch along, and spend several hours at the summit.

The Ohanapecosh Valley, with its beautiful Silver Falls, is reached by trail only from Narada Falls. This is a trip filled with interest, but should be taken only by good riders or pedestrians who are accustomed to long, hard walks. A few rods distant, just outside the southeast corner of the national park, are the wonderful Ohanapecosh hot mineral springs. The Ohanapecosh Trail leaves the Government road at Narada Falls, leading past Reflection Lakes down the Stevens Canyon to the wonderful box canyon of the Muddy Fork of the Cowlitz River, thence climbing the Cowlitz River divide and down into the valley of the Ohanapecosh River. The distance from Longmire Springs is about 20 miles.

THE NORTHERN PORTION OF THE PARK.

Directions for reaching the northern portion of the park are given on page 17.

The Storbo Road from the White River Ranger Station on the northeast boundary of the park to Glacier Basin, 10 miles long, was constructed by the Mount Rainier Mining Co. under a permit from the department, for use in connection with their mining operations, and is now open to the public. It is a one-way road, 12 to 14 feet wide, with grades from $2\frac{1}{2}$ per cent to $13\frac{1}{2}$ per cent.

The recent trail improvement and new trail construction has opened many beauty spots and scenic wonderlands, making them easier of access to the public. The construction of telephone lines connecting with the long-distance or commercial lines gives the traveler the added advantage of this convenience as well as affording better protection and more efficient patrol throughout the entire district.

The ascent of Mount Rainier is made by parties starting either from Mystic Lake or Glacier Basin with a usual overnight camp either at Camp Curtis or Steamboat Prow, at an elevation of 9,500 feet. From this point upward the climb varies with the changing condition of the snow on the mountain side. With favorable weather, a guide familiar with local conditions, and ordinary endurance it is possible for a party to make the ascent by this route with no more than the usual discomforts experienced by mountain climbers in like altitudes elsewhere.

In all the vast upland region from Sunset Park to Summerland and extending from Columbia Crest to the northern boundary of the park there is but little choice in the scenery. This is an expanse whose reaches embrace myriad lakes of emerald and turquoise, natural parks of varied and fantastic beauty, dark wooded valleys in whose depths the hoarse roar of waterfalls is faintly heard, solitary peaks and rugged cliffs, and the overtowering majesty of the moun-

tain itself. With such a variety of natural beauty and splendor as here shown, words fail of description and the sense of observation palls, therefore it is only after many visits that the eye becomes accustomed to and the mind begins to comprehend it all.

HOW TO CLIMB MOUNT RAINIER.¹

The ascent of Mount Rainier is ordinarily made from Paradise Valley, by what is known as the Gibraltar route. This route, which is the one Gen. Hazard Stevens and P. B. Van Trump originally selected for their pioneer climb in 1870, has proven to be by far the safest and most convenient of all the routes by which the old volcano has been attacked. Besides, it is the only route readily available to the tourist public, as it starts on the south side of the mountain, which is the only side upon which permanent hotels and tourist camps are located. The country surrounding the other sides of the mountain is still in its virgin state of wildness, except for a few trails that traverse it, and is frequented only by parties of hardy mountaineers who carry their own camping outfits.

Generally speaking, Mount Rainier is not an easy peak to climb. The great altitude of its summit (14,408 feet above sea level) and the low level of the region about its base (between 2,000 and 5,000 feet) combine to make the ascent an exceedingly long and exhausting one. Dangerously crevassed ice covers a large proportion of the mountain's flanks, while the sharp ridges between the glaciers are composed of treacherous crumbling lava and pumice. Those who have set their ambition on making the ascent will do well, therefore, to realize at the outset that there is no choice of routes, and that should one lose the beaten trail there is little or no hope of extricating one's self by another way. Several lives have been lost on the mountain, in every case by parties venturing out without the aid of guides.

There are several reasons for securing the services of a competent guide. In the first place, the route does not consist of a definitely marked path. It leads for miles over snow fields on which footprints melt away from one day to the next. In the second place, it is necessary, in order that one may be able to return before dusk, to start out at 1 o'clock in the morning; and, as a consequence, a considerable distance must be traversed in the dark, before daybreak. No one unfamiliar with the ground should undertake to do this without a guide. Again, the rock climbing up the Cowlitz Cleaver and Gibraltar Rock is not altogether without hazard, and is not to be attempted unaided except by experienced mountaineers.

It is to be recognized, further, that most people do not know how to handle themselves on a long and difficult ascent, as mountain climbing is not with them a daily experience. They are apt to rush eagerly at the start, using up their strength before the really arduous part of the climb is reached. The guide is there not merely to show the way, but to tell the tourist how to climb, how fast to go, when to rest and to take nourishment, and to take care of him in case he is overcome with exhaustion or is taken with mountain sickness.

Finally, account must be taken of the exceeding fickleness of the weather conditions on the mountain. Only guides familiar with Rainier's many moods can presume to foretell whether the day will

¹ By F. E. Matthes, United States Geological Survey.

turn out favorable for a climb or not. What may look to the uninitiated like harmless, fleecy vapors on the summit may be the forerunners of a sudden snowstorm which no one could hope to live through. A majority of those who have perished on the mountain have been overcome by blizzardlike storms. Such storms may occur even in midsummer, and on the summit are always attended by fierce gales against which it is impossible to hold one's footing.

The Rainier National Park Co.'s hotel, in Paradise Valley, is the logical base from which to make the climb. It lies near the timber line, at an altitude of 5,400 feet. Accommodations may there be had by the day or week; guides may be secured, and through them such necessities as alpenstocks, amber glasses, calks, hobnails, and actor's paint to protect the face from sunburn, etc.

The first 4,500 feet of the climb lie for the most part, though not wholly over snow fields. These are crisp and hard before the sun touches them, but once softened make very heavy walking; hence another reason for starting before daybreak. By sunrise one arrives at Camp Muir (10,000 feet), a saddle at the base of a narrow rock spur known as the Cowlitz Cleaver. One may make a stop here, but there is little comfort to be expected, for the place is some 4,000 feet above the highest vegetation, and there is neither fuel nor water to be had. Rocks piled in low circular walls afford partial shelter from the keen winds.

The ascent of the Cowlitz Cleaver is quite taxing, being mostly over rough, angular lava blocks. By 8 o'clock, as a rule, the base of Gibraltar Rock is reached. A narrow ledge is followed along the face of the cliff, part of the way overhung by rock masses and huge icicles, and this ledge leads to the base of a narrow chute between the ice of the upper Nisqually Glacier and the body of Gibraltar. This chute offers the most serious difficulties in the ascent, and women should not attempt it with skirts. Bloomers are here a necessity. Ropes are usually suspended from the cliffs, whereby one may assist himself upward. It is wise to move one at a time, as there is ever danger of the persons above starting rock debris and ice fragments that may injure those below. The ascent and descent of the chute are therefore inevitably time-consuming. Ordinarily the saddle above Gibraltar (12,679 feet) is not reached until 10 o'clock.

From Gibraltar on there remains only a long snow slope to climb, but this snow slope is often exceedingly fatiguing. Huge, gaping crevasses develop in it which must be skillfully avoided by detours. Freshly fallen snow may be so deep that one plunges into it to the waist, or else the snow may have melted out into tapering spines and so-called honeycombs many feet high, among which one can not travel without considerable exertion.

