THE MOUNTAINEER

VOLUME X · 1917

MOUNT ST. HELEN'S and MOUNT ADAMS

PUBLISHED BY
THE MOUNTAINEERS
INCORPORATED
SEATTLE WASHINGTON

Mabel Furry

MOUNT ST. HELENS

From the edge of the young growth of pine on the north base rise abruptly the pumice slopes and glacier-clad flanks of Mount St. Helens. At the right is seen the pointed nose, slender body and curved legs of the Lizard, as the long narrow pumice ledge is called along which the climb of the mountain is usually made.

The Mountaineer

VOLUME TEN

December 1917

Mount St. Helen's *and* Mount Adams

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Incorporated 1913

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The Mountaineers
Incorporated
Seattle, Washington

Mountaineers!

Yours is the pleasure of keeping the mountains secure in the hearts of men. Never a pilgrimage is made by you, but you stir the Left-Behinds to eagerness for clean blue skies, long reaches of sea and plain, great spreading forests and that upward climbing which is best of all.

Keep climbing Mountaineers! The romance and the inspiration

of our country is in the
mountains and on the sea!
Give us annual example!
The hordes of men below you
are still too occupied with the
tasks of killing, making, buying
and selling to follow you now.
But your song of mountains
is in their ears! They are
succumbing. Someday they will
follow you into the glory of
mountains, never again to return
as they were.

Henry Suzzallo

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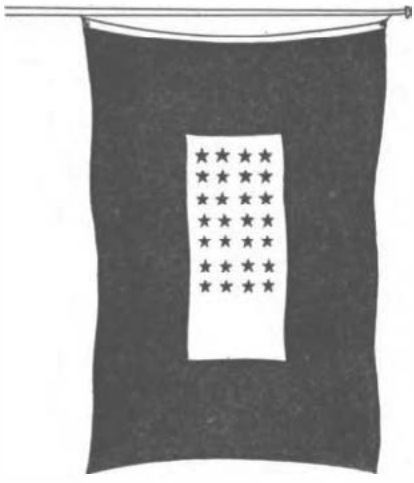

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The Mountaineer

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THE ST. HELENS—ADAMS OUTING

ALMA D. WAGEN

"Climb the mountains and get their good tidings.
Nature's peace will flow into you
As sunshine flows into trees.
The winds will blow their freshness into you
And the storms their energy,
While cares will drop off like autumn leaves."

—John Muir.

TO "climb the mountains and get their good tidings," to camp at timberline with the "Guardians of the Columbia," to follow the shadowy trails leading to the haunts of the Redman, through verdant forests of moss-hanging trees, across streams of rushing waters, on over patches of snow, pocketed in the hanging slopes of the mountains, up over heights laid waste by fire, where only the bare skeletons of former trees still stand, ghastly apparitions, glistening in the sunlight, back to the cool protecting forests, now over meadows carpeted with springy, cool grass, now into parks with their enchanted gardens, up and up, crossing raging torrents, over one ridge and along the sharp crest of another, skirting great buttresses of piled-up lava, then down through canyons and up over ledges and down again through grassy vales with their meandering streams, now leading out into the yellow pine country, gutted and channeled by huge lava drives, leading on past sparkling lakes, then on through oceans of dust, on and up over a sky-line trail to the very playground of the Redman—this in brief was the itinerant outlook for the eleventh annual outing of The Mountaineers, August fourth to August twenty-fifth, 1917.

It was a happy, joyous, care-free crowd that emerged from the sleepers which had been side-tracked at Castle Rock, early Sunday morning, August the fifth. Lines of anxiety and care were already beginning to soften and even disappear—for had not the dunnage-bags, shrunken and shriveled in appearance, having lost two and a half pounds in weight since their last trip, been safely deposited for the Fords to pick up, with no terrifying scales in sight—and in their

stead lines of relief, expectancy, joy appeared in keen anticipation of the glorious three weeks to be spent in the great out-of-doors among the Guardian Peaks.

It took some ingenuity on the part of our leaders to assign the fifty-two members of the party to the various autos, all ready to transport us with our dunnage-bags to Spirit Lake. This being done we were off for a forty-five mile drive. It is a matter of controversy, even today, how we ever reached Spirit Lake. But we are one and all agreed that we were glad, gladder than ever, to shake off the turmoil, the rattle and clatter and rush and roar of the city, and to continue over Nature's thoroughfare "afoot and light-hearted".

On the shore of this beautiful lake we ate our lunch, and then started out on foot, up the mountain side three and one-half miles to the selected camp-site at timberline. The way led over a well-defined road covered with scattered fragments of pumice, through a beautiful forest which gradually frayed out in scattered pines and stunted trees as we reached the base of the mountain. Here under the snowy heights of St. Helens, a red flag, flying from the branch of a lonely pine, heralded us into our mountain home.

The commissary force with Mr. Curtis had arrived the day before and established camp. Those who had arrived early were already busy studying the ground carefully, trying to distinguish between spots where it is delicious to sleep and patches that mean a painful and humiliating experience. This was to be Main Camp, a five nights' stay, therefore a great deal of care was used and much deliberation given to the choice of the individual apartments.

Monday was announced as a sort of do-as-you-please day. Some members of the party walked to Lange, a postal station, others of piscatorial cult enjoyed the beauties and advantages of Spirit Lake. The aroma of strawberries wafted downward by the breezes enticed others up the mountain slopes, and some just stayed in camp. An excursion led by Mr. Curtis to Mount Margaret, a peak of the Coldwater Range, seven miles to the north of St. Helens and from which on a clear day an unusual prospect may be had, was the chief feature of the day. Through the opening branches of the trees along the wooded banks of Spirit Lake we caught, ever now and then, the deeply colored, sparkling waters of the lake, and the beautiful glistening dome of St. Helens in its emerald setting. Because of the spreading haze which obscured the landscape that lay within the range of vision, the upper slope of Mount Margaret was abandoned and the party returned to camp, thoroughly enjoying the exercise a fifteen-mile tramp affords.

There was not much need of a try-out trip this year, for the party as a whole soon proved themselves to be adepts in the various arts

L. F. Curtis

SPIRIT LAKE A large and very deep lake of surpassing beauty lying at the base of Mount St. Helens and completely surrounded by high and steep wooded hills.

necessary to qualify as sour-doughs, so it was merely as a muscle-builder that a trip up the pumice slopes of St. Helens to Lookout Point was planned. This point was about 1,500 feet above camp and afforded glimpses into the wooded parks with their secluded lakes and streams encircling St. Helens. While the photographers were interested in trying to catch the tantalizing glimpses of Rainier and Adams through rifts in the clouds hovering about them, others were enjoying the exhilarating sport of sliding, and watching the interesting demonstrations of "the stop," "the triangle," and "the hesitation" on the snow slopes bordering the pumice fields.

Forty-six members of the party under the guidance of H. B. Bennett, L. F. Curtis and A. S. Gist, stood all in readiness for the climb of St. Helens early Wednesday morning, August eighth. All preparations had been made the day before. Self-appointed cobblers had been busy calking, mending, and even tinning boots. A preliminary climb, too, had been made by Mr. Bennett, Mr. Gist, and Mr. Gould to determine the best course for the party. So when the whistle sounded, companies were formed, and we set off on our march to the merry tune of clanking alpenstocks as they grazed the fragments of pumice and lava strewn all about us.

Our course led up a zig-zag trail over the snow-slopes wherever they were passable and then, to avoid crevasses we clambered up two rocky slopes of soft pumice rock and loose blocks of lava known as

the Lizard and the Boot. About noon we reached the rim of the crater on the north side. Here we found a tent, protected from the winds by great masses of upheaved rock, a shelter for some men in the Forest Service engaged in building a lookout station on the south rim of the crater, the highest point of St. Helens, 9,750 feet elevation.

The day had been an excellent one for climbing, the sky was cloudless, and a stiff breeze cooled the heated brow of the climber and made him forget he was really laboring under great difficulties at times.

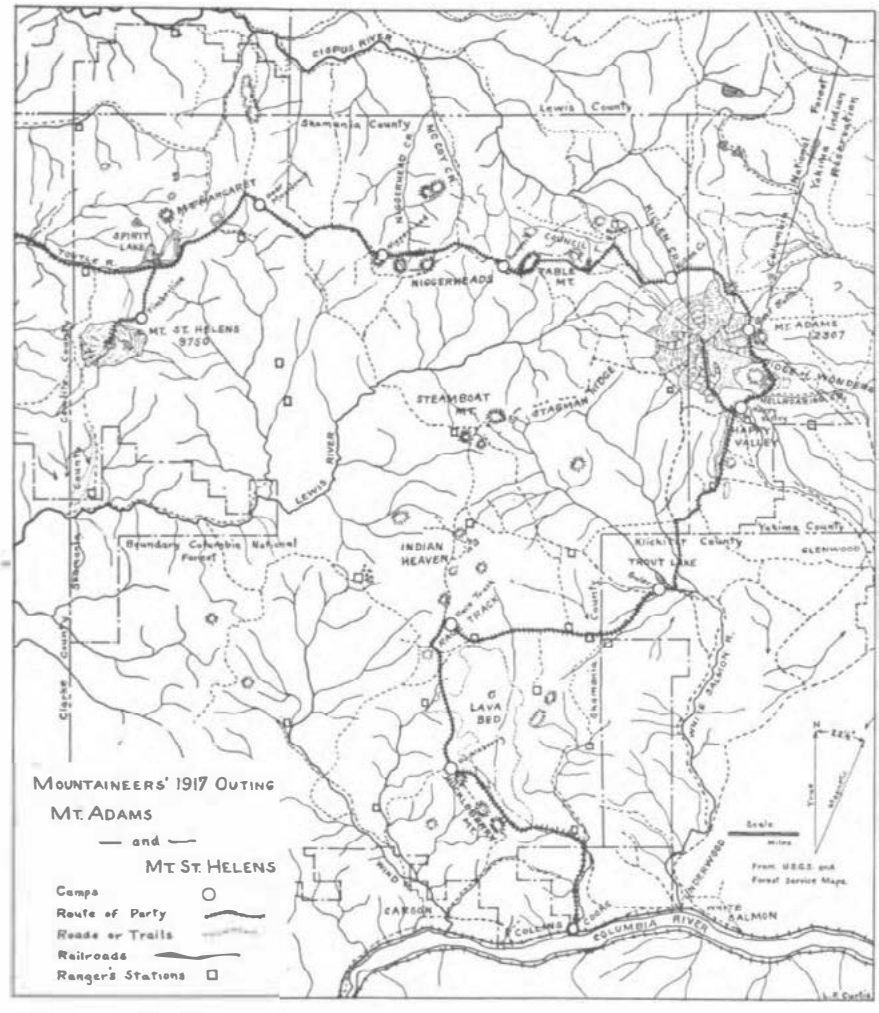
The distance of about one-third of a mile across the crater, over a field of dazzling snow, was soon traversed and then the joy of having made the climb, of having reached the highest point, the joy of attainment, was ours. In silent thoughtfulness we were lost for some moments to all else save the far-reaching spaces. Scanning the horizon for familiar landmarks we found Mount Rainier with his accompaniment of lesser peaks and ranges in the north, Mount Adams in a similar setting to the east. Because of the smoke to the south and west we could see but dimly the undulating contour of the country.

