MOUNT ST. HELENS.

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St. Helens, the youngest of the volcanic peaks of the Cascade Range, is thirty miles west and out of line with the older peaks, thus being more susceptible to climatic change. It stands out clear, clean, alone, not dwarfed by other mountains or hills nearly its height in close proximity—an oval dome in shape.

When its winter coat of snow is on, filling its crevasse system, covering its buttes and even the rock chimneys around its crater top, then and not till then is it a perfect white with no mark or foul blot upon its shield. Then with its 10,000 feet, it is a wonder to look upon and should be seen to be appreciated. Some scenes in the hill system at times are not made for words, are beyond description. One is simply lost in wonder.

Routs and Trails Leading to It.

From Castle Rock, Washington, there is a direct wagon and automobile road forty-eight miles distant to the now used camping grounds on the south side of Spirit Lake, and north side of the mountain. Three and one-half miles south to the base of the mountain, where the climbers' troubles begin, trails are cut to the open land near the base.

From Woodland, Washington, on the Northern Pacific Railroad, going forty-five miles north by wagon road and pack trail, one may reach the south side of the mountain.

It may also be reached from Vancouver, going northwest thirty miles by railroad and then by wagon and packs to the mountain.

One knowing the location of the country can go through to the mountain, not following the known trails, but at the expense of hardships and privation.

Climbing Routes Used.

If climbing from the north side one will notice a long ridge, called the lizzard from its twisting course, from which two-thirds of the way up over a small snow field is a bunch of rock shaped like an immense boot with the toe pointing west and the top of the boot straight up the mountain. Beware of this rock boot; it is labeled dangerous. Here is located a just comfortable, modern, right up-to-date, orthodox-warm place, with steam heat if desired. Most climbers take a look at it going up. Ice will be found from 600 feet to the top on the north side. It is a steep, sharp climb but the shortest route to the summit.

On the northeast corner one may make his way over Black Butte, thence by winding around among the crevasses of the East Side Glacier, going north around the longest crevasse on the mountain, nearly three-fourths of a mile in length and, in 1908, six feet wide at the top, thence to the summit. (This route was impossible this year on account of the crevasse system.)

The east side climb may be made by going south to the skyline ridge east from the top, thence up Eastside Glacier, at all times avoiding the moving rock slide on the southeast corner north of Lewis River Glacier, as it is dangerous. Also, if it is thawing or a heavy wind is blowing, avoid all concave chan-

nels as the rocks from the top are disintegrating and roll down rather carelessly at times.

The south side is a long, gradual slope and the kindergarten side for a climb.

From the west or northwest no known one has climbed as yet.

Attractions.

A trip to St. Helens furnishes a pleasing outing because of the good roads leading to it and because the mountain itself is easily accessible from permanent camp. Spirit Lake, a body of crystal water covering 1,800 acres, has been sounded to a depth of 1,300 feet and no bottom found. There is any amount of trout in the lake from one to three feet in length. One in a boat can see them by the hundreds, but they are contrary and bite only when the spirit moves them. It is a trolling proposition except when the wind ruftles the water just right, then the expert fly fisher makes a killing.

There is the best of drinking water and plenty of fuel.

Around the base of the mountain is a dim trail. The forest rangers are cutting a trail to Mount Adams which is distant thirty-three miles air line, but will be fifty miles by trail.

Lava Caves.

Lying some six miles from the mountain base on the southeast corner are the lava caves in the volcanic rock. Lava, being a bad conductor of heat, hardened on the outside while the inside being still molten, flowed on and out thus forming underground channels. These have been explored for one and a half miles without reaching the upper end. It winds downward in easy curves, river like and in a line direct from the monntain, thus showing whence it came. The lower end is filled with lava. At places along its course are openings where the rock roof has fallen in. A current of air circulates down this flume. The roof is nearly fifteen feet below the surface.

The bed of this volcanic stream is twenty feet wide, nearly level, and littered with the debris of the last flow. The banks of the channel are well defined, about six feet high, straight up with parallel lines showing the different flows. The slope is about a three per cent grade, with a roof twenty feet high, semi-circular in shape with a brown glazed appearance like



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MT. ST. HELENS AND SPIRIT LAKE

dark stoneware, covered with little stalactites. In places the roof has fallen in and the danger of falling rock from the roof is the only one in exploring the tunnel.

This cave was first discovered by Ole Peterson while hunting in 1895.

Wells.

On the south are round caves, some in a slanting direction gradually tapering to a point which, like the well holes, were formed by the molten lava flowing around fallen or standing trees that were destroyed by heat or decay. The perfect form of the bark in many of the well holes fixes the manner of their formation beyond doubt. Evidently, St. Helens had bad spells long after its first formation.

Age.