The rim of the south crater is usually reached about 11 o'clock. It is always bare of snow, and shelter from the high gales may be found behind the great rock blocks on the crest. Metal cases are left here in which the tourist may inscribe the record of his ascent.

The crater is always filled with snow and may be traversed without risk; only one should be careful near the edges, as the snow there is melted out in caverns by the steam jets which rise from beneath it in many places. Those having the strength may go on to Columbia Crest, the snow dome that constitutes the highest summit of the

mountain. The return to Paradise Inn is easily made in from five to six hours.

In conclusion, it may be well to say a word of caution to the over-ambitious. The climb is such a long one and the altitude gained so high that none but those who have previously prepared themselves by preliminary shorter climbs can hope to accomplish the feat with anything like genuine enjoyment. Altogether too many people have attempted the ascent immediately upon arrival from the city, without having permitted their hearts and lungs to become accustomed to the rarified air of the higher altitudes, and without having toughened their muscles for the great task. As a consequence they have either come back exhausted to the verge of collapse or else they have altogether failed in the undertaking. And there is unfortunately more than one case on record of persons who have permanently injured their health by such ill-considered proceeding.

It is wise upon arrival to spend several days—the more the better—in climbing about at lesser altitudes. A favorite try-out is an ascent of Pinnacle Peak, on the Tatoosh Range. It affords useful lessons in every kind of climbing that one may be called upon to do in conquering the main peak.

Moderation in diet and the avoidance of heavy food of any sort are precautions that can not be too urgently recommended. One should bear in mind that he is preparing for the most heroic kind of athletic work, and that such work is impossible on the conventional diet followed by most people.

Before starting on the ascent of Mount Rainier, do not eat such articles as fried eggs, fried potatoes, hot cakes, or heavy pastry.

Abstain from coffee and tobacco, if possible. Spirituous liquor of any kind is taboo, except as a stimulant in case of collapse. Beef tea, lean meat, all dry breakfast foods, cocoa, sweet chocolate, crackers, hardtack, dry bread, rice, raisins, prunes, dates, and tomatoes are in order. The simpler the diet, on the whole, the more beneficial it is likely to be. Never eat much at a sitting during the ascent, but eat often and little at a time. These are rules well known to mountaineers. The more faithfully one complies with them the higher one's efficiency will be and the keener the enjoyment of the trip.

CAUTION.

All persons starting on dangerous trips to the mountains or glaciers, unaccompanied by a registered guide, should register with the ranger in charge of the nearest station and give him details of proposed journey and name and address of the person to notify in case of serious accident.

TABLES OF DISTANCES.

South Side Road, park entrance to Paradise Valley—20 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Park entrance.	Paradise Valley.		
	<i>Miles.</i>	<i>Miles.</i>	<i>Feet.</i>	
Hansens Camp.....	0.9	19.1	2,105	Fine water.
Tahoma Fork.....	1.2	18.8	2,120	60-foot cedar-log bridge. Beginning of West Side Trail.
Rock Point.....	2.6	17.4	2,270	Heavy rock cut.
Kautz Creek.....	3.4	16.6	2,378	Glacial stream from Kautz Glacier.
Bear Prairie Point.....	4.8	15.2	2,500	Magnificent view of mountain.
Longmire Springs.....	6.6	13.4	2,750	Superintendent's headquarters.
Indian Henry Trail.....	7.0	13.0	2,850	Trail to Indian Henrys.
Cougar Rock.....	8.0	12.0	3,000	High rock, base of Rampart Ridge.
Mouth of Paradise River.....	8.6	11.4	3,175	Fine view of pony bridge.
Van Trump Camp.....	9.5	10.5	3,410	Public camp ground near mouth of Van Trump Creek.
Hair Pin Curve.....	10.6	9.4	3,650	Upper curve on switchbacks.
Christine Falls.....	10.9	9.1	3,667	Beautiful falls.
Nahunta Creek and Falls.....	11.5	8.5	3,800	Small stream from Cushman Crest.
Nisqually Glacier.....	11.9	8.1	3,908	Checking station.
Ricksecker Point.....	13.4	6.6	4,212	Fine view of mountain and surrounding country.
Silver Forest.....	15.0	5.0	.....	Gray tree trunks, the bark of which has fallen off.
Narada Falls.....	16.0	4.0	4,572	Checking station.
Inspiration Point.....	17.3	2.7	4,900	Magnificent view.
Paradise Valley.....	20.0	.....	5,400	Checking station.
Public camp grounds.....	20.4	0.4	5,400	

Paradise Trail from Longmire to Paradise Valley—6 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Park entrance.	Paradise Valley.		
	<i>Miles.</i>	<i>Miles.</i>	<i>Feet.</i>	
Forks of trail.....	1.4	4.6	3,100	Left-hand fork leads to Paradise Valley via Nisqually Glacier.
Mouth of Paradise River.....	1.7	4.3	3,150	Pony bridge over Nisqually River.
Carter Falls.....	2.7	3.3	3,500	On Paradise River.
Madcap Falls.....	2.9	3.1	3,600	Do.
Narada Falls.....	4.3	1.7	4,572	Principal falls on Paradise River with sheer drop of 150 feet.
Paradise Inn and Camp.....	6.0	0.0	5,400	New hotel and camp. Base of start for climb to top of mountain.

Indian Henry Trail,¹ Longmire Springs to Indian Henrys Hunting Ground—7 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Longmire Springs.	Indian Henrys.		
	<i>Miles.</i>	<i>Miles.</i>	<i>Feet.</i>	
Ramparts Ridge.....	1.9	4.7	3,800	Right-hand trail leads to Van Trump Park.
Kautz Creek.....	2.8	3.7	3,700	Fast flowing stream from Kautz Glacier.
Fishers Hornpipe Creek.....	4.0	2.5	4,300	Small clear stream.
Devils Dream Creek.....	4.7	1.8	4,500	Do.
Squaw Lake.....	5.5	1.0	5,000	Small clear lake.
Ranger Station.....	6.5	0.0	5,300	Good cabin; telephone; all points of interest are in close proximity to station.

¹ There are three trails leading from the Government road to Indian Henrys Hunting Ground. The most generally used trail leaves the Government road near Longmire Springs, and is the one on which this table of distances is based. The original entrance to Indian Henrys Hunting Ground was by way of a trail recently made accessible to tourists, branching from the Government road 1 mile east of the park entrance, following up Tahoma Creek to the foot of South Tahoma Glacier, from where one of the most imposing scenes in the park may be witnessed. This point is about 6 miles from the Government road and the camp in Indian Henrys Hunting Ground is about 1 mile farther distant on this trail. Another trail, *not recommended for tourist travel*, leaves the Government road at the crossing of Kautz Creek and follows this stream to its junction with the trail leading from Longmire Springs.

Rampart Ridge-Van Trump Park Trail, Longmire Springs to Van Trump Park—5.5 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Longmire Springs.	Van Trump Park.		
	<i>Miles.</i>	<i>Miles.</i>	<i>Feet.</i>	
The Ramparts.....	1.2	4.3	4,080	Low ridge north of Nisqually River from which a fine view may be obtained.
Forks of trail.....	2.2	3.3	3,900	Left-hand fork leads to Indian Henrys.
Van Trump Park.....	5.5	0.0	5,500	Beautiful mountain park.