After examining the skeleton structure of the lookout station, and after registering and being properly photographed, we began the descent. Great care was needed on the rocky slopes to avoid loosening rocks. This made progress rather slow, so we took advantage of every snow-slope safe for sliding, and reached camp about five o'clock, with keen-edged appetities, sharpened by the exhilarating climb, all ready for the hot supper awaiting us.

Thursday was general clean-up day, for it was to be our last day in this delightful spot. The jingling of bells during the night announced the arrival of the pack train and in the morning after a readjustment of the bags to bring them down to normal weight, we started on our way to Midnight Meadows, officially known, however, as Bear Meadows.

There was a long delay at Spirit Lake, hours in fact, while the leaders of the party were trying to get a line on a shipment of supplies which should have reached Glenwood a week before. The packers who had just come from Glenwood, a station southeast of Mount Adams, were to have brought these supplies part way and left them in a cache to be picked up on our way. It was finally learned that the supplies had not yet reached Glenwood, but that they had been shipped from Seattle. After this encouraging report we were sent on our way rejoicing, the Committee feeling this assurance sufficient to warrant the continuation of the trip.

Leaving Spirit Lake about three o'clock we followed the Mount Margaret trail as far as Harmony Falls. Then for miles we moved



on up hill and down vale until darkness overtook us. There was nothing to do but keep a-groping along. Some of the horses did not appreciate the shape nor the size of their burdens and began to cause trouble and delay, so members of the party volunteered to help with the pack train. Candles set at irregular intervals the last mile or more guided the stumbling, weary horses and wanderers into camp. We supped, in sooth, by candle light at eleven-thirty among the sentinel fires.

Camp three among the Niggerhead snow-fields and mosquitoes was our next stop. From this camp we followed a lonely mountain trail through vast areas of burn, and from high up on the desolate slopes we could look back at the Niggerheads crouching and hiding behind one another, seemingly in fear of the accusing spirit sentinels,

pointing with sadness at the devastation caused by man. Finally, because of the lateness of the hour and the assurance of water, camp was struck three and one-half miles west of Table Mountain.

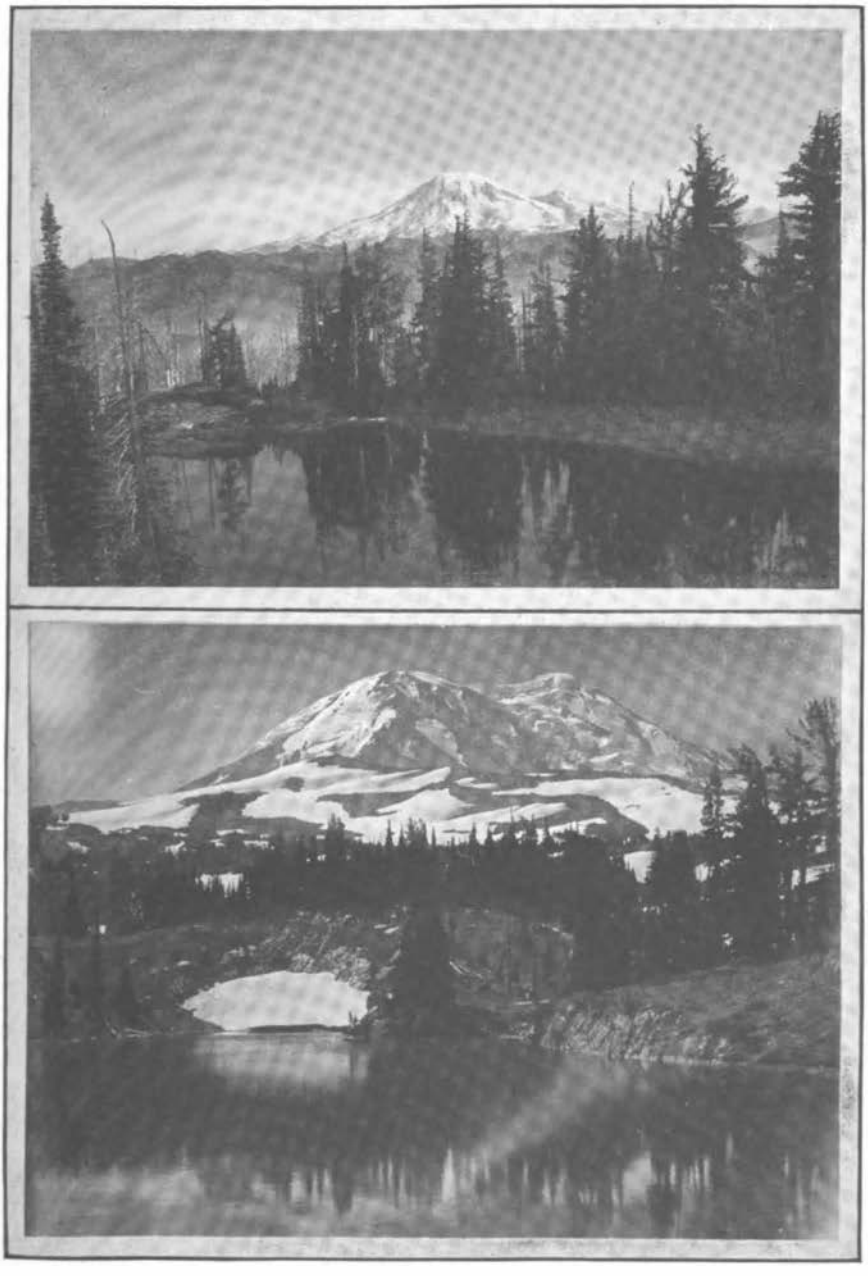
Over heights with their accompanying views and into depths with their flowery meads, a journey of fifteen miles the ensuing day, brought us to the first of our three Mount Adams' camps, Killen Creek, the permanent camp of the Mount Adams party of 1911, and the place from which they made their climb of the mountain. In this beautiful mountain park, at an elevation of about 6,000 feet, with its lakes, its flowers, its waterfalls, its snow-bridge, with Mount Adams in the foreground and Mount Rainier looming up in the north, in this Elysium, we were to spend a whole day.

Just at this point in our journey the commissary force fully appreciated Mother Hubbard's predicament—"the cupboard was bare" —and so did the Committee. But the members of the party Hooverized by taking a liquid diet without a murmur. It was from this camp that Mr. Bennett made his famous Marathon, skirting Mount Adams to the westward, keeping well up on its slopes, crossing several glaciers, and reaching Glenwood only to find that the commissary had been side-tracked at Lyle, a station thirty miles to the south. After all matters were arranged, with a packer and three pack horses, he started back to join us at our next camp, Goat Butte.

In the meantime we broke camp, loathe to leave Killen Creek with all its attractions, and started on our way, utterly unconscious of the anxieties and cares of our leaders. Sending the pack-train over the round-the-mountain trail, we took to the heights, keeping well up the slopes of Mount Adams, creeping in and out among the struggling white-bark pines, climbing dark masses of piled-up lava, crossing occasional snow-fields, and turning at every vantage point to look back at Rainier, majestic always, inscrutable and cold; though the warm shifting lights and shadows flitting about him at times in the early morn and at twilight lend him a gentler mien, it is for the passing moment only, for solemnly and calmly he asserts his individuality again as the cold purple grays envelop him. It was, indeed, another red letter day for the photographers.

Passing around Red Butte we reached camp six about two o'clock in the afternoon. This camp site at an elevation of 6,500 feet, with Goat Butte standing guard, was given a number of characteristic titles, as Gentian camp, Food Conservation camp, Lone Man's Vigil camp, and the Conquering Hero's camp.

It was early the next morning before rising call that an extra announced the return of Mr. Bennett with the delayed commissary. He had covered a distance of over seventy-five miles since he left us



A. H. Denman

MOUNT RAINIER AND MOUNT ADAMS

From Killen Creek camp on Mount Adams across the little lakes and the extensive plateau Mount Rainier appears in the north, a marvelous vision, while the broad flanks of Mount Adams buttress the rear.

at Killen Creek, and had walked all through the night to overtake us at Goat Butte camp. It is experiences of this sort so well met by our leaders that cause us to stand back, at attention, in deep appreciation of the thoughtfulness, sacrifice, and unselfishness that play such a leading part in life as lived in the great out-of-doors.

Continuing the sky-line trail of the day before and crossing Goat Butte pass at an elevation of 7,000 feet, it was not very long before we bade farewell to Rainier and the Goat Rocks. We were consoled for this loss, however, by the rare scenic combinations that met our gaze as we traveled southward, the beautifully colored cinder cones

L. F. Curtis

NORTHEAST SIDE OF MOUNT ADAMS

Crossing barren lava fields adjoining the Lava glacier on Mount Adams. A portion of the round-the-mountain trail.

and castle-like structures that vie with the formations in Yellowstone Canyon for their color as well as their architectural beauty. The various shades of brick reds mingling with the greens gave wonderful touches of color to the landscape. Afar to the southward through a veil of smoke, we could just see the fertile plains around Glenwood.

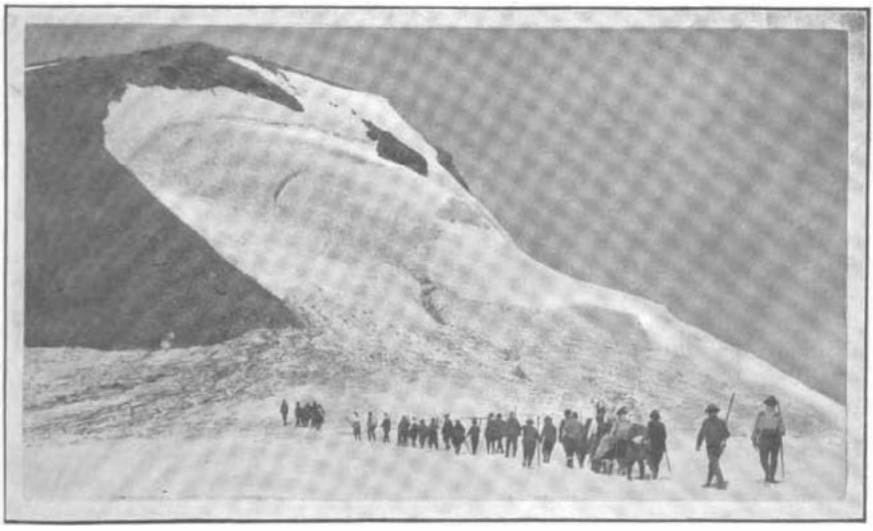
After a drop of one thousand feet we crossed the Little Muddy over a snow shelf and later the turbulent Big Muddy with the aid of ropes over a hastily constructed bridge. We then scrambled eleven hundred feet up a slope that rose almost sheer from the banks of the stream.