Its age is shown by the botanical and geological evidences in sight. Its flora is scant, in fact, mere nothing; yet as time goes on it will be different. The soil is yet to be formed, being now only coarse decomposed pumice and rock formation, not yet dense enough to hold moisture. Trees growing near the 4,000 foot elevation are mere shrubs, fifty years' time being necessary for one to reach a three and a half inch diameter at the base.

Away from the base of the mountain at an elevation of 3,000 to 5,000 feet, the yellow cedar is found in common with the tree formation of Western Washington, with the exception of the white bark pine.

This year the huckleberry crop was prodigious, some of them equal in size to small cherries and the woods blue and black with them.

Return Routes.

One could cross or go around Spirit Lake going north, thence on a trail now open over Mary's Peak divide; thence down Green River to the Soda Springs; thence to mouth of said river where the trail connects with the road to Castle Rock. Or one could go out via South Toutle River, due west from the mountain, connecting with the ingoing road forty miles from the mountain or via Vancouver to Portland and thence home.

St. Helens as Seen from the Top and Otherwise, September 24, 1910.

Through the invitation of W. A. Williams of Tower, Wash., who has teams, wagons, etc., galore, and with two of the "Kelly Clan" of Tacoma, we left Castle Rock for the mountain September 22 at 8 a. m. and were in camp at Spirit Lake at 1 p. m. on the 23rd.

Mr. Geo. Williams, a forest ranger, young, strong and knowing the mountain like an open book, volunteered to make the climb with me just to show the way. Say! I was glad he did, for I doubt my having made it alone. In fact both of us met with the surprise of our lives in mountain work ere the day was over.

I had not seen the mountain at close range for two years and I had not known the location and general contour would have needed an introduction. The erosive wear and tear of the glaciers is appalling. It looks like a fleeting, changing world, abiding not. Evidently, there is a new shuffle of the cards for St. Helens. More hot places are now known than ever reported before. The two steam jets were still playing like the exhaust of a small engine. You find the hot places in the yellow-colored rock. We found two new ones on the leg of the boot.

The ice on the north side was three-fourths of a mile higher up than commonly, with the Eastside Glacier like unto an immense coarse spider web, broken, torn and awry, each separate thread representing a crevasse in depth from a point to eighty feet, and any width one wants. Last spring an avalanche of snow starting near the top cut off and down ten acres of timber one mile from the base of the mountain, passing over the old snow at a height of eight to twelve feet and cutting off trees eighteen inches in diameter like pipe stems. A mass of ice and debris now blocks one of the trails for a short distance.

The Climb.

We left camp at Spirit Lake at 7:30 a. m. for the north side. There was a dense fog at the lake and at the base of the mountain. Going northwest over a route new to me, being higher up the mountain, we hit the lizzard at two-thirds of its length up. Then we were above the clouds, they being

just a fleecy mass below us, lying so quiet that it seemed that the wind above held them down. Only the higher peaks were visible.

The rocks began rolling and we thought a goat-herd was above and that we might see them. The wind, biting cold and blowing a gale, made climbing over the pumice and loose rock slow and tedious. Before this, had found snow, but on this trip, both up and down, took not a step except on ice or rock.

We tried going up the ice along the boot leg but the wind blew the rocks loose to such an extent that we were forced west to the top of the ridge on the leg of the boot. We staid with the ridge till it met the glare ice six hundred feet from the top. Now our troubles were on. I was wearing the calks and alpinestock, both dull, and the same clothing as on the Chelan trip and had about twenty-five pounds of junk in the coat pockets (always enough to set up camp for one night), so much that it was balloon shaped and so could not button it. The wind now would discount a Kansas cyclone. While cutting steps for the first 300 feet, it would pick up the coat from the back and flop it over my head, easily. (Have forgotten the list of adjectives used).

At the end of the first 300 feet, we ducked behind a small cliff and tried to warm up. 'Twas no use; the wind found us, so we started on and up, now and then cutting a step. At 1:20 p. m. we dropped over the chimney rock into the crater, chilled through and through, with the four fingers of my right hand frozen through heavy gloves. We warmed up some and then went over to the box, Williams fishing it out from under the rocks. We went down under the knoll. He wrote legibly, I didn't.

Climbing this time was like getting into trouble, easy going in but hard to get out. Some one had said that no person could climb from Black Butte this year so, kid like, we looked it up, going down the east side. It was true. Nothing but a flying machine could pass the crevasses surrounding it on three sides. Twas the worst system ever caught in. On the east side, the ice was concave in places which helped some from just common glare ice. Farther down, for a time it looked as though we were stuck and would fail to get down, but by crossing sundry narrow crevasses at favorable places, we were clear of them and far below Black Butte.

We reached camp at 6:15 p. m. and personally, I was nearly all in. We had been without water till late in the afternoon when we broke ice in the crevasses to get it. Even Lewis River was cut off from the mountain flow which was frozen solid.

Supper was awaiting us. Good commissary with huckleberry sauce goes far towards making one forget the toil of the day.