Eagle Peak Trail, Longmire Springs to Eagle Peak (foot trail only)—3.5 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Longmire Springs.	Eagle Peak.		
	<i>Miles.</i>	<i>Miles.</i>	<i>Feet.</i>	
Nisqually River.....	0.25	3.25	2,800	Suspension pony bridge; fine view of river and mountain.
Eagle Peak.....	3.5	0.0	5,955	At west end of Tatoosh Range; magnificent view of mountain and surrounding country.

Glacier Trail from Junction with Paradise Trail, 1.4 miles above Longmire Springs to Paradise Valley—5.6 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Longmire Springs.	Paradise Valley.		
	<i>Miles.</i>	<i>Miles.</i>	<i>Feet.</i>	
Forks of trail.....	1.4	5.2	3,100	Right-hand fork leads to Paradise Valley via Narada Falls.
First crossing of Government road.....	1.5	4.1	3,100	
Van Trump Camp.....	2.5	3.1	3,410	Public camp grounds, running water.
Van Trump Creek.....	2.7	2.9	3,450	Clear stream.
Forks of trail.....	3.1	2.5	3,550	Left-hand fork leads to Van Trump Park.
Nisqually Bridge.....	4.0	1.6	3,908	$\frac{1}{2}$ mile below snout of glacier.
Paradise Inn and Camp.....	5.6	0.0	5,400	New hotel and camp in Paradise Valley.

Van Trump Creek Trail from junction with Glacier Trail to Van Trump Park—2.5 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Longmire Springs.	Van Trump Park.		
	<i>Miles.</i>	<i>Miles.</i>	<i>Feet.</i>	
Junction of trails.....	3.1	2.5	3,550	
Christine Falls.....	3.4	2.2	3,667	Beautiful falls on Van Trump Creek.
Power plant.....	3.5	2.1	3,715	R. N. P. Co.'s plant; generates 250 volts under head of 420 feet.
Van Trump Canyon.....	4.5	1.1	4,500	Small canyon on Van Trump Creek.
Comet Falls.....	4.9	0.7	5,200	Beautiful falls with 200-foot drop.
Van Trump Park.....	5.6	0.0	5,500	Beautiful mountain park.

Ohanapecoh Trail from Narada Falls to ranger station—15 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Narada Falls.	Ohanapecoh Ranger Station.		
	Miles.	Miles.	Feet.	
Narada Falls.....	0.0	15.0	4,572	Checking station; telephone.
Reflection Lakes.....	1.5	13.5	4,861	Beautiful clear lakes.
Louise Lake.....	2.5	12.5	4,592	Beautiful clear lake; stocked with fish in 1917.
Stevens Canyon.....	3.5	12.0	.....	.....
Martha Falls.....	4.0	11.5	3,110	Beautiful falls in Martha Creek.
Stevens Creek Crossing.....	6.5	8.5	2,730	.....
Muddy Fork Box Canyon.....	7.5	7.5	3,042	One of the most beautiful river canyons in America, across which a horse and foot bridge has been built 40 feet long and 200 feet above the water.
Nickel Creek.....	8.5	6.5	3,300	Tributary of Muddy Fork, with many falls; Shelter cabin; telephone.
Cowlitz Divide.....	10.0	5.0	4,770	Junction of Cowlitz Divide Trail.
Olala Creek.....	11.5	3.5	3,950	Small clear stream.
Forks of trail.....	12.5	2.5	3,350	1.3 miles by left-hand fork to East Side Trail near mouth of Cougar Creek.
Ohanapecoh River.....	14.5	0.5	1,930	Clear stream with many falls and cascades.
Ohanapecoh Ranger Station.....	15.0	0.0	2,004	Good cabin; telephone.
Ohanapecoh Hot Springs.....	.....	.....	.....	Noted for curative powers.

East Side Trail, Ohanapecoh Ranger Station to Storbo Road—17½ miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Ohanapecoh Ranger Station.	Storbo Road.		
	Miles.	Miles.	Feet.	
Laughing Water Creek.....	0.6	16.6	2,000	Clear stream.
Silver Falls.....	0.95	16.25	2,050	On Ohanapecoh River.
Park boundary.....	1.9	15.3	2,300	.....
Cedar Flat.....	2.0	15.2	2,300	Many large cedars.
Park boundary.....	2.9	14.3	2,300	.....
County boundary.....	3.6	13.6	2,350	Between Pierce and Lewis Counties.
Cougar Creek.....	3.8	13.4	2,325	Clear stream in heavy timber.
Olala Creek Cut-Off Trail.....	4.0	13.2	2,350	Short cut to Olala Creek.
Whittier Creek.....	5.4	11.8	2,700	Clear stream.
Stafford Falls.....	6.5	10.7	2,775	On Ohanapecoh River.
Park boundary.....	6.65	10.35	2,800	.....
Fork of Chinook River.....	7.8	9.4	3,124	Heavily timbered basin.
Boundary Creek.....	8.5	8.7	3,275	Shelter cabin; telephone.
Park boundary.....	8.6	8.6	3,300	.....
Sydney Falls.....	9.1	8.1	3,600	Beautiful falls on Kotsock Creek.
Horseshoe Falls.....	11.5	5.7	5,000	Do.
Goats Pass.....	12.2	5.0	5,300	.....
Owyhigh Lakes.....	12.6	4.6	5,150	Beautiful lakes amid rugged peaks.
Fryingpan Cabin.....	16.7	0.5	3,700	Shelter; telephone.
Fryingpan River.....	16.85	0.35	3,700	.....
Summerland Trail.....	17.0	0.2	3,700	6 miles to Summerland.
Storbo Road.....	17.2	0.0	3,725	5 miles above White River Ranger Station.

Cowlitz Divide-Summerland Trail from summit of Cowlitz Divide to Storbo Road—15 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Cowlitz Divide.	Storbo Road.		
	Miles.	Miles.	Feet.	
Cowlitz Divide.....	0.0	15.0	4,770	At Ohanapecoh Trail.
Indian Bar.....	5.0	10.0	3,150	Beautiful basin above Wauhaukaupauken Falls.
Ohanapecoh Park.....	6.0	9.0	5,500	Beautiful region; many waterfalls and rugged peaks.
Fryingpan Glacier.....	7.5	7.5	6,750	.....
Summerland.....	9.0	6.0	5,900	Beautiful park; many flowers amid rugged surroundings.
Storbo Road.....	15.0	0.0	3,725	5 miles above White River Ranger Station.