After rounding the east side of Little Mount Adams, one of the larger off-shoots of Mount Adams, and just glimpsing the awe-inspiring

Klickitat Glacier, our way led down into the wooded region of the Hellroaring Canyon, across this stream, up over one mountain terrace and then another until we reached our destination, Happy Valley, a park of vast area, some 3,000 acres, including every feature that one might picture in a sub-alpine park. Here in this forest- and rock-encircled glen on the south base of Mount Adams, at an elevation of 6,300 feet, we halted.

Saturday, August the 18th, was set for the climb which proved to be a comparatively easy and safe one. There were no serious obstacles to be met. The footing was much more secure on the fused masses of huge angular blocks of lava than on the pumice-bedded slopes of St. Helens. We missed the refreshing breezes of the latter, however, as we ardently climbed up the sun-beaten trail to the top. A constant shifting of scenery and an ever widening outlook met our gaze as we paused at times on our upward and onward march. On the so-called false summit at the head of the Klickitat Glacier, the unusual hummocked conditions of the névé were a source of great interest. The party, thirty-four in number, reached the top of Mount Adams, elevation 12,307 feet, about one o'clock, and here enthralled by "the elemental stillness of the heights" we loitered, filled with strange ecstasy, while trying to grasp and hold the wonder of it all.

On the way down we stopped at a rock ledge to view the startling precipices of the mighty Klickitat, encircled in the shoulder of the Ridge of Wonders. Then again we paused to gaze at Mount Hood,



W. H. Anderson

CLIMBING MOUNT ADAMS — Party near the head of the Klickitat glacier, starting for the main summit after reaching what is known as the false summit.

R. L. Glisan

HONEYCOMBS On the false summit of Mount Adams honeycombs or snow-cups form under the direct heat of the sun, some of them four and five feet deep.

with his ever-changing hue, and Mount Jefferson to the left of him, both lifted out of a band of gray-blue haze into the clear sky, like pendants suspended from some invisible chain.

The next day was given over to various plans. A small party left for the Ridge of Wonders and brought back enthusiastic reports of their trip; others went out to coast on the snow-fields; Mr. Lee and Mr. Glisan, who had come into our camp too late to make the climb with the party, climbed Mount Adams; and the rest of us stayed in and about camp, under the spell of the immediate presence of the mountain, at peace with the world and all mankind.

Trout Lake camp, better remembered as our irrigated camp, since some of us did not even see the lake, due, no doubt, to the heavy clouds of dust, brought us in touch with civilization again. Here, too, we paused, to get one more splendid view of Adams, whose magic spell was yet upon us.

Winding our way in and out among the lava formations, we continued through the wonderful larch and yellow pine country to camp nine, Race Track. En route we stopped to inspect the lava caves, which were a source of great interest to us all, especially the large ice cave, about a mile and a half southwest of Guler, where the temperature is low enough to keep ice formed during the winter from melting away entirely.

At Race Track we met with a rather unique situation, almost tragic—the white man arrived at his selected camp-site to find it

occupied by the Indian! Happy playground of the Redman! The huckleberry slopes, the Indian race-course, the picturesque tepees, the Indians themselves, all formed a part of the stage setting. An interesting day spent in this camp and then a sky-line trail along the ridge of Huckleberry Mountain, brought us within one day's journey of the Columbia.

For three weeks we had breathed in the free atmosphere of the mountains where the heart sings out with joyous freedom, we had met a continuous yet ever-changing series of inspiring views, and had found Nature

> "A world of ready wealth
> Our minds and hearts to bless—
> Spontaneous wisdom breathed by health,
> Truth breathed by cheerfulness."

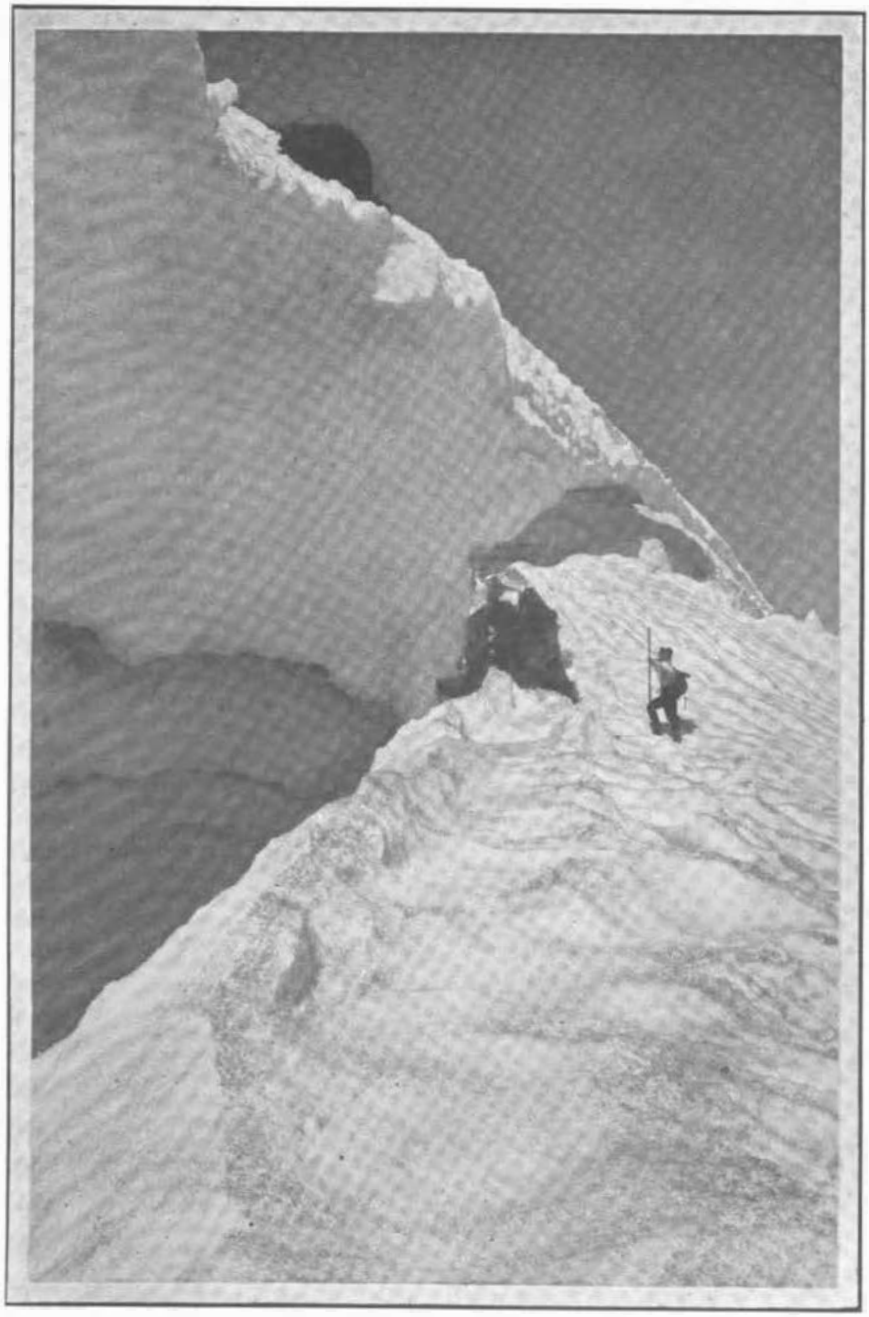
A tramp of eighteen miles with the loss of 3,500 feet in elevation brought us to Cooks Station. That night we camped on the banks of the Great River; and on the following day, as far as a heavy veil of smoke would permit, the party enjoyed the marvelous attractions that the Columbia offers. While waiting for the train which was to carry us back to the trammels of civilization we assembled at a camp fire on the Vancouver river lots. The last goodnight song being sung, let us stand at salute, for just a moment, to the Outing Committee, through whose untiring efforts this splendid and successful outing was made possible; to our president, Professor Meany, whose interesting historical accounts, legends, and verses lent such intrinsic value to our campfires; and to the mountains themselves, in whose immediate presence there grew up that good fellowship that prevailed throughout the trip, the mountains which, from their inner life, gave us of their silent strength and lofty peace.

Mabel Furry
MILES OF DUST

MEMBERS OF THE 1917 SUMMER OUTING

*†Wm. H. Anderson
* Winona Bailey
* Mary N. Baker
*†H. B. Bennett
Mrs. H. B. Bennett
*†Hortense Beuschlein
* Alida J. Bigelow
*†Lottie G. Bishop
*†Allie Blough
Crissie Cameron
*†Margaret Campbell
* Effie L. Chapman
*†Linda M. Coleman
Inez H. Craven
*†Leslie F. Curtis
* A. H. Denman
*†Elizabeth Dickerson
* E. W. Edwards
†Henrietta M. Eliot
* Kate M. Firmin
*†Mildred Firth
* Garda Fogg
*†Mrs. L. R. Frazeur
* Mabel Furry
Harold S. Gilbert
*†Arthur S. Gist
†Rodney L. Glisan
*†Jasper M. Gould
*†Jos. T. Greenleaf
†Elsa Grelle
†Fred L. Harford
†E. W. Harnden
* Joseph T. Hazard
* Mrs. J. T. Hazard
* Robert E. Hitch
*†Emma B. Hopkins
* Nancy E. Jones
*†Mrs. W. A. Keene
* Gladys M. Kellett
*Gwendolyn O. Kellett
* Elizabeth T. Kirkwood
†Gardner Kirkwood
†Ida R. Kratsch
†Gordon A. Lamb
Ida M. Larson
†John A. Lee
†Mabel E. McBain
Emma McCullough
†P. M. McGregor
* Edmond S. Meany
* Harriet E. Monroe
* Mary Mudgett
†L. A. Nelson
*†Karen M. Olson
*†Alfred F. Parker
* Arthur D. Platt
*†H. Wilford Playter
*†Sophie L. Schneider
* Stella Scholes
*†Lloyd L. Small
* A. B. Smith
*†O. J. Smith
* Gertrude I. Streator
*†Alma D. Wagen
*†Inez Wynn
*†J. Albert Baker
* W. C. Schroll

* Indicates climb of Mount St. Helens.
† Indicates climb of Mount Adams.



R. L. Glisan

BERGSCHRUND ON MOUNT ADAMS

Near the head of the Klickitat glacier on Mount Adams. From near this spot the Klickitat drops sheer off several thousand feet.

