

ASCENT OF MT. SHASTA.

Mt. Shasta is the most impressive peak known to travelers. The grand distinguishing features of Mt. Shasta, those which give it this pre-eminence, are not so much its lofty height of 14,442 feet, but first its entire isolation from other peaks, and second its majestic up-rise of nearly 11,000 feet from the midst of a heavily forested plain, broken here and there only by meadows of robust grasses and rich cultivable fields.

The plain around Shasta is only 3,567 feet high, from which the magnificent double cone arises over two miles vertically, in a lineal incline of less than ten.

The ascent requires a day and a half. You go the first half day to a stated camp at the timber line and remain for the night. Early the next morning you leave horses and climb the peak, arriving at the monument some time in the P. M. The descent is made, the whole distance of 18 miles, back to the hotel by supper time.

On the afternoon of the 7th of July our party of eight started from the usual headquarters of tourists at Shasta—Simons' hotel, in Strawberry valley. We were mounted on sure-footed horses and directed by an experienced guide. The trail led at first through a thinly-forested even plain for three miles, then gradually ascended over rough lava and conglomerate boulders to an upper parterre or bench several miles wide and surrounding Shasta on all sides. Here the common pines, with the white fir and Douglas spruce, that form the bulk of Californian forests, leave off, and the noble fir (*Abies nobilis*), of Douglas, often called from the color of its bark when broken "the red fir," occupies the plateau exclusively. This is perhaps, all things considered, the most beautiful tree at all ages in the West. Trees of 5 feet in diameter and 150 feet high, do not depart from the graceful arrangement of their spray in youth, but still display their immense, horizontal, fan-shaped limbs in symmetrical, diminishing whorls to the top. On the upper limbs, erect and firm, stand the purple or yellowish cones, clothed with long, pointed bracts that depend from between the scales, causing the cones to resemble owls at roost on the tree tops.

Fringing the upper edge of this fir forest and running up the projecting rock-ribs of Shasta, are two more cone-bearers, found only on such elevations in this latitude—*Pinus albicaulis*, or the "white stemmed pine," and the *Picea Pattoniana*, or "silver spruce." Both these trees are often misnamed; the first *Pinus flexilis*, the other *Abies Williamsoni*, but the former names have been established by the highest American authority after much examination.

The evening of our camp where timber and snow banks mingle, was clear and fine, inviting to study the stars in the brilliant canopy.

Later, after all were under blankets spread over pine and fir boughs, the cold air poured down the sides of Shasta lifting blankets or piercing them so sleep was banished except from the mountaineers of the party.

At the dawn of daylight we were up and shivering around a large fire while swallowing a forced breakfast, made barely eatable by a tin cup of delicious coffee. Then selecting alpenstocks from a store at hand, we started up the smooth hard snow beneath which rumbled and ground an incipient glacier. Our course as indicated by the guide lay directly up the deep canyon of the broad inclined valley on the southeast side. There was no dodging the smooth, forbidding, snowy steep by any zigzag approaches. Six thousand four hundred feet of vertical rise (over a mile and a quarter) must be made by about five miles upward grade. Does not that statement appal the RURAL reader? No wonder so few persons attempt to scale Shasta. Only about three dozen names are registered in the book prepared for the purpose and kept in a cairn of rocks near the monument.

A party, preceding us by a few days, failed to

reach the top, though composed of stalwart hunters. Every season parties essay in vain to conquer Shasta. Ours was the first to succeed this year. Personally, I never had such difficulty in getting a foothold in climbing snow-clad peaks, or was so much affected by the rarity of the air. Every few rods I was obliged to drop down on my face and rest a few seconds, a proceeding soon adopted by nearly all the party.

Arrived by slow, toilsome labor to about the upper third of the down-swooping canyon, the steeper snowface, shaded from the morning sun, was found nearly as hard as ice. We had to strike feet and pike repeatedly into the flinty slope, in order to make a half-inch ledge for the side of our nailed boots. Not a word was spoken. Questions as to direction, were asked of the guide, and answer returned by motions. Only the ring of iron-shod boots and resonant pike, with the hard breathing of your nearest companion, was heard. The inclination was about 25 degrees only from the vertical. Dropping to the surface now to rest was impossible. We could only keep to the steep incline by carefully keeping one foot and the pike in place. Below, the chasm yawned a full mile of threatening descent; above, a steeper mile stretched away to the sky.

By 2 P. M., we reached the hot springs in the old crater. These are still rumbling and spouting series of *solfataras*, the vestiges of the monster crater, a mile across, out of which poured a stream of lava that now overlies the plain for 100 miles around, but disintegrated and forming rich soil for one of the noblest pine forests in the State.

Lying on the interior heated rocks to rest, we learned from our guide how John Muir and Jerome Fay passed a fearful night there in April of 1875, roasting and freezing alternately, an adventure which Muir subsequently so graphically portrayed in *Harper's Magazine*. It appears that a change to cold and storm occurred in the night, the snow falling thickly upon the adventurers, and melting by the warmth of the gas jets, with no pure heat to dry them off. Being short of food they were forced to return the next day though the terrific wind froze their garments stiff as sheet iron. Arrived at the base, they found their feet so frozen that blisters formed all along the sides, and eventually they lost most of their toe-nails. Muir had to keep his bed for a fortnight, but the time was not lost to the lovers of grand and graphic descriptions.