West Side Trail, Tahoma Fork Bridge to Carbon River Ranger Station—39 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Tahoma Fork Bridge.	Carbon River Ranger Station.		
	Miles.	Miles.	Feet.	
Tahoma Fork Bridge.....	0.0	39.0	2,120	60-foot cedar log bridge.
Mount Wow.....	4.0	35.0	6,030	Fine view of mountain and surrounding country.
Fish Creek.....	3.2	35.8	2,950	2½ miles to Tahoma Glacier, 4 miles to Indian Henrys. Clear stream, good fishing.
Indian Henry Trail.....	4.1	34.9	3,100	.....
Round Pass.....	5.6	33.4	4,000	Timbered saddle, west end of Emerald Ridge.
South Fork Puyallup River.....	6.5	32.5	3,400	Box canyon, swift glacier stream.
Soda Springs.....	8.8	30.2	3,100	Shelter cabin; telephone.
Ethania Falls.....	9.3	29.7	3,400	Beautiful falls on St. Andrews Creek
Larrupin Falls.....	9.8	29.2	3,550	Do.
Denman Falls.....	10.6	28.4	3,800	Do.
Snake Trail to St. Andrews Park.....	10.8	28.2	3,900	About 2 miles to St. Andrews Park.
Moore's Point.....	12.1	26.9	4,300	West end of Klapache Ridge.
North Fork Puyallup River.....	15.0	24.0	2,800	Shelter cabin; telephone.
Sunset Park.....	20.4	18.6	5,500	Beautiful upland park.
Golden Lakes.....	21.2	17.8	5,000	Numerous beautiful, clear lakes; stocked with fish in 1917; good camping.
South Fork Mowich River.....	27.0	12.0	2,650	Good fishing.
North Fork Mowich River.....	27.5	11.5	2,650	Shelter cabin; telephone.
Forks of trail.....	28.0	11.0	3,000	Right-hand trail to Crater Lake. Left-hand trail to Mountain Meadow.
Crater Lake.....	31.0	7.9	4,929	Beautiful clear lake; good camping; side trips; shelter cabin; telephone.
Ipsut Pass.....	33.6	5.4	5,000	Pass between Ipsut Creek and Meadow Creek.
Carbon River Ranger Station.....	39.0	0.0	2,026	Good cabin; telephone.

Grindstone Trail from Fairfax to Crater Lake—20 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Fairfax.	Crater Lake.		
	Miles.	Miles.	Feet.	
Fairfax.....	0.0	.....	.....	On Northern Pacific Ry.; hotel, store, post office, etc.
Grindstone.....	10.0	10.0	3,300	In national forest.
Park boundary.....	12.5	7.5	3,500	Spring water.
Forks of trail.....	13.0	7.0	3,500	3 miles by right-hand fork to West Side Trail; ½ mile north of Mowich River.
Mountain Meadows.....	14.0	6.0	4,000	Good camping; horse feed.
Crater Lake.....	20.0	0.0	4,929	Beautiful clear lake; good camping; side trips; log cabin; telephone.

Crater Lake-Spray Park Trail from Crater Lake to Glacier Cabin—10 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Crater Lake.	Glacier Cabin.		
	Miles.	Miles.	Feet.	
Lee Creek.....	1.5	8.5	4,700	Clear stream.
Eagle Cliffs.....	3.0	7.0	4,900	Fine view of Mount Rainier.
Spray Falls.....	3.5	6.5	5,300	Highest and most beautiful fall on North Side.
Spray Park.....	4.0	6.0	5,500-6,000	Most beautiful park on North Side.
Mist Park.....	6.0	4.0	5,500	Beautiful park at head of Cataract Creek.
Cataract Camp.....	9.8	0.2	3,200	Good camping place; fine water; telephone.
Glacier Cabin.....	10.0	0.0	3,175	Old cabin; no good water for camping.

Carbon River Trail from Fairfax to Glacier Basin—29 miles.

Name.	Distance from—		Elevation above sea level.	Remarks.
	Fairfax.	Glacier Basin.		
	Miles.	Miles.	Feet.	
West boundary.....	6.5	22.5	1,716	Fairly good trail.
Carbon Ranger Station.....	10.0	19.0	2,025	Good cabin, water, and telephone.
Chenuis Creek and Falls.....	10.5	18.5	2,100	Fishing; stocked above falls in 1915.
Forks of trail.....	11.5	17.5	2,350	Right-hand fork to Crater Lake.
Do.....	14.0	15.0	2,883	Left-hand fork to Chenuis Mountain, Natural Bridge, and Grand Park.
Spukwush Creek.....	14.5	14.5	2,900	Good fishing.
Forks of trail.....	16.0	13.0	3,100	Right-hand trail to Spray Park.
Carbon Glacier.....	16.5	12.5	3,355	Lowest perpetual ice field in the United States.
Miner's cabin.....	18.2	10.8	5,100	Old cabin on Moraine Creek.
Moraine Park.....	20.0	9.0	5,700	Good camping, grass, and water.
Mystic Lake.....	22.0	7.0	5,750	Clear, beautiful lake; shelter cabin; magnificent views may be obtained from this locality.
Snout of Winthrop Glacier.....	24.0	5.0	4,872	Source of West Fork of White River.
Granite Creek Basin.....	26.0	3.0	6,270	
Burroughs Mountain.....	27.0	2.0	7,050	Magnificent views.
Glacier Basin.....	29.0	0.0	5,935	Mount Rainier Mining Co.'s headquarters; telephone; buildings; upper end of Storbo Road.

Grand Park Trail from Carbon River to Glacier Basin—25 miles.

(Branches from Carbon River Trail 4 miles above Carbon River Ranger Station.)

Name.	Distance from—		Elevation above sea level.	Remarks.
	Carbon River Ranger Station.	Glacier Basin.		
	Miles.	Miles.	Feet.	
Ranger station.....	0.0	25.0	2,026	Cabin; telephone.
Forks of trail.....	4.0	21.0	2,883	Right fork to Carbon Glacier.
Chenuis Mountain.....	7.5	13.5	6,100	Beautiful park region, with high cliffs, lakes, snow fields, and high rocky peaks; mountain goats; good horse feed.
Natural Bridge.....	10.0	15.0	5,400	At end of branch trail; one of the natural wonders of the park.
Mosquito Flat; Van Horn Creek Falls.....	11.0	14.0	4,400	Scenic region; good camping and horse feed; fishing below the falls.
West Fork White River.....	13.0	12.0	3,240	Swift glacial stream from Winthrop Glacier; no bridge.
Grand Park.....	17.0	8.0	5,700	Most extensive mountain park on North Side; wild game; unobstructed view of Mount Rainier.
Berkeley Park.....	20.0	5.0	6,000	Beautiful park basin; mountain flora abounds here in great profusion.
Frozen Lake.....	21.0	4.0	6,750	Barren region.
Burroughs Mountain.....	22.5	2.5	7,400	Magnificent views of Mount Rainier and surrounding country.
Glacier Basin.....	25.0	0.0	5,935	Mount Rainier Mining Co.'s headquarters; telephone; upper end of Storbo Road.

Storbo Road from White River entrance to Glacier Basin—10 miles.

(White River entrance is 39 miles from Enumclaw.)

Name.	Distance from—		Elevation above sea level.	Remarks.
	Park entrance.	Glacier Basin.		
	Miles.	Miles.	Feet.	
White River entrance.....	0.0	10.0	3,050	Entrance gate; ranger cabin; office building, telephone, etc.
Klickitat Trail.....	2.7	7.3	3,425	Trail to Cayuse Pass.
Yakima Park Trail.....	2.9	7.1	3,450	Trail to Yakima Park.
Miss Strong's camp.....	3.6	6.4	3,550	Used as base camp in 1917.
East Side Trail.....	5.2	4.8	3,900	To Ohanapeosh and Summerland.
Public camp grounds.....	6.7	3.3	4,300	Fine view of mountain; good water.
Snout of Emmons Glacier.....	7.5	2.5	4,719	Source of White River.
Glacier Basin.....	10.0	0.0	5,935	End of road; Mount Rainier Mining Co.'s headquarters; telephone.

Principal points of interest reached from Paradise Inn.

[Best reached on foot.]