HISTORY OF THE ADAMS–ST. HELENS REGION

EDMOND S. MEANY

THIS part of the State of Washington has had an interesting history, dominated, of course, by the two great snow mountains lying not far apart. These mountains and their immediate environments were the lures for the journey of The Mountaineers in the summer of 1917. This sketch will therefore be devoted mostly to the mountains.

Let us begin with their discovery and their names. Mount St. Helens was the first named and its record is easily traced. Vancouver, after his discovery and exploration of Puget Sound and his negotiations with the Spaniards at Nootka, sailed along the shore southward. On Saturday, October 20, 1792, he made the following entry:

"The clearness of the atmosphere enabled us to see the high round snowy mountain, noticed when in the southern parts of Admiralty inlet, to the southward of Mount Rainier; from this station it bore by compass N. 77 E. and, like Mount Rainier, seemed covered with perpetual snow, as low down as the intervening country permitted it to be seen. This I have distinguished by the name of Mount St. Helens, in honor of His Britannic Majesty's ambassador at the Court of Madrid. It is situated in latitude 46° 9′, and in longitude 238° 4′, according to our observations."

That is the clear-cut record of the discovery and naming of that mountain. In the later years Hall J. Kelley proposed that all these mountains should be named for former presidents of the United States and that the entire chain be called the "Presidents' Range." In that scheme Mount St. Helens was to have been known as "Mount Washington."

While that Kelley scheme of names failed in all other cases, it is indirectly responsible for the name of Mount Adams. Probably the first civilized men to see this mountain were those of the Lewis and Clark Expedition. In their journal for Thursday, April 3, 1806, after describing the "Multnomah," now known as the Willamette River, they say: "From its entrance Mount Regnier [Rainier] bears nearly north, and Mount St. Helens north, with a very high humped mountain a little to the east of it, which seems to lie in the same chain with the conic-pointed mountains before mentioned. Mount Hood bore due east, and Captain Clark now discovered to the southeast a mountain

which he had not yet seen, to which he gave the name of Mount Jefferson."

Thus were Mounts Adams and Jefferson discovered on the same day. One was only noted and located, while Mount Jefferson was permanently named. Thomas Jefferson was then President and he was responsible for the Lewis and Clark Expedition. John Adams was still alive. He had refused to be present when his successor was inaugurated. In later years the two men renewed their friendship, but in 1806 there would have been little chance that either Lewis or Clark would have named a mountain for the unfriendly rival of their President.

In the Kelley scheme of names, developed from 1834 to 1839, Mount Hood was given the name of Mount Adams and, as already stated, Mt. St. Helens was to be known as Mount Washington. The two names of Hood and St. Helens were not seriously shaken by those efforts, but the name "Mount Adams" remained in the vicinity as a sort of echo. Let it be recalled that the two mountains (Adams and St. Helens) are not far apart and practically on the same parallel of latitude. Late determinations give the latitude of Mount St. Helens as 46° 11′ 52.3″, and Mount Adams 46° 12′ 14.4″. It is not surprising that early travelers confused the two peaks and called them both St. Helens. This sort of thing continued until 1853 when the Pacific Railroad Expedition, under Governor Isaac I. Stevens, placed the mountain on the map and gave it the permanent name of Mount Adams. After definitely fixing that name and while describing the surrounding country those railroad engineers occasionally wrote the name "Mt. St. Adams." Historians will, of course, refuse to see in such use of the word "Saint" anything more than a slip of the pen and a lingering confusion with the name of St. Helens.

Before dismissing this discussion of the names, it may be well to state that a rather baffling search is being made to find the real origin of the name Cascade Range. Up to date, we find that the earliest use of the name is by the famous botanist, David Douglas, who, on October 13, 1826, wrote: "Should I fail, I shall make my way through that very partially known country called 'Clamite,' to the northeast of where I now am, where I will find it without any doubt according to Mr. McDonald, who passed there in September, 1825. And this person being present when it came first under my notice, I requested he would look for it in the Cascade Range of Mountains or through that mountainous country between Mount Hood and another high snowy mountain to the south of it which I have denominated Mount Vancouver." The botanist was in search of the sugar pine and geography was only an incident. He tried to give the name of Vancouver to what is now

known as Mount McLoughlin, and he mentions the name of Cascade Range. If he had originated that name also he would probably have said so. Search for the real origin of the name of the Cascade Range must continue.

Next to the discovery and naming of a mountain, the most interesting item of its history is the record of the first ascent. In the cases of these two mountains the dates of their first conquest are relatively early and that of Mount St. Helens is definitely and beautifully recorded. Thomas J. Dryer, a newspaper man of California, moved to Portland and founded the Oregonian in December, 1850. In August, 1853, he headed a party which traveled from Vancouver to Mount St. Helens and climbed to the summit. He wrote a full account of the expedition, which was published in the Oregonian on Saturday, Septemper 3, 1853. The country, the rough trails, swift rivers and beds of lava were described. They followed the "military" trail blazed by the railroad surveyors until they had to retrace their steps and proceed more directly toward the mountain. When they found it impracticable to go farther with horses they camped. Let us now allow Mr. Dryer to tell in his own words about the actual ascent:

"The next morning [August 26, 1853] at the break of day, Messrs. Wilson, Smith, Drew and ourself took three days' rations, together with such things as were deemed necessary to aid us in the ascent, and left the camp for the summit, distant about four miles in an air line. We found the route a continual steep ascent, with the exception of an occasional descent over a precipitant ledge of rocks. About two miles from our camp we descended a high ledge to the bed of a small stream, which we followed until we struck the lava at the foot of the bare mountain—where vegetation ceases to make its appearance. The portion of this stream which we travelled has a fall of at least one thousand feet to the mile, and a much greater one higher up.

"The appearance of the mountain upon a near approach is sublimely grand, and impossible to describe. The blackened piles of lava which were thrown into ridges hundreds of feet high in every imaginary shape, with an occasional high cliff of primitive formation, seeming to lift its head above and struggle to be released from its compressed position, impress the mind of the beholder with the power of Omnipotence, and the insignificance of human power when compared with that of nature's God. Above all stands a tower of eternal rock and snow, apparently stretching its high head far above the clouds and looking down with disdain upon all beneath. The glaring sunbeams upon the 'snows of a thousand winters' serve by contrast to make the immense piles of lava appear blacker than they otherwise would.

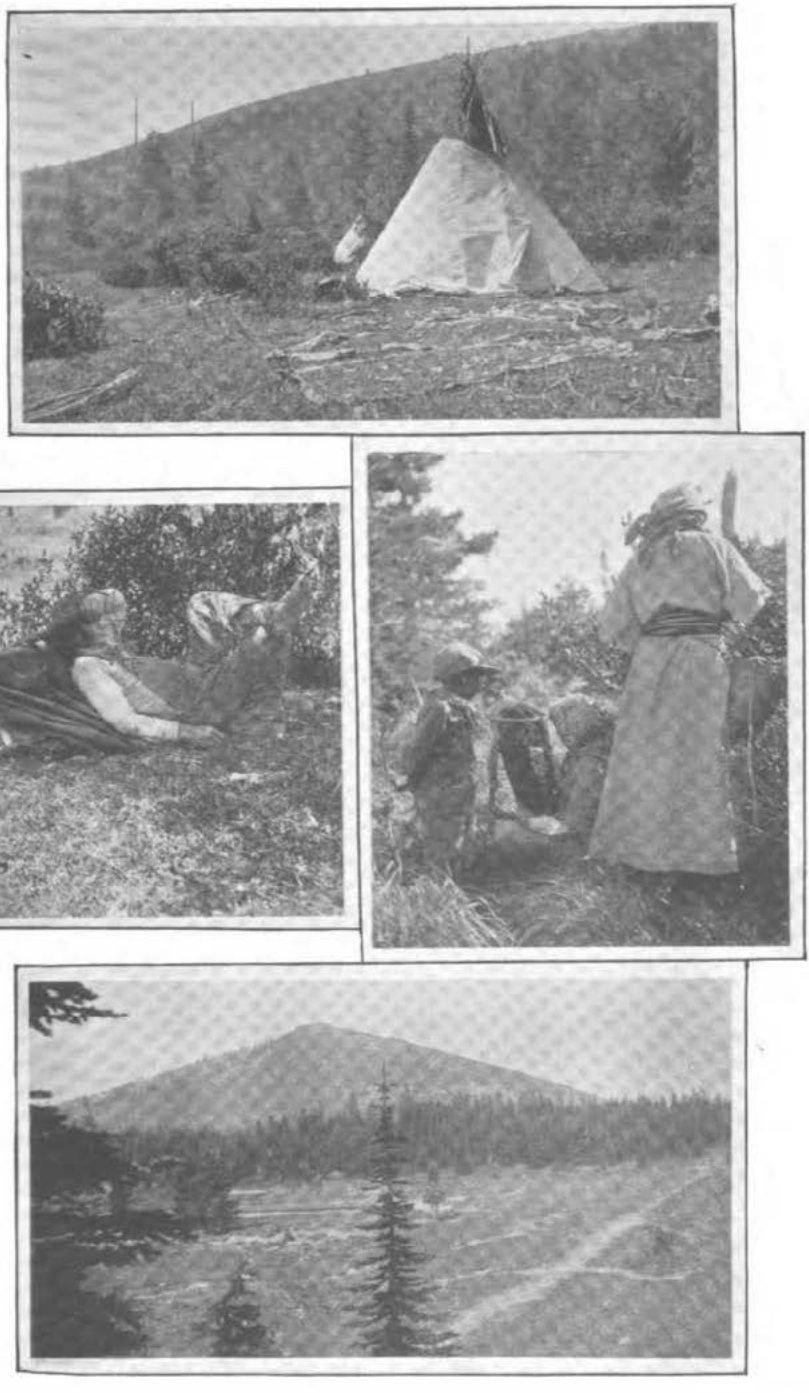
"We commenced the ascent at once on the south side by climbing up the cliffs of lava towards a small cluster of spruce trees which stand a short distance from the line of perpetual snow. After several hours' hard toil we reached this point, and finding a few sticks of dry wood, kindled a fire and made our camp for the night. We here supplied ourselves with water by melting snow.

"We found the night cold and extremely uncomfortable—our party did not find much repose, and as the eastern sky commenced to show the approach of day, we left the camp and pursued our way upward. The higher we ascended, the more difficult our progress. Suffice it to say that, by constant and persevering effort, we were enabled to reach the highest pinnacle of the mountain soon after meridian. The atmosphere produced a singular affect upon all the party, each face looked pale and sallow, and all complained of a strange ringing in the ears. It appeared as if there were hundreds of fine-toned bells jingling all around us. Blood started from our noses, and all of us found respiration difficult. With this exception we all felt well. It would be futile to attempt to give our readers a correct idea of the appearance of the vast extent of country visible from the top of this mountain. The ocean, distant over one hundred miles, was plainly seen. The whole Coast and Cascade ranges of mountains could be plainly traced with the naked eye. The snow covered peaks of Mounts Hood, Rainier and two others seemed close by. These form a sort of ampitheatre on a large scale, diversified with hills and valleys.