On the way up I was deeply interested in the different features presented by the noble old volcano of Lassen, distant southward 70 miles, but so distinctly seen as to seem only 20 miles away. He rests upon the eastern side of an alpine, snow-covered plateau, 20 miles across. With those daring friends, Case and Larsen, I had with great difficulty botanized the whole of that region, including the lofty Lassen. Now I was soaring 3,000 feet above the monument of that peak while the whole plateau lay unrolled at my feet.

Arrived at the summit of Shasta, undoubtedly the most diversified and extensive landscape is presented that ever astonished human understanding. You seem standing on a pedestal, rising out of the bottom of an immense, hollow hemisphere joining the equally extensive, over-arching hemisphere of the sky by an irregular, waving line at the horizon. The optical illusion is perfect. You are not perched two miles above the general earth's surface, but only raised up to its level.

It is impossible for pen to picture the details of this landscape as we saw it on that clear, cool, still July day. Not a valley or plain, not even a near canyon was obscured by smoke or dust. The whole anatomy of the many-ribbed Sierra Nevada, curving its vertebra to the sun in the southeast, was disclosed. The many parallel coast ranges with white tipped spines rode rank on rank in the west. Between these monster skeletons reposed the yellow grain fields of the Sacramento valley. Eastward rolled wave on wave of noble forests, limited at last in the far horizon by the peaks of the Warner range, shutting out the Great Basin of Nevada.

Northward this forest gives place to treeless plains, to interior, alkaline lakes and broad, fertile valleys. Of peaks the list would embrace hundreds, including nameless snow drifts glistening on the distant Oregon Cascades, 300 miles away, and the well-known St. Helena, Hamilton, Lola and Tahoe peaks as far away southward in central California.

A dense dark bank lying along the western horizon beyond the coast ranges, told where lay the cloud-forming Pacific. Was ever grander, clearer, more picturesque scenery vouchsafed to mortal gaze?

The physical features of Shasta—the immense, old, extinct volcano on which we stand—are past description in one newspaper article, even if I had the ability. We can but briefly examine its double crowns of unequal heights; gaze down into their broken-sided craters; smell, hear, feel and see the hot, sulphurous gases still escaping from the highest crater; trace the out-cropping ribs of lava gaily striped with red breccia, black mica, gray trachyte and brown scoria, extending from crater mouth down to timber line; follow the still living glaciers between, in their slow, majestic march down along the track of their mighty predecessors in the old ages, these glacier beds now appearing like the smooth trail of monster serpents as they form the peculiar curving, steep-sided river valleys entering and hiding in the dark, evergreen forest on all sides; we can see all these visions, then come away from Shasta bearing with us glorious, ever-recurring, priceless memories forever.

The descent of Shasta is a speedy, and in our case, was a most enjoyable experience. Arriving at the top of the precipitous canyon, described on the way up, we prepared to slide down on the now softened snow, by passing a loop of baling-rope attached to a barley sack over our necks, allowing the sack to drop down in front, then sitting down upon the sack, for protection against injury to clothes—aye, and flesh, too, perhaps, if certain rocks known to be near the surface around yonder bend should be exposed by this warm afternoon sun.

Sitting down on the edge of the precipice, then removing the pike from the snow, away we dropped one after the other, skurrying along and swaying from side to side, swiftly down the long canyon. At once, as soon as the leader plunged off the precipice, he set up a shout of joy, which was taken up by each follower in turn, and soon a grand chorus of yells and cheers resounded all along the line. There were several collisions and upsets, which were instantly rectified, and one sharply-contested race. Friends at the hotel, 10 miles away, happened at the moment to be looking for us with the aid of opera glasses, and they declare that we shot down the whole mile and a half in less than half a minute.

It was noon next day before all the Shasta pilgrims became visible around Mrs. Simons' dining table, exhibiting nearly every degree of exhaustion, blindness and suffering. Each had a story of special adventure to relate, and of peculiarly ecstatic enjoyment experienced, but the expression most often heard—the one that met with unanimous concurrence—was: "I'll never be so foolish, again, never!" But, dear reader, we were tired then, and so, perhaps, are you.—J. G. Lemmon, in the *Pacific Rural Press*.

THE MISSISSIPPI JETTIES FINISHED.—Capt. J. B. Eads reports, under date of July 10th, that the greatest depth and width of channel required by the Jetty Act at the month, and also at the head of South Pass, has been secured. The completion of the great work was certified to the Secretary of War the same day by Capt. M. R. Brown, of the United States Engineers, inspector of the work. The jetty channel is over 30 feet deep, and a good navigable channel of 26 feet, measured at the lowest stage of the river, exists at the head of the passes. The benefits to commerce likely to flow from this brilliant achievement are inestimable.

The man who lays by any "dust" must wade through considerable mud.