Name.	Distance and direction from Paradise Inn.	Elevation above sea level.	Remarks.
	Miles.	Feet.	
Nisqually Glacier.....	1½ W.....	5,500	Largest glacier on south side of Mount Rainier.
Van Trump Glacier.....	2½ NW.....	6,500	Small glacier west of Nisqually Glacier.
Kautz Glacier.....	3 W.....	4,800	On this glacier and on the Nisqually and Van Trump Glaciers are to be seen bands of mountain goat.
Kautz Box Canyon.....	3½ SW.....	4,500	Narrow basalt canyon 800 feet deep at snout of Kautz Glacier.
Reflection Lakes.....	2 SW.....	4,861	Beautiful clear lakes on bench north of Pinnacle Peak, Tatoosh Range.
Bench Lake.....	2½ SE.....	4,500	On lower bench overlooking Stevens Canyon.
Pinnacle Peak.....	3 SE.....	6,562	Sharp peak on Tatoosh Range. Easy trip from Paradise Park.
Stevens Peak.....	4 SE.....	6,511	At east end of Tatoosh Range.
Unicorn Peak.....	4½ SE.....	6,939	Highest peak on Tatoosh Range. Pinnacle, Stevens, and Unicorn Peaks are easy to climb and a fine view of the surrounding country may be had from either and all of them.
Stuiskin Falls.....	1½ NE.....	5,900	First fall of Paradise River below Paradise Glacier, 300 feet high.
Paradise Glacier.....	1½ NE.....	6,500	Clear ice glacier. Source of Paradise River on east side of Paradise Park.
Stevens Glacier.....	1½ NE.....	6,000	East lobe of Paradise Glacier draining into Stevens Canyon.
Stevens Ice Cascades.....	2 NE.....		Crevasse slope on Stevens Glacier.
Stevens Water Cascades.....	2½ NE.....		At foot of Stevens Glacier.
Stevens Canyon.....	2½ NE.....		Below Stevens Glacier. Four miles long, ½ mile wide, 1,000 to 2,000 feet deep.
Fairy Falls.....	2½ NE.....	5,500	Beautiful falls 700 feet high at head of Stevens Canyon.
Cowlitz Glacier.....	3 NE.....	4,500	Largest glacier on southeast side of the mountain.
Cowlitz Rocks.....	2½ NE.....	7,457	Ridge dividing Paradise Glacier from Cowlitz Glacier.
Granite Falls.....	3½ NE.....		Large volume of water with sheer drop of 350 feet.
Cathedral Rocks.....	3½ NE.....	8,262	Lofty spires on divide west of Ohanapeosh Glacier.
Cowlitz Chimneys.....	8 NE.....	7,607	Large chimneylike peaks on divide between Cowlitz River and White River.
McClure Rock.....	2 N.....	7,384	Flat rocky platform overlooking Paradise Glacier.
Anvil Rock Fire Lookout Station.....	3½ N.....	9,584	Sharp crest halfway between McClure Rock and Camp Muir. The trail leads over snow fields.
Camp Muir shelter hut.....	3½ N.....	10,000	Saddle at foot of Cowlitz Glacier, up which the trail to the summit of the mountain leads. To this point the ascent is easy. Mostly over snow fields.
Beehive.....	4½ N.....	11,033	Pinnacle on Cowlitz Glacier. Its shape resembles a beehive.
Camp Misery.....	4½ N.....	11,033	At base of beehive.
Eagle Nest Camp.....	4½ N.....		On Cowlitz Glacier.
Camp of the Stars.....	4½ N.....		At the foot of Gibraltar.
Gibraltar Rock.....	4½ N.....	12,679	Large rock mass at head of Cowlitz Glacier, along west edge of which the ascent is made, often with the aid of ropes. This rock divides the feeders of three glaciers—Nisqually on the west, Cowlitz on the south, and Emmons on the east.
Register Rock.....	6½ N.....	14,161	First point reached on rim of east crater.
Columbia Crest.....	7 N.....	14,408	Huge snowdrift on northwest side of east crater. Highest summit of Mount Rainier.
Point Success.....	7½ N.....	14,150	Most southern summit. About 250 feet lower than Columbia Crest.
Liberty Cap.....	7¾ N.....	14,112	High summit near the north end of mountain.
East Crater.....	6½ N.....	14,100	Main crater on east side of Columbia Crest about 1,400 feet in diameter.

Principal points of interest reached from Indian Henrys Hunting Ground.

[Best reached on foot.]

Name.	Distance and direction from Indian Henrys Hunting Ground.	Elevation above sea level.	Remarks.
	<i>Miles.</i>	<i>Fcet.</i>	
Mount Ararat.....	1 SW.....	5,996	High hill where Indian Henrys tillacums watched for game; fossils found on north slope.
Iron Mountain.....	1 E.....	6,200	Small twin mountains from which fine views may be obtained; crystal ledges in Crystal Mountain.
Crystal Mountain.....	1 NE.....	6,306	
Pyramid Peak.....	2 NE.....	6,937	
South Tahoma Glacier....	1.5 N.....	4,500	Largest glacier on southwest side of Mount Rainier.
Glacier Island.....	3 NE.....	7,651	Large rock mass separating North and South Tahoma Glaciers.
Mirror Lake.....	0.8 N.....	5,400	Small clear lake giving beautiful reflection of Mount Rainier.
Satulick Point.....	1.5 S.....	5,574	Fine view of Mount Adams, St. Helens, and Mount Hood.
Success Cleaver.....	5 NE.....	10,000	This is on route formerly used for the summit climb.
Emerald Ridge.....	2.5 N.....	5,935	Beautiful green ridge, home of the mountain goat.

RULES AND REGULATIONS.

GENERAL REGULATIONS.

(In effect April 15, 1918.)

The following rules and regulations for the government of the Mount Rainier National Park are hereby established and made public, pursuant to authority conferred by the acts of Congress approved March 2, 1899 (30 Stat., 993), May 27, 1908 (35 Stat., 365), and June 30, 1916 (39 Stat., 243):

1. *Preservation of natural features.*—The destruction, injury, or defacement in any way of the public property or the trees, vegetation, rocks, minerals, animal and bird or other life, or other natural conditions and curiosities in the park is prohibited.

2. *Camping.*—No camp will be made along roads except at designated localities. Blankets, clothing, hammocks, or any other article likely to frighten teams must not be hung near the road.

Many successive parties camp on the same sites during the season; therefore camp grounds must be thoroughly cleaned before they are abandoned. Tin cans, bottles, cast-off clothing, and all other debris must be placed in garbage cans or pits provided for the purpose. When camps are made in unfrequented localities where pits or cans may not be provided, all refuse must be burned or hidden where it will not be offensive to the eye.

Campers may use dead or fallen timber only for fuel.

3. *Fires.*—Fires constitute one of the greatest perils to the park; they must not be kindled near trees, dead wood, moss, dry leaves, forest mold, or other vegetable refuse, but in some open space on rocks or earth. Should camp be made in a locality where no such open space exists or is provided, the dead wood, moss, dry leaves, etc., must be scraped away to the rock or earth over an area considerably larger than that required for the fire.

Fires no longer needed must be completely extinguished, and all embers and bed smothered with earth or water, so that there remains no possibility of reignition.

Especial care must be taken that no lighted match, cigar, or cigarette is dropped in any grass, twigs, leaves, or tree mold.