"The crater has been represented to be on the southwest side of the mountain, which is not the case. We took the bearing from the top of the compass, and found it to be on the northeast side. The smoke was continually issuing from its mouth, giving unmistakable evidence that the fire was not extinguished. There is much more snow on the north than on the south side; on the latter it is bare in spots, while on the former it is hundreds of feet deep. We examined fissures in the snow several rods across, which extended a great length along the side of the mountain; and on throwing a stone down heard it strike a long distance from us.

"After spending sufficient time to see what was to be seen, and building a pyramid of loose stones on the highest spot of level earth and ashes, we commenced our descent, and reached camp at 4 o'clock in the afternoon, tired and worn out in body and boots. At dark we reached the timber, and camped for the night. The next morning we left our encampment on the mountain for home, which we reached in four days."

Mr. George H. Himes, the well-known pioneer and historian of the Pacific Northwest, was kind enough to secure the above record from



Mabel Furry
Lower, J. T. Gould

KLICKITAT INDIANS AND SCENES OF THEIR YEARLY RENDEZVOUS

Huckleberries drying in the sun; characteristic poses; the Race Track. For years uncounted the Indians have visited the great huckleberry patches in southeastern Skamania County and dried their berries for winter use. Here, too, formerly gathered the tribes for great races.

the files of the Oregonian. At the same time he sent what is undoubtedly the only record of the first ascent of Mount Adams. It is a brief account, which Mr. Himes prepared ten years ago for a little magazine called Steel Points, as follows:

"In conversation with Mr. A. G. Aiken, of Marshfield, Coos County, Oregon (who, by the way, was in the same train to which I belonged while crossing the plains in 1853), I learned that Edward J. Allen, Andrew J. Burge and himself made the ascent late in August or early in September, 1854. These persons belonged to a party of men who left Steilacoom a few weeks before the ascent was made to work on the military road that was then being constructed by government authority from the Columbia River through the Naches Pass to Puget Sound, following generally the trail partially made by the immigrant party of the fall of 1853. It was while this company was camped a few miles northeast of the base of Mount Adams that the three above-mentioned persons decided to make the climb. As I have had a personal acquaintance with all three men, I have no doubt as to the fact of their making a successful ascent."

If any of those three men kept diaries or wrote letters about their climb, such writings may yet come to light. If not, this record rescued by Mr. Himes will probably have to stand as the account of the first ascent of Mount Adams.

On leaving Mount Adams and proceeding toward the Columbia River, The Mountaineers passed through the interesting region of the lava caves and Chequoss, the ancient mountain rendezvous of the Klickitat Indians. While enjoying a two-days' camp at the latter place opportunity was afforded of visiting the camps of a few Indians who were gathering huckleberries. There are two old, straight-away, Indian race-tracks there, but no evidence that they had been used since the white settlers came fifty or more years ago. Fortunately there is a record to be found in those Pacific Railroad Reports of 1853-4. They include a report on Indian affairs by George Gibbs. In speaking of the Klickitats, he says:

"Their usual residence during the summer is around Chequoss, one of the most elevated points on our trail from Fort Vancouver across the Cascades, where we met them at the beginning of August. They were, at this time, feasting on strawberries and the mountain whortleberry, which covered the hills around, though during the night the ice formed on the ponds to the thickness of half an inch. Towards the end of the month they descend to the Yahkohtl and Tahk Prairies, where they are met by the Yakimas, who assemble with them, for the purpose of gathering a later species of berry and of racing horses. The racing season is the grand annual occasion of these tribes. A horse of proved reputation is a source of wealth or of ruin to its owner. On

his speed he stakes his whole stud, his household goods, clothes, and finally his wives; and a single heat doubles his fortune, or sends him forth an impoverished adventurer. The interest, however, is not confined to the individual directly concerned; the tribe share it with him, and a common pile of goods, of motley description, apportioned according to their ideas of value, is put up by either party, to be divided among the backers of the winner."

With a few Indian berry-pickers, tepees and ponies on the ground in 1917, it was not difficult to imagine the scenes described by Mr. Gibbs as of sixty odd years before. That same writer gives an interesting Indian legend of the lava caves as follows:

"In descending to the valley from Chequoss, there occurs beneath a field of lava a vaulted passage, some miles in length, through which a stream flows in the rainy season, and the roof of which has fallen in here and there. Concerning this they [the Klickitats] relate that a very long time ago, before there were any Indians, there lived in this country a man and wife of gigantic stature. The man became tired of his partner, and took to himself a mouse, which became a woman. When the first wife knew of this, she was very naturally enraged, and threatened to kill them. This coming to the man's knowledge, he hid himself and his mouse-wife in a place higher up the mountain, where there is a small lake having no visible outlet. The first woman finding that they had escaped her, and suspecting that they were hidden underground, commenced digging, and tore up this passage. At last she came beneath where they stood, and looking up through the hole, saw them laughing at her. With great difficulty, and after sliding back two or three times, she succeeded in reaching them; when the man, now much alarmed, begged her not to kill him, but allow him to return to their home and live with her as of old. She finally consented to kill only the mouse-wife, which she did, and it is her blood that has colored the stones at the lake. After a time the man asked her why she had wished to kill the other woman. She answered, because they had brought her to shame, and that she had a mind to kill him, too; which she finally did, and since then she has lived alone in the mountains." The place is called Hool-hool-se from the Indian word hool-hool, mouse.

On the lower levels there are settlements like Glenwood and Trout Lake, a few farms, herds of cattle and bands of sheep; but for the most part the region is still wild. There are Indian trails and remnants of Indian camps. The forest rangers are there, building lookouts on the summits of the mountains and an occasional cabin by the trails. The wonderful beauties of the uplifted places are there in abundance. It is a region that will attract climbers and explorers for unnumbered years.

A. H. Denman

LAVA CAVES Great lava flows full of caves extend most of the way from Mount Adams to the Columbia river. In some places the caves are entirely below the surface and in others the crust has apparently broken away leaving open pits.

MOUNT SAINT HELENS, THE YOUNGEST OF THE VOLCANOES OF THE CASCADES

ALIDA J. BIGELOW

MILLIONS of years ago, in the geologic development of the wonderful Sound country, the Cascade Mountains were building up from the shores of a wide sea. The huge upheaval, caused by some internal stress, took on a north-to-south trend, extending about three hundred miles, with a width of about fifty miles. Today, the north and south limits are from Lassen Peak on the south to a little north of Mount Baker.

The growing coast line was made fairly parallel, as the different flows of lava were heaped one above the other. As the force of upheaval continued, huge blocks were tilted at various angles and in some places, much changed by the forces of heat and pressure, were uplifted with the forces of vulcanism of the age.

The crest line of the range thus formed is fairly even. The general altitude is 5,000 to 8,000 feet. Above this rise the wonder-

fully beautiful volcanic peaks of later date. These later peaks were probably built up as a result of molten lava escaping through fractures made at the time the mountain blocks were lifted; and because the lava was cooler and the openings less extensive, the force became more explosive, heaping up the materials in cones along the lines of fracture. These peaks take on a north-to-south trend as does the main range, and include Baker, Glacier Peak, Rainier, Adams, Saint Helens, Jefferson, Three Sisters, Hood, and others.

Of this family of peaks Mount Saint Helens might be called the youngest child, for evidences exist of recent activity in the region. Most of the older brothers and sisters have long since ceased venting forth the subterranean fires. Several of these older cones show wide ravages of weather and erosion.

Mount Saint Helens stands at an altitude of 9,750 feet, about thirty miles out of line with the other peaks, lifting its perfect conical head majestically above the surrounding hills. The cone is unbroken except for the recent glacial cutting, and the lower slopes reaching to timber line, present a smooth unbroken curve to the friendly hills of the base. Statements from frontiersmen give evidence of the cone's activity within the past fifty years. Emmons gives a story of a French-Canadian voyageur who tells of the activity in 1841-2. This man speaks of the light being very intense at midnight at a cabin twenty miles away. Other evidence of this period of activity was recorded by the early pioneers of Astoria and recent studies made by Yale University, in the vicinity of the lava flows to the south, prove fairly conclusively that the mountain has had recent activity, compared with the other peaks of the group.

As one leaves the green shadows of Spirit Lake and approaches the mountain, the road winds through a beautiful pine and fir forest. The soil here and for many miles around is practically the pumice from the mountain, with little wash from the valley sides. As one approaches timber line, the fir trees disappear and the lodge pole pine or pinus contorta makes up the forest vegetation. One misses the mountain hemlock and the white pine of the neighboring alpine slopes. Unlike the other snow peaks of the Northwest, this mountain has almost no alpine meadows above the timber line; the low straggling pines mark the upper limits of vegetation and the usual heather slopes are absent. This mountain is too new for the flower gardens that offer so much beauty elsewhere. Along the slopes of bare pumice leading to the snow line, some five hundred feet higher, wild strawberry vines have found a happy home and one visiting these fields in August may be surprised at the wealth of these little alpine pioneers.

The writer had visited several of the volcanic peaks of the Northwest, but had never been impressed with the feeling of a volcano almost in the making—as might be experienced in climbing the rugged slopes of Kilauea or the pumice of Fujiyama—until standing on the summit of Saint Helens and viewing the wide expanse of cinders, ash, pumice, and lava extending from all sides of the mountain slopes. Long swaths cut through the forest by the lava flows are too recent for vegetation and appear as red-brown ribbons winding away several miles from the mountain base. There are good examples of these diorite flows to the northwest and several to the south; the most recent perhaps are those to the south. This lava came from the sides of the cone and was not part of the upper cone's activity.

W. H. Anderson

CRATER OF ST. HELENS — Party crossing the snow filled basin of the crater to the highest point on the south side. Chimney Rock shows in the rim and to the right the distant tip of Mount Adams.

The cone itself is simple, broad, extending from north to south about a half mile, the southern end being higher, probably because of heaped-up snow. The crater is filled entirely with snow, the crater rim showing lava and pumice to the north and west, but either broken away or covered with snow to the east and south. A later intrusion of lava stands above the crater rim to the north and forms "Chimney Rock," a more resistant, monument-like mass of lava and pumice. To the north and west along the west top of "The Boot," steam caves and fumaroles give evidence of the internal heat of the peak. When the party stopped for lunch here, about two-thirds of the way up, the warm rocks were a happy choice in the icy breeze that prevailed.

