

MOUNT RAINIER NATIONAL PARK



PARADISE INN IN PARADISE VALLEY



THROUGH ICE AND CEDAR



A CREVASSE BY SEVENTY'S GLACIER

UNCLE SAM'S 1920 "Illustrated Catalogue" of Mount Rainier National Park is off the press. It is an interesting booklet of 51 pages of text, maps and illustrations. It contains everything the tourist needs to know. It could not very well be dull, for Mount Rainier is one of the most interesting of the 19 peaks in our national park system.

Incidentally, Uncle Sam should rename the national park. Its name means nothing to the 50,000 Americans who visit it in vacation time. It should have a good American name. A change in name, of course, means changing the name of Mount Rainier since the mountain is one-third of the whole park.

Peter the Great, on his deathbed in 1725, decreed that Vitus Behring, a Dane in his employ, should cross Siberia to the unknown western sea, build two ships and search for the fabled passage to the Atlantic. Thus came about the Russian possession of Alaska and of the north Pacific coast.

Perez, in 1773, and Huceta, in 1774, both Spaniards, explored the Pacific coast, discovered Nootka sound and suspected the Columbia river from the breakers on its bar. In 1777 Capt. James Cook discovered Cook's Inlet, but missed both Juan de Fuca's straits and the Columbia. Capt. Robert Means of the East India company discovered the straits in 1788 but dared not cross the Columbia's bar.

International jealousies brought about the Nootka Convention of 1790, which gave the British the right to fish and trade, provided they did no colonizing.

Then in 1792 came an American, Capt. Robert Gray of Boston, in the Columbia, the first American ship to sail around the world (1790). It took this dauntless American sailor nine days to get through the breakers on the Columbia's bar. He sailed 30 miles up this noble river and named it after his gallant ship.

That same year Capt. George Vancouver of the British navy was sent to enforce the Nootka convention. He explored Puget sound, but balked at trying to cross the Columbia's bar. He met Captain Gray, who told him of his ascent of the river. But the British commander balked at the breakers, took possession of the country in the name of his sovereign and left Lieutenant Broughton in the Chatham to explore the river if he could. Broughton got into the river and ascended 100 miles by launch. He saw Mount Rainier, about 100 miles away and was struck with awe. Like a true British naval officer he named this magnificent mountain, rising 14,408 feet almost from sea level, after Rear Admiral Peter Rainier.

Mount Rainier is 42 miles from Tacoma and 37 miles from Seattle. It is the sight of sights from either city. As is well known, these two cities have a feud over the name. Tacoma calls it Tacoma and Seattle calls it Mount Rainier. This is not to say that the controversy should be decided in favor of either city. But "The mountain that was God" of the Indians, one of the most impressive of earth, should have a better name than Rainier.

Here are some random extracts from the introductory pages of Uncle Sam's booklet:

"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. Matthews 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 four and six 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."

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.

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.

Mount Rainier stands, in round numbers, 11,000 feet above its immediate base, is nearly three miles high, measured from sea level, and covers 180 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 tree stump 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.

Later on this great cavity, which measured nearly three 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; 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. 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 sup-

posed to be the highest point in the United States, still bears the proud name of Columbia Crest. It is essentially a huge snow-drift, or snow dune heaped up by the furious westerly winds.

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 Frylingpan, 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, brook-like, 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.

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 Henry's Hunting Ground, Paradise, Summer Land; and there are many others.

"Above the forests," writes John Muir, "there is a zone of the loveliest flowers, fifty miles in circuit and nearly two miles wide, so closely planted and so luxuriant 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, erythronium, 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 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.

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 fringing 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. 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 7,000 feet. There is no distinct timber line.

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HAD USE FOR HIS MILLION

Zeb Would at Least Employ It Good Advantage, as Far as It Would Go.

A party of baymen gathered round the stove in a little oyster shack on the Great South bay started the old, old question as to what they would do if they suddenly came into possession of \$1,000,000. Some bought great ocean-going yachts; others endowed schools, and one even offered to contribute his to help out the government.

The question finally came round to old Zeb Banks, noted as the ne'er-do-well of the fishing neighborhood.

"And now, Zeb, you've been keeping pretty quiet," one of them said. "Just what'd you do if you had a million dollars?"

"Well, I don't know 'zactly," responded Zeb reflectively as he spat at the stove. "I reckon I'd pay it on my debts, 's far as it went."—Saturday Evening Post.

The Latest Style.

"William Dean Howells," said an editor, "often joked about the latest styles."

"The minister made a witty reference to the latest style in his sermon, didn't he?" Mr. Howells said one Sunday morning to a young lady of New York.

"Did he? How?" asked the young lady.

"Why, didn't you notice?" said Mr. Howells. "He chose his text from Revelations."

TO MEET THE EMERGENCY

Youngster Had Little Difficulty Making Up His Mind as to What He Would Do.

As the old lady strolled on the cliffs near a seaside town she came across a lad dressed in the well-known scout's rig.

"What do they teach you in the Scouts?" she asked him, with a beaming smile.

"To be manly citizens, and true to king and country," replied the lad promptly.

"And what are you going to be when you grow up, my little man?" went on his self-appointed examiner.

"A soldier, to fight for the king," was the patriotic reply.

"Very brave," applauded the old dame. "Now, suppose you saw the king's coach dashing along, with runaway horses, straight toward the edge of this cliff, what would you do?"

The youngster eyed her in disgust. Evidently she was one of those people who never imagine a boy has any sense. He determined to settle her once and for all, so he replied:

"I'd shut my eyes, and sing, 'God Save the King.'"—London Answers.

Bygones.

"We must let bygones be bygones." "I endeavor to do so. I no longer give a thought to the time I wasted making up my mind how I would vote in the primaries."—Washington Star.

Celebration.

Knicker—"Did he have a birthday cake with candles?" Bocker—"Yes, he had a cake of yeast and got lit up."

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