4. *Hunting.*—The park is a sanctuary for wild life of every sort and no one may frighten, hunt or kill, wound or capture any bird or wild animal in the park, except dangerous animals when it is necessary to prevent them from destroying life or inflicting injury.

The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing birds or wild animals, or in possession of game killed on the park lands under circumstances other than prescribed above, must be taken up by the superintendent and held subject to the order of the Director of the National Park Service, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation, and the actual owner was not a party to such violation. Firearms will be permitted in the park only on written permission of the superintendent. Visitors entering or traveling through the park to places beyond must, at entrance, report and surrender all firearms, traps, nets, seines, or explosives in their possession to the first park officer, and, in proper cases, may obtain his written leave to carry them through the park sealed.

5. *Fishing.*—Fishing is permitted with hook and line only, and never for profit or merchandise. Fishing in particular water may be suspended; or the number of fish that may be taken by one person in any one day from the various streams or lakes may be regulated by the superintendent. All fish hooked less than 8 inches long shall be carefully handled with moist hands and returned at once to the water if not seriously injured. Fish retained should be killed. Twenty fish shall constitute the limit for a day's catch.

6. *Private operations.*—No person will be permitted to reside permanently, engage in any business, operate a moving-picture camera, or erect buildings upon the Government lands in the park without permission in writing from the Director of the National Park Service, Washington, D. C. Applications for such permission may be addressed to the director or to the superintendent of the park.

7. *Saloons, gambling, etc.*—No drinking saloon or barroom will be permitted in the park. Gambling in every form, or the operation of gambling devices, whether for merchandise or otherwise, is prohibited.

8. *Advertisements.*—Private notices or advertisements shall not be posted or displayed within the park, excepting such as the park superintendent deems necessary for the convenience and guidance of the public.

9. *Mining claims.*—The location of mining claims is prohibited on Government lands in the park.

10. *Patented lands.*—Owners of patented lands within the park limits are entitled to the full use and enjoyment thereof; the boundaries of such lands, however, must be determined, and marked and defined, so that they may be readily distinguished from the park lands. While no limitations or conditions are imposed upon the use of private lands so long as such use does not interfere with or injure the park, private owners must provide against trespass by their live stock upon the park lands, and all trespasses committed will be punished to the full extent of the law. Stock may be taken over the park lands to patented private lands with the written permission and

under the supervision of the superintendent, but such permission and supervision are not required when access to such private lands is had wholly over roads or lands not owned or controlled by the United States.

11. *Grazing*.—The running at large, herding, or grazing of live stock of any kind on the Government lands in the park, as well as the driving of live stock over same, must be avoided, except where authority therefor has been granted by the superintendent. Live stock found improperly on the park lands may be impounded and held until claimed by the owner and the trespass adjusted.

12. *Concessioners*.—All persons, firms, or corporations holding concessions in the park must keep the grounds used by them properly policed and maintain the premises in a sanitary condition to the satisfaction of the superintendent. No concessioner shall retain in his employment a person whose presence in the park may be deemed by the superintendent subversive of good order and management of the park.

All concessioners will require each of their employees to wear a metal badge with a number thereon, or other mark of identification, the name and the number corresponding therewith or the identification mark being registered in the superintendent's office. These badges must be worn in plain sight on the hat or cap.

13. *Dogs and cats*.—Cats are not permitted on the Government lands in the park, and dogs only to those persons passing through the park to the territory beyond, in which instances they must be kept tied while crossing the park.

14. *Dead animals*.—All domestic or grazed animals that may die on the Government lands in the park at any tourist camp, or along any of the public thoroughfares, must be buried immediately by the owner or person having charge of such animals, at least 2 feet beneath the ground, and in no case less than one-fourth mile from any camp or thoroughfare.

15. *Travel on trails*.—Pedestrians on trails, when saddle or pack animals are passing them, must remain quiet until animals have passed.

Persons traveling on the trails of the park either on foot or on saddle animals, must not make short cuts, but must confine themselves to the main trails.

16. *Travel—General*.—(a) Saddle horses, pack trains, and horse-drawn vehicles have right of way over motor-propelled vehicles at all times.

(b) On side-hill grades throughout the park motor-driven vehicles must take the outer side of the road when meeting or passing vehicles of any kind drawn by animals; likewise, freight, baggage, and heavy camping outfits must take the outer side of the road on side-hill grades when meeting or passing passenger vehicles drawn by animals.

(c) Wagons used in hauling heavy freight over the park roads must have tires not less than 4 inches in width.

(d) All vehicles must be equipped with lights for night travel. At least one light must be carried on the left front side of horse-drawn vehicles in a position such as to be visible from both front and rear.

17. *Miscellaneous*.—(a) Campers and others must not wash clothing or cooking utensils in the waters of the park, or in any way pollute them; or bathe in any of the streams near the regularly traveled thoroughfares in the park without suitable bathing clothes.

(b) Stock must not be tied so as to permit their entering any of the streams of the park. All animals should be kept a sufficient distance from camping grounds not to litter the ground and make unfit for use the area which may be used later as tent sites.

(c) Campers and all others, save those holding licenses from the Director of the National Park Service, are prohibited from hiring their horses, trappings, or vehicles to tourists or visitors in the park. No pack trains will be allowed in the park unless in charge of a duly registered guide.

(d) All complaints by tourists and others as to service, etc., rendered in the park should be made to the superintendent, in writing, before the complainant leaves the park. Oral complaints will be heard daily during office hours.

18. *Fines and penalties*.—Persons who render themselves obnoxious by disorderly conduct or bad behavior will be subjected to the punishment hereinafter prescribed for violation of the foregoing regulations, or they may be summarily removed from the park by the superintendent and not allowed to return without permission in writing from the Director of the National Park Service or the superintendent of the park.

Any person who violates any of the foregoing regulations shall be deemed guilty of a misdemeanor, and shall be subject to a fine of not more than \$500 or imprisonment not exceeding six months, or both, and be adjudged to pay all costs of the proceedings.

AUTOMOBILE AND MOTORCYCLE REGULATIONS.

Pursuant to authority conferred by the acts of Congress approved March 2, 1899 (30 Stat., 993), and June 30, 1916 (39 Stat., 243), the following regulations governing the admission of automobiles and motorcycles into the Mount Rainier National Park are hereby established and made public:

1. *Entrances*.—Automobiles and motorcycles may enter and leave the park by the southwestern or Nisqually River entrance and the northeastern or White River entrance.

2. *Automobiles*.—The park is open to automobiles operated for pleasure, but automobiles carrying passengers who are paying, either directly or indirectly, for the use of the machines (excepting, however, automobiles used by park concessioners) will not be permitted on the road above Longmire Springs.

Careful driving is demanded of all persons using the roads.

The Government is in no way responsible for any kind of accident.

3. *Motorcycles*.—Motorcycles are admitted to the park under the same conditions as automobiles and are subject to the same regulations, as far as they are applicable.

4. *Roads; hours*.—Automobiles will not be permitted to enter or leave the park before 6 a. m. or after 9 p. m., except in case of emergency, but no automobile or motorcycle shall enter the park, or leave Longmire Springs or Nisqually Glacier in either direction later than 8.30 p. m. The use of automobiles will be permitted on the Government road between Nisqually Glacier and Paradise Valley on a one-way schedule only, under which cars leave Nisqually Glacier ascending and Paradise Valley descending on each hour, 8 a. m. to 7 p. m., inclusive, passing at Narada Falls on each half hour.