The lava flows undoubtedly hindered the drainage about the mountain base. Swamps to the south and west show this and the wide expanse of Spirit Lake may be in part due to the damming action of pumice and lava on the Toutle River drainage.

Other extensive lavas of later date than the cone itself are seen to the northeast side of the peak where Black Butte stands out, a rugged mass of pumice and imbedded lava boulders, and to the northwest where "The Lizard" winds its long ridge of light grey pumice and boulders. It is over this ridge that most of the ascents of the mountain have been made. On the lower levels of The Lizard is an exposure of the original granite base of the mountain, unaltered in its upheaval with the volcanic rock, which points to the fact that the

H. W. Playter

LUNCH ON ST. HELENS — About a thousand feet below the summit a bare ledge slightly warmed by internal heat forms a comfortable resting place and ice caves caused by the same natural warmth furnish water from their drips.

last eruptions here were slow and of lava lacking great intensity of heat.

One of the most interesting phases of vulcanism of this mountain is the series of lava caves to the south and east. Here the sluggish lava filled up the spaces between the elevations and the low mountains. The best examples of the caves are about eight miles from the mountain base. It is assumed that as the lava moved slowly down the valley, it hardened on the outside, while the inside was still molten and flowing, forming curved channels directly in line with the valley and extending down from the mountain through the hardened shell-like crust of lava. These caves can be entered from the lower levels of

the lava flow one and one-half miles beyond the wagon road leading to the southeast side of the mountain. The roofs of the caves are in some places fifteen feet below the surface, are semi-circular in shape and glazed in appearance. The caves are twenty feet wide in some places and have a three per cent grade. They were discovered in 1895 by a hunter.

To the south and west of the mountain are other evidences of recent activity. Lava flowing down the valley sides surrounded the standing forest trees. Today the well-like openings in the lava give evidences of the trees that once stood here, by the charred edges and the impressions of the tree bark in the circular casts. A recent study made from Yale University, of this particular lava flow, proves the newness of the flow and the conditions of formation, which mark it as one of the latest phases of activity on Saint Helens.

There is a wealth of interest in this entire region and in the future many new features will be discovered by further study. A mystery surrounds this mountain that beckons one to return to its smooth slopes and to seek further for the story of its existence, for the calmness of its ever-silent, watchful cone and the music of its vast, wide, open spaces.

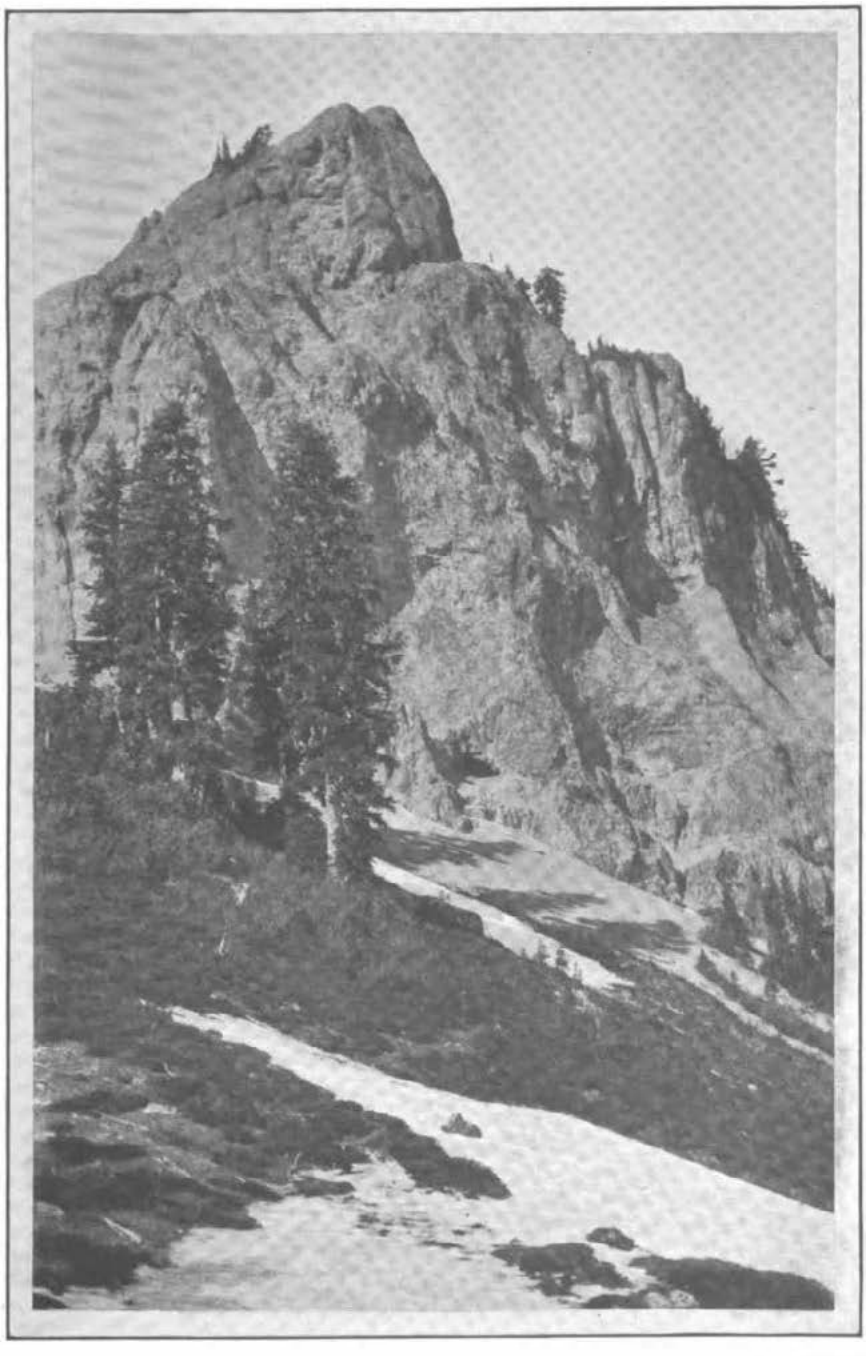
NOTES ON TOPOGRAPHY AND TRAILS

SAINT HELENS–MOUNT ADAMS DISTRICT

H. B. Bennett

ROM a center somewhere between Mount Adams and Mount St. Helens, a larger circle may be described without touching human habitation than in any other part of the state of Washington. The entire region between the two mountains is rough and mountainous and contains no improvements other than trails and a few prospectors' and rangers' cabins used for temporary shelter. Practically all of the region is heavily timbered but the contour is too difficult for economical lumber operations. There is no mineral of known value. Agriculture even in the lower parts of the narrow valleys must await a much more urgent demand for land than now exists. East of the Niggerheads, which are located about midway between the two mountains, sheep-growing is practiced, increasing in importance to the eastward. West of the Niggerheads, feed even for the camper's horse is difficult to find.

The Lewis and Cispus rivers both have their sources in the glaciers on the western side of Mount Adams. The one flows to the south, the other to the north of St. Helens. The ridge separating the



Mabel Furry

A NIGGERHEAD One of the highest of the dark rounded cliffs that cap the ridge about midway between Mount St. Helens and Mount Adams. In the shadow this this one, camp was made for one night during the 1917 outing.

two rivers and connecting the two mountains is sometimes called the "Niggerheads Ridge". The trail followed by The Mountaineers during the past summer closely parallels the summit of this ridge. The Niggerheads are a group of rocky peaks of about 6,000 feet elevation set on a section of the ridge perhaps five miles in length. The name arises from the black rounded rock in which some of the peaks terminate. In general, the ridge is narrow but not too sharp for the trail to run on the summiit. It is flanked on either side by spur ridges running almost directly north and south and maintaining their height well out to the Cispus and the Lewis. The valleys between these spurs are remarkable for their depth near the main ridge. For this reason they appear more like the result of glaciation than of erosion.

The trail makes but one considerable drop into these side valleys. The peaks and cliffs of the Niggerheads necessitate a descent of 2,000 feet to a crossing of Niggerhead Creek. An excellent trail with long switchbacks of easy grade compensates in large degree for this enforced loss of elevation. An older alternative trail around the south side of the Niggerheads makes a less descent but is rougher, steeper, and more subject to large snowbanks than the north side trail. Travelers should not expect to get through with horses early in the season on either trail. Snowbanks across the trail on very steep slopes make it dangerous. Some shoveling was necessary in August this year.

Approaching Mount Adams, the trail makes little dip and reaches timberline by easy grade. Toward the western end, nearing St. Helens, the trail drops off the ridge to the shore of Spirit Lake, which is about 3,200 feet in elevation. This is now the most difficult part of the trail but immediate reconstruction is planned by the Forest Service.

Highway approaches to Mount St. Helens are practically limited to the two now in use, the lower Toutle and Lewis valleys. With regrades now nearing completion the road up the Toutle to Spirit Lake will have a splendid grade. The upper half of the road is so full of rocks and roots as to be almost impassable. When surfaced it will be a beautiful drive. At small cost, the four miles of road between Spirit Lake and timberline could be made into a good highway.

Extension of this road beyond Spirit Lake toward either Adams or Rainier is hardly practicable. Spirit Lake is set in a huge ampitheatre facing St. Helens. The walls are about 2,000 feet high and very steep, though timbered. But midway up the Toutle, by encircling the western end of the Coldwater Range, a connection could easily be made with the upper Cowlitz Valley roads which lead directly to Mount Rainier. From the Cowlitz, a road up the Cispus and down the Klickitat would complete the connection between the three mountains and would also be one of the important arterial highways of the