5. *Permits.*—The permit must be secured at the ranger station where the automobile enters, and will entitle the permittee to go over any or all of the roads in the park. It is good for one trip only. The permit must be conveniently kept so that it can be exhibited to park rangers on demand. Automobiles carrying passengers for hire will be admitted on single-trip permit only, good to Longmire Springs and return.

6. *Fees.*—Fees for automobile and motorcycle permits are \$3 and \$1, respectively; single-trip permits to Longmire Springs only are \$3 each. These fees are payable in cash only.

7. *Distance apart; gears and brakes.*—Automobiles while in motion must not be less than 50 yards apart, except for purpose of passing, which is permissible only on comparative levels or on slight grades. All automobiles, except while shifting gears, must retain their gears constantly enmeshed. The driver of each automobile will be required to satisfy the ranger issuing the permit that all parts of his machine, particularly the brakes and tires, are in first-class working order and capable of making the trip, and that there is sufficient gasoline in the tank to reach the next place where it may be obtained. The automobile must carry at least one extra tire.

8. *Speeds.*—Speed is limited to 12 miles per hour ascending and 8 miles per hour descending grades and when approaching sharp curves. On good roads with straight stretches and when no team is nearer than 200 yards the speed may be increased to 20 miles per hour.

9. *Horns.*—The horn will be sounded on approaching curves or stretches of road concealed for any considerable distance by slopes, overhanging trees, or other obstacles, and before meeting or passing other machines, riding or driving animals, or pedestrians.

10. *Lights.*—All automobiles must be equipped with head and tail lights, the headlights to be of sufficient brilliancy to insure safety in driving at night and all lights must be kept lighted after sunset when automobile is on the roads. Headlights must be dimmed when meeting other automobiles or horse-drawn vehicles.

11. *Muffler cut-outs.*—Muffler cut-outs must be closed while approaching or passing riding horses, horse-drawn vehicles, hotels, camps, or checking stations.

12. *Teams.*—When teams, saddle horses, or pack trains approach, automobiles will take the outer edge of the roadway, regardless of the direction in which they may be going, taking care that sufficient room is left on the inside for the passage of vehicles and animals. Teams have the right of way, and automobiles will be backed or otherwise handled as may be necessary so as to enable teams to pass with safety. In no case must automobiles pass animals on the road at a speed greater than 8 miles an hour.

13. *Accidents; stop-overs.*—Automobiles stopping over at points inside the park, or delayed by breakdowns or accidents of any other nature, must be immediately parked off the road, or, where this is impossible, on the outer edge of the road.

14. *Fines and penalties.*—Violation of any of the foregoing regulations will be punishable by revocation of automobile permit, or by immediate ejection from the park, or by a fine not to exceed \$500 or six months' imprisonment, or by any combination of these penalties, and be cause for refusal to issue a new automobile permit to the

offender without prior sanction in writing from the Director of the National Park Service.

15. *Time.*—Automobile drivers should compare their watches with the clocks at checking stations.

16. *Reduced engine power, gasoline, etc.*—Due to the high altitude of the park roads, ranging between 3,000 and 5,500 feet, the power of all automobiles is much reduced, so that a leaner mixture and about 40 per cent more gasoline is required than for the same distance at lower altitudes. Likewise, one gear lower will generally have to be used on grades than would have to be used in other places. A further effect that must be watched is the heating of the engine on long grades, which may become serious unless care is used. Gasoline can be purchased at regular supply stations as per posted notices.

PANORAMIC VIEW.

Panoramic view of Mount Rainier National Park, 19 by 20 inches, scale 1 mile to the inch, may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. Price, 25 cents.¹ Remittances should be made by money order or in cash.

This view is based on accurate surveys and gives an excellent idea of the configuration of the surface as it would appear to a person flying over it. Ten colors were used in the printing, the ice being shown in light blue, the meadows and valleys in light green, the streams and lakes in light blue, the cliffs and ridges in combinations of colors, and the roads in light brown. The lettering is printed in light brown, which is easily read on close inspection, but which merges into the basic colors when the sheet is held at some distance.

MAP.

The following map may be obtained from the Director of the United States Geological Survey, Washington, D. C. Remittances should be made by money order or in cash.

Map of Mount Rainier National Park; 20 by 18½ inches; scale 1 mile to the inch. Price 10 cents.¹

The roads, trails, and names are printed in black, the streams and lakes in blue, and the relief is indicated by brown contour lines.

LITERATURE.

GOVERNMENT PUBLICATIONS.

Government publications on Mount Rainier National Park may be obtained as indicated below. Separate communications should be addressed to the officers mentioned.

DISTRIBUTED FREE BY THE NATIONAL PARK SERVICE.

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.

Glimpses of our National Parks. 48 pages.

Contains descriptions of the most important features of the principal national parks.

Automobile road map of Mount Rainier National Park.

Shows the park road system, trail system, hotels, camps, garages, superintendent's office, routes to the park, etc. Also contains short description of Mount Rainier and suggestions for motorists. Printed in two colors.

Map of National Parks and National Monuments.

Shows location of all the national parks and monuments, and all railroad routes to these reservations.

¹ May be purchased by personal application at the office of the superintendent of the park at the entrance, but that office can not fill mail orders.

SOLD BY THE SUPERINTENDENT OF DOCUMENTS.

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

Mount Rainier and its glaciers, by F. E. Matthes, 48 pages—including 25 illustrations. Price, 15 cents.¹

This pamphlet contains a general account of the glaciers of Mount Rainier and of the development of the valleys and basins surrounding the peak.

Features of the flora of Mount Rainier National Park, by J. B. Flett. 1916. 48 pages, including 40 illustrations. 25 cents.¹

Contains descriptions of the flowering trees and shrubs in the park.

Forests of Mount Rainier National Park, by G. F. Allen. 1916. 32 pages, including 27 illustrations. 20 cents.¹

Contains descriptions of the forest cover and of the principal species.

National Parks Portfolio, by Robert Sterling Yard, chief, educational division, National Park Service. 1917. 260 pages, including 270 illustrations. Pamphlet edition, loose in flexible cover, 35 cents; book edition, containing same material securely bound in cloth, 55 cents.

Contains nine sections, each descriptive of a national park and one larger section devoted to other national parks and monuments.

BIBLIOGRAPHY.

ALLEN, E. F. A guide to the national parks of America. 1915. 286 pp.

BRYCE, JAMES. University and historical addresses. 1913. 433 pp.

National Parks—The need of the future on pp. 389-406.

DUMBELL, K. E. M. California and the Far West. 1914. 198 pp.

Glacier, pp. 23-26; Crater Lake, pp. 26-27; Mount Rainier, pp. 30-41; Mesa Verde, pp. 78-80; Yellowstone, pp. 83-90; Yosemite, pp. 147-156; Sequoia, pp. 161-162.

FINCK, H. T. Pacific coast scenic tour. 1890. 309 pp., illustrated.

Mount Rainier on pp. 209-216; Crater Lake on pp. 157-158; Yellowstone on pp. 279-293; Yosemite on pp. 81-107.

FOUNTAIN, PAUL. The eleven eagles of the West. 1906. 362 pp.

Mount Rainier on pp. 110-112; Crater Lake on pp. 46-49; Yellowstone on pp. 173-198; Yosemite on pp. 21-27.