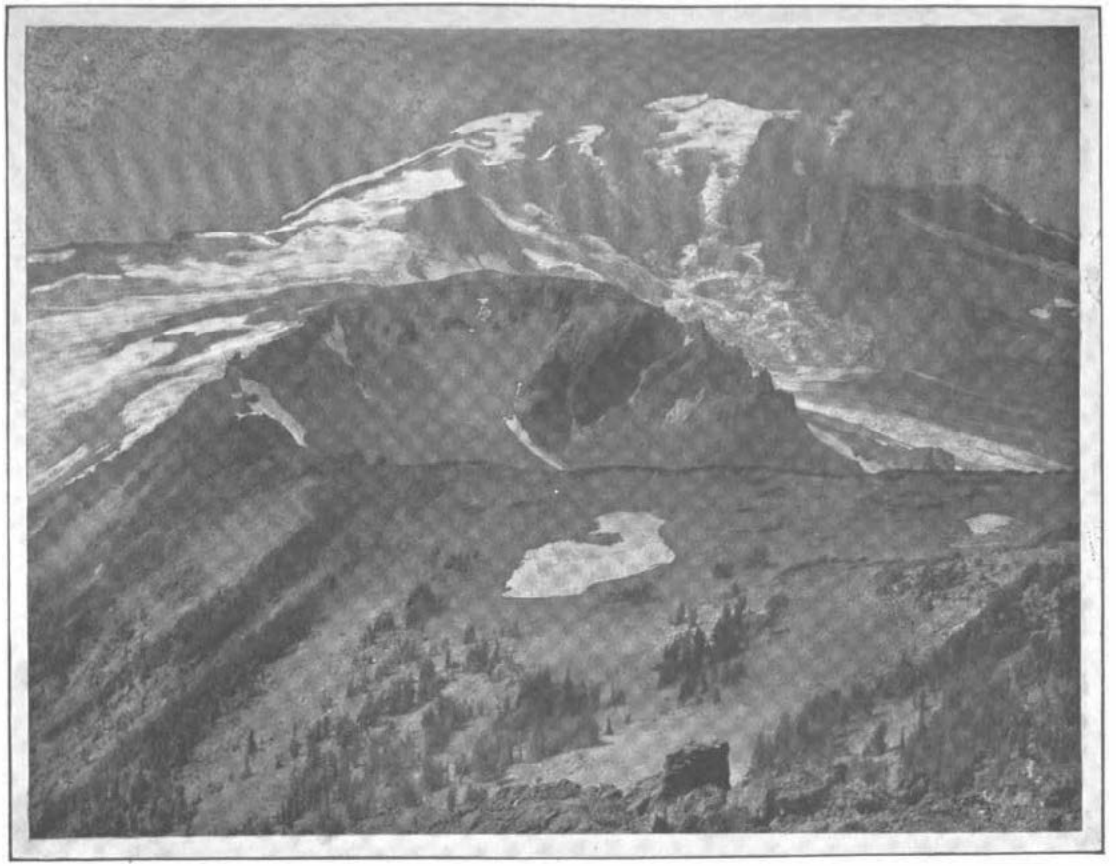
state. There is no road across the Cascades between McClellan's Pass and the Columbia River. None is projected unless it be at Cowlitz Pass. The suggested Cispus-Klickitat road would cross the range at 4,500 feet elevation about five miles north of timberline on Mount Adams. The pass is broad and open and, I believe, is free of snow for a greater portion of the year than is any other pass between McClellan's and Mount Adams. The grades of the Cispus and the Klickitat are uniform. A short branch road could readily be constructed from the Huckleberry Patch, just west of the divide, to the timberline parks on the north and west of Adams. From the mouth of Hellroaring Creek roads already lead to the parks on the southeast and south sides of the mountain. Such a road, connecting three of our great snow-peaks with each other and with the Columbia Highway and Mount Hood, would certainly be one of the most popular highways in the state.

The Mountaineers in future visits to the southern section of the state will find many places of great interest still unvisited. The next trip to St. Helens might be made via Morton, Cispus P. O. and the Quartz Creek trail over the Coldwater Range to Spirit Lake. This would provide a ready means of spending several days along the Coldwater heights and visiting the many lakes and meadows while enjoying unsurpassed views of the great snow-peaks. A knapsack trip around St. Helens including a visit to the lava caves on the south side should prove not too difficult and very interesting. Although the region between St. Helens and Adams is full of canyons, the bases of the mountains themselves are unusually free of them. Though the surface of St. Helens is practically all pumice, while Adams is lava-covered, they are alike in their contrast with the deep erosion of all other snow-domes of the Northwest. Only on the east side of Adams, where the nearness of the Klickitat valley has assisted the erosive forces of the mountain, is there anything formidable to the timberline traveler. Keeping on the lower ends of the glaciers, one may make, as I have, three-quarters of the circuit of Adams in six hours. The outer extremity of the Adams Glacier is broad and nearly level and yet drains into both the Cispus and the Lewis, the two largest streams heading in the mountain. These facts doubtless indicate that the glaciers of the other Northwest volcanoes are much older, and that those that ploughed the Niggerheads country were much longer-lived than the present glaciers of Adams and St. Helens. Further evidence of the youth of these latter is found in the great fields of comparatively fresh lava. The extremities and margins of these fields are indicated on the topographic maps by barred lines. The great fields north of Adams are freshest and are exceedingly difficult to traverse, even when traveling without a pack.

A. H. Denman

RIDGE OF WONDERS

This ridge, also called the Island, separates the Klickitat glacier and its drainage, the Big Muddy, from the Mazama glacier and Hellroaring canyon. It is wonderful both for its strange rock formations and curiously adapted tree life, and for the view point it affords for the mighty Klickitat. In many places there is a perpendicular drop of a thousand feet to the seamed and dingy ice of the glacier, while from the upper end of the ridge one seems to he looking into the very heart of the mountain, where broken ice hangs around red cliffs that drop their sands like blood on the frozen white cascades. In some places the view is unbroken from the névé fields of the summit, where the glacier breaks away in avalanches, down its less precipitous sweep and on to where it gathers its waters and sends them a turbulent stream roaring down the rocky canyon.



The next outing at Mount Adams should include visits to the west side parks and a camp of some duration on the Ridge of Wonders. From the Hellroaring bridge to the summit of Adams, this ridge is worth exploring. The most interesting approach to Adams is along the summit of the range from the Goat Rocks. The trail from the Goat Rocks is in good condition, very different from what it was in 1911. With a good road now completed well up toward the headwaters of the Tieton, a much more thorough and satisfactory outing through the Goat Rocks to Mount Adams may now be made.

CONCERNING OUR PICTURES

A. H. Denman

NO souvenirs of the outing can be compared with our pictures. Pictures should be more than souvenirs, more than our alpenstock, our bandanna, a lock of our lady's hair, be it black, golden, or terra cotta, more than things treasured for their associations and which make their sentimental appeals to ourselves only. Far better to obtain pictures than relics; for the relic hunter's peculiar temptation is to mutilation and pilfering. The more our pictures carry their own meaning, convey to others the emotions the subjects excited in ourselves as actual witnesses of the reality, so much the greater their intrinsic worth as pictures, so much nearer do they approach artistic perfection and become something more than souvenirs.

We all love a real picture. The materials for pictures are all about us. Examine the copies of Mr. Aker's pictures in Photo Era for September, 1917. Objects of farm and country side are caught under such skies, in such light, and occupy the picture space in such relations to each other that they all contribute to the beautiful result. Such beauty is not the dream nor the creation of the artist. The beauty of our common surroundings is just as real as the things that hide it because we permit them to do so. The search for this beauty will brighten our lives; and nothing makes us so alive to beauty as the effort to record it in a picture. All honor to the artist with the soul to find and reveal lovable human traits and character amid unfavorable conditions of life, happiness amid poverty, beauty in city streets, in crowded abodes of the poor, in smoking factories and grimy toilers. Such persons are artists, indeed. Their works inspire us with hope for humanity.

But our outings take us where beauty is not so hidden, where there is very little of ugliness to be dissipated before the beauty can be

seen, where the infinite mind in the work of creation is more manifest, away from man's work to the noble works of nature, to a presence where "meaner passions shrink and tremble and are still,"

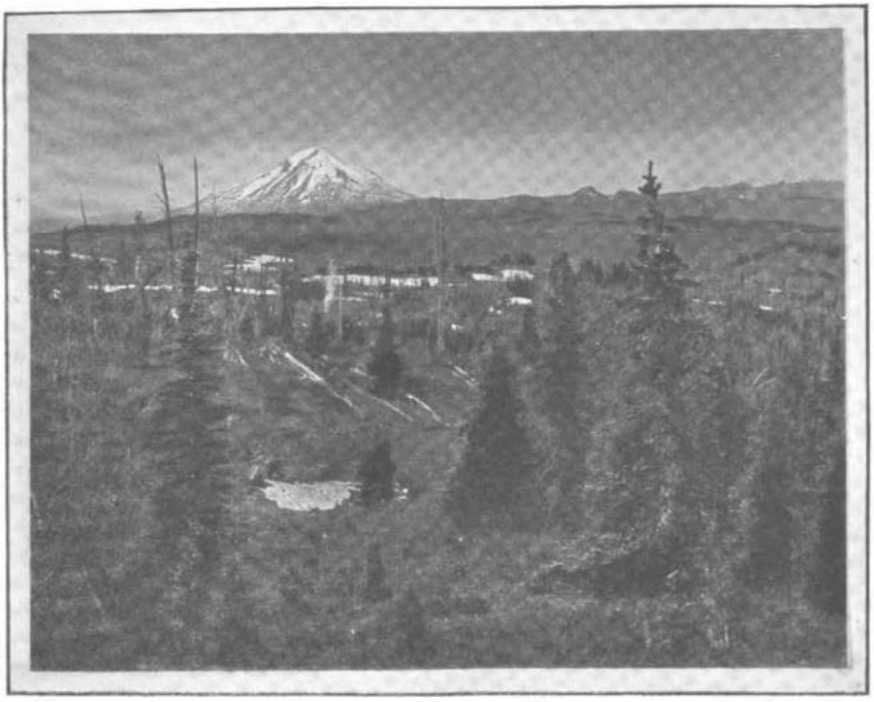
> "From the lowland and the mire,
> From the mist of earth desire,
> From the vain pursuit of pelf,
> From the attitude of self."

We do well to keep fresh in our minds the brightness and sanity of such scenes, and all that they have brought into our lives.

The conditions of the outing confine us to photography as the means of expressing our pictorial ideas. The photographer has no small task to place within the four corners of his plate the component parts of a charming view. The exposure of the plate may require but a fraction of a second, the route and the light afford unusual opportunities, yet a dozen exposures made with proper selection and the work necessary to attain positions where the subjects can be seen to the best advantage represents a hard day's work. It is likely to keep the photographer out all night, too.

For distant mountains and clouds appearing in contrast with a blue sky, and for many atmospheric effects, the lens must be capped with a ray filter, which is a glass ground very true and stained the required shade of yellow to darken the blueness of the sky and atmosphere. Blue is the brightest color to the photographic plate. To the eye blue is the darker and yellow the brightest. Without the ray filter the sky usually appears in the print as so much white paper and distant blue ranges of hills, snow-capped mountains, and fleecy white clouds are lost for want of contrast. The filter, because it retards the most actinic rays, increases the required time of exposure. Higher up, the sky appears more intensely blue, but at the same time it becomes darker, the sun's rays brighter and hotter, the shadows deeper and colder. As we ascend we get less illumination from the atmosphere itself and less protection from the direct rays of the sun. In photographing a nearby mountain scene against such a sky either a very light filter should be used or none at all. A mountain appearing at a distance of one hundred miles requires a filter retarding exposure fifteen to twenty times. A five to eight times filter is the best for all around purposes, and glacial scenes should always be photographed through the ray filter to preserve the delicate contrasts of their coloring.

While the emulsion is too sensitive to blue, it is not unless made so, sufficiently sensitive to greens, yellows, and reds. This is cured in the isochromatic plate by a tint giving it a rosy color. Isochromatic plates are more responsive than others to ray-filtered light and the greens marking the difference in the different kinds of trees and shrubs.