HALLAHAN, D. F. Tourists in the Northwest. 1914. 151 pp.

Yellowstone, pp. 42-86; Mount Rainier, pp. 99-109.

MEANY, E. S. Mount Rainier, a record of exploration. 1916. 325 pp.

MILLS, ENOS A. Your national parks. 1917. 532 pp., illustrated.

Mount Rainier on pp. 116-136; 460-469.

RUSSELL, I. C. Glaciers of North America. 1897. 210 pp.

Mount Rainier on pp. 62-67.

——— Volcanoes of North America. 1897. 346 pp.

Mount Rainier on pp. 241-245; Crater Lake on pp. 235-236.

STEEL, W. G. The mountains of Oregon. 1890. 112 pp.

Mount Rainier on pp. 43-51, 55-65; Crater Lake on pp. 12-33.

WILLIAMS, JOHN H. The mountain that was God. 1911. 144 pp., illustrated.

WINTHROP, THEODORE. Canoe and saddle. 1904. 375 pp.

Mount Rainier on pp. 123-154.

YARD, ROBERT STERLING. The top of the continent. 1917. 244 pp., illustrated.

Mount Rainier on pp. 115-139.

——— The Book of the National Parks, 1919, elaborately illustrated.

Chapter devoted to Mount Rainier.

¹ May be purchased also by personal application at the office of the superintendent at the entrance to the park, but that office can not fill mail orders.

OTHER NATIONAL PARKS.

The circulars containing information regarding the national parks listed below may be obtained free of charge by writing to the Director of the National Park Service, Washington, D. C.

Yellowstone National Park.

Yosemite National Park.

Crater Lake National Park.

Mesa Verde National Park.

Sequoia and General Grant National Parks.

The Hot Springs of Arkansas.

Glacier National Park.

Rocky Mountain National Park.

Wind Cave National Park.

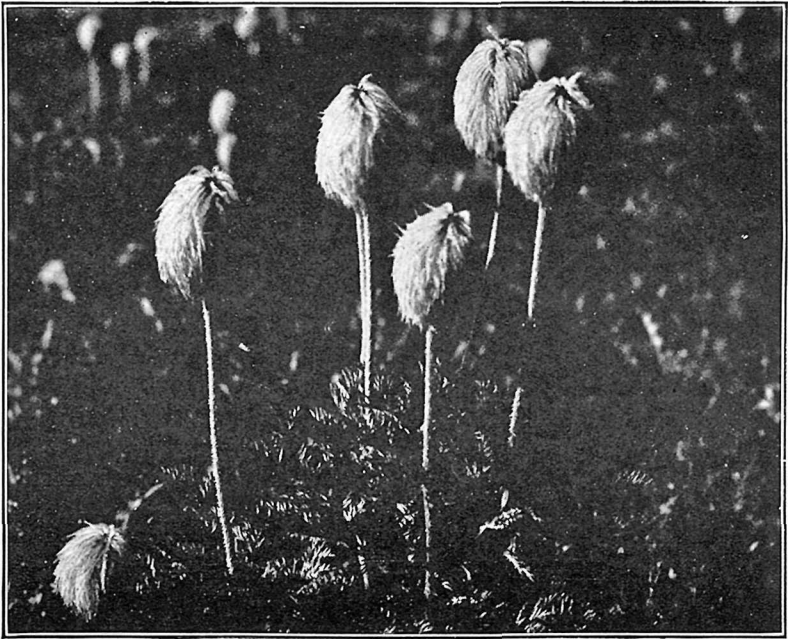
NATIONAL MONUMENTS.

The following publications relating to the national monuments may be obtained free of charge by writing to the Director of the National Park Service, Washington, D. C.:

Casa Grande National Monument.

The National Monuments.

Contains brief descriptions of the national monuments administered by the Department of the Interior, the Department of Agriculture, and the War Department (excepting Casa Grande, Verendrye, and Katmai National Monuments).



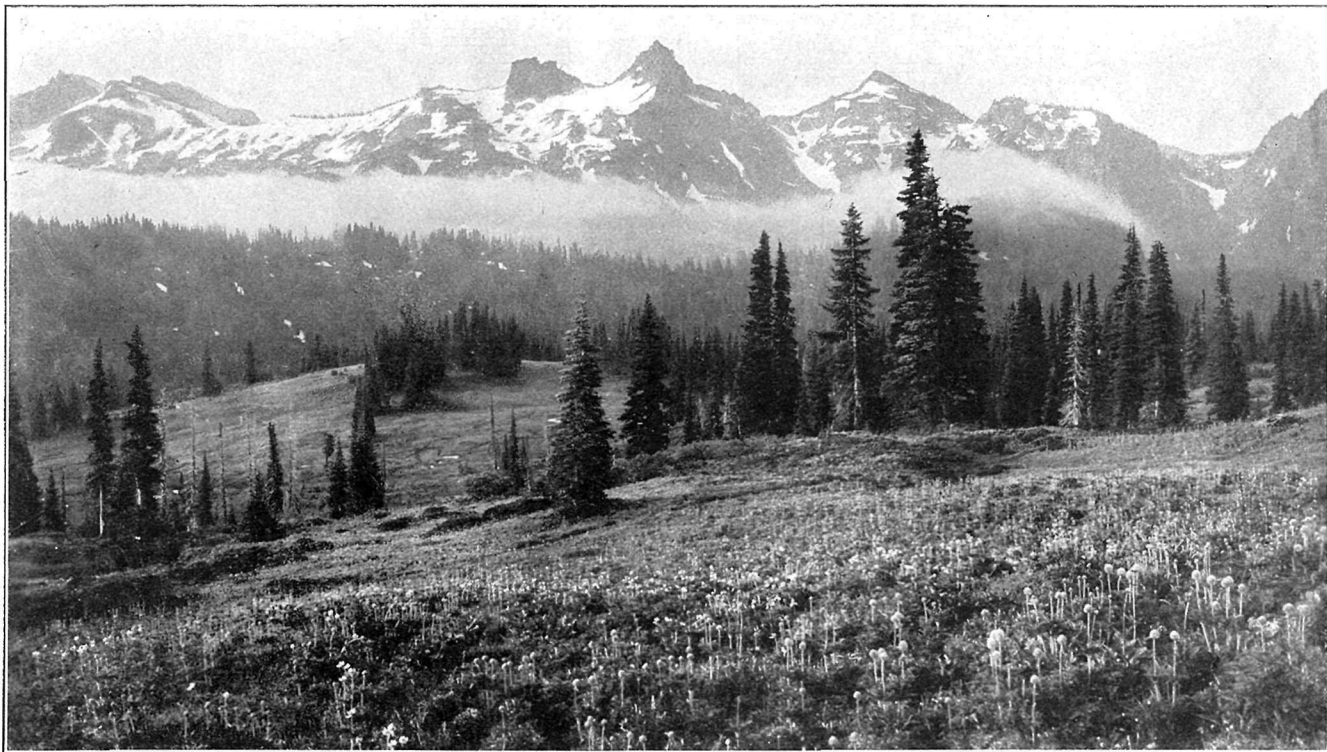
Seed pods of anemone.

Color of flower, lavender; height of plant, 8 to 20 inches; blooms July and August.
Photograph by Asahel Curtis.



Western anemone (*Anemone occidentalis*).

Photograph by Asahel Curtis.



The Tatoosh Range, Paradise Valley in foreground.