A. H. Denman

MOUNT ST. HELENS — Taken from the terraced slopes of Mount Adams. Illustrates use of dense day filter for distant mountains. Flat effect caused by front lighting and consequent lack of shadows.

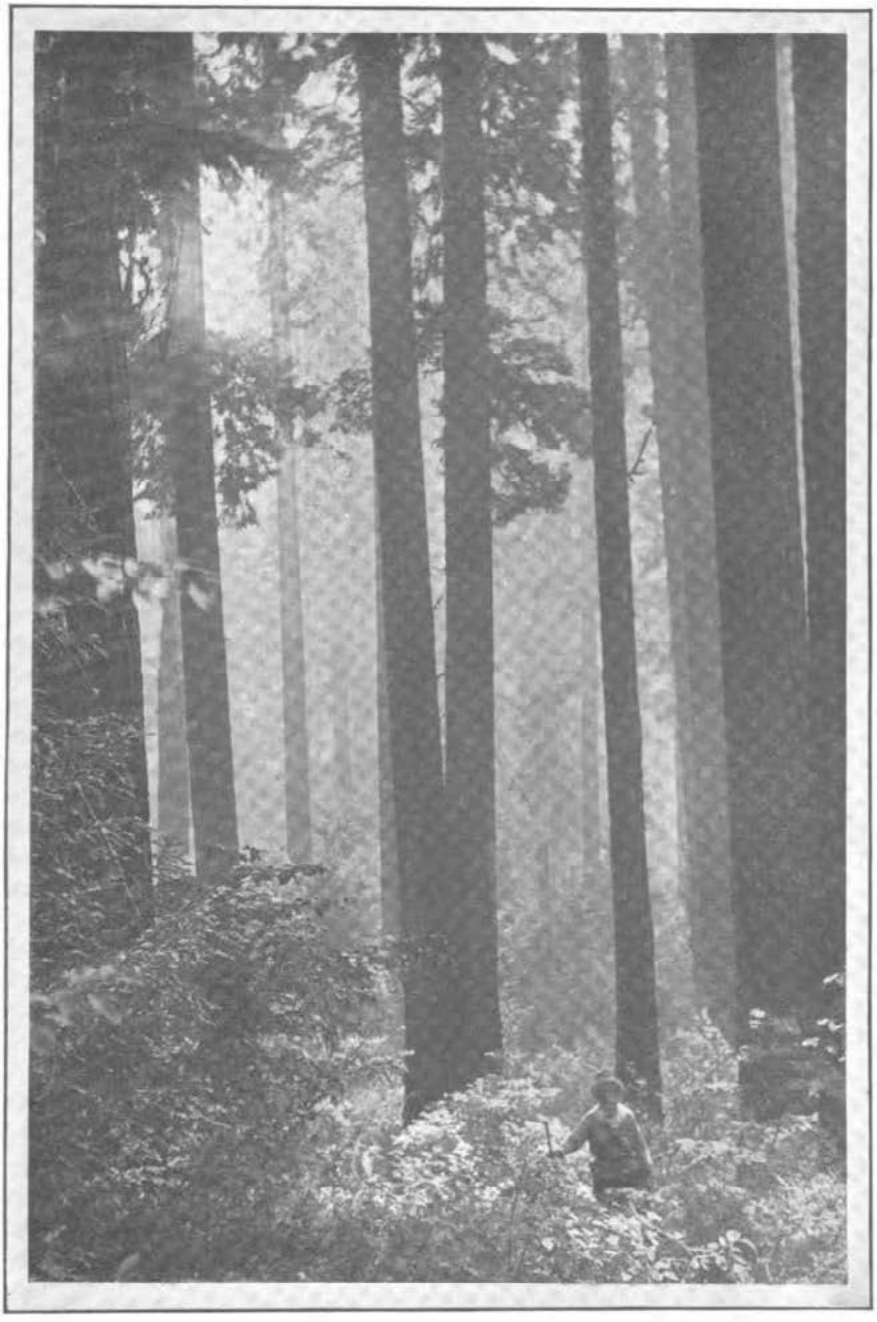
Objects near the camera, although more plainly seen, require very much more exposure than distant objects. For instance, when an object a mile away requires 1/30 second, one of the same character ten feet away would require a full second. The ray filter largely equalizes this difference by holding back the distance far more than it does the foreground. Expose for the shadows, let the high-lights take care of themselves. This rule is based on the fact that all photographic plates or films have much latitude. While a very rapid exposure may be sufficient for a strongly lighted object, it does not follow that the result will be any the worse for a much longer exposure. Within certain limits the bright objects appearing in the photograph are not in the least injured by exposure sufficient to bring out the details in shadows.

The diaphragm with its indicated stops attached to the lens has the effect of diminishing the light but such is not its purpose. The smaller the opening of the diaphragm, the more nearly are objects nearby and far away brought equally into focus. The most valued lenses are those that transmit the image accurately at the widest aperture. One loses the advantage of his valuable lens if he works

habitually at a small stop. Great pictorial advantage is often gained by having only one plane of the pictured scene in sharp focus and a slight diffusion in other planes, and sometimes a general diffusion over the whole picture for softness of effect. For instance, a group of flowers near the camera with a natural background should be focused at full aperture, then the lens carefully stopped to an aperture where the background, though still diffused, becomes clearly distinguishable, not a meaningless mass of unsightly spots. A small aperture would show both flowers and background in minute detail, which is wholly undesirable.

Remaining space suffices only to chart a few rocks. One viewing an attractive subject ignores many obtrusive objects. The lens disregards none of them; and unless we take notice and remove such intruders, the result is defacement as bad as blots or scratches. An accurate view finder is a necessity and should be habitually scrutinized to make sure that these rowdies are not occupying places of honor. The failure of a picture is often caused by our absorption in the principal object that attracts us, and we forget how much its setting has to do with the effect. If the subject is one of our great mountains, examine the sky space to be included above it in the picture. If too much sky is shown the appearance of immensity and grandeur is diminished. If, on the other hand, the summit is shown too near the top of the picture, the lifelike, outdoors effect of the noble object may be taken away and we deprive our gem of its most important setting. Very important it is to include properly, objects indicating our viewpoint, thus inviting others "to walk into the picture". The choice of objects for the foreground calls for all the skill of the artist and the picture is greatly affected by slight changes in the position of the camera or use of the rising front. The brightest and darkest spots of a picture should be reserved for the important places worthy of the attention they attract. Meaningless light or dark spots not only draw the attention away from the purpose but disappoint. The exposure required for a snowy mountain, not at great distance, viewed from an elevation of 4,000 to 5,000 feet with a five times filter covering the lens at stop sixteen with foreground and middle distance containing forest trees fairly well lighted, is from one and one-half to two seconds whether for film or medium isochromatic plate. If the summit is photographed only in connection with a snowy foreground or sea of clouds without any dark objects in the foreground, the exposure need not exceed 1/25 second.

The forest light is not only dimmed with shade, but its greens, greenish yellows, browns, and grays are the least actinic of all colors. The tree trunks should never appear black, and the camera back must be kept vertical, otherwise the trunks will appear inclined toward



A. H. Denman

ON A FOREST TRAIL The straight lines of tree trunks preserved without use of the swing back by placing the camera at an elevation above the tree bases.

the center line of the picture. The upper portions of the trees may be shown straight and true in a camera not equipped with a swing back, by selecting a viewpoint at an elevation above the tree bases, or by the rise of the lens board, or both. Under most favorable conditions the proper exposure for trees in our forests is not less than five seconds at stop eight (U. S.). Here is need for an exposure meter of the type that makes an actual test of the actinic power of the light and without which correct time of exposure can hardly be approximated.

What can be more important than the light in which we see things! This endeavor to see natural objects and persons (who often are not natural) in their best light is surely good for the soul. Having no control over the lighting of the landscape we must study the pictorial possibilities of all kinds of lighting, recognize and improve our opportunities. Very seldom is anything seen during the outing in its best lighting, and no adequate record can be obtained except by revisiting the scenes again and again. Equally important are the shades and shadows that go with the light. We can not get a good photograph of so much as a tombstone in a graveyard except on occasions when the light falls upon it at a proper angle to reveal its texture and lettering by their shadows. It is the shadows that block out the mountain spurs and ridges, round out their snowy domes, reveal the interesting surface of snow and glacier or the character of their rocks. Most prize-winning landscape photographs show long shadows, often falling toward the camera.

Having brought our readers to the subject of light, we leave them there to see and pursue their own way. On another outing with a better eye for pictures we hope to join them where light and beauty abound.

A. H. Denman

SUNSET IN
HAPPY VALLEY

Across the vast flower-carpeted expanse of Happy Valley the eye is ever drawn toward the sky-piercing summit of Mount Hood.

Frank A. Jacobs

PARADISE VALLEY IN MIDWINTER — New Year outing party of 1917 crossing the bridge over Paradise river, on their way to Sluiskin Falls.

WINTER MOUNTAINEERING

J. H. Weer

With most of us the thought of mountaineering brings visions of summer days spent in tramping and climbing in the higher regions over hills, ridges, cliffs, and glaciers, all more or less snow-covered. But what of the rigorous mid-winter season? Nature is then renewing the snow-fields, blanketing the wild flower fields at timber line, and laying up a store of snow high on the mountains to become in time the glaciers for mountain climbers who will follow years hence.

And so a visit to the mountains in winter gives us a little insight into the wonderful process going on up there which in due course produces the scenes of beauty and enjoyment, of recreation and inspiration, which we find in the summer months. Either season in the mountains is the more appreciated through acquaintance with conditions existing during the other seasons.

The last half dozen years have brought a growing realization and appreciation of the possibilities for sport, recreation, and study in and

about the mountains when winter makes them inaccessible for all but the hardy and venturesome. A visit to the higher levels, when fresh snow lies deep, calls for vigorous but exhilarating exertion, requires special but not elaborate equipment, and meets with conditions radically different from those met in ordinary mountaineering.

Probably no region is better than ours for winter mountaineering. Our climate even in the mountains is without extremely low temperature, except rarely, and there is enough variety in the physical features of the mountains of Washington to satisfy any taste. Clear days bring scenes of brilliancy which cannot be equalled in summer. The absolute clearness of the atmospere affords remarkably wide views, distant objects appearing surprisingly near. Under the light of a full moon snow peaks a hundred miles away are easily visible from an altitude of 8,000 feet, and nearby peaks can be photographed in remarkable detail with exposures of one to two minutes. Gorgeous heavens and illuminated peaks at sunrise and sunset are succeeded by starlit and moonlit scenes, sparkling with frost. To spend one cloudless hour in day time or night anywhere near timber line in the winter is to be enlisted forever as a winter mountain climber.

The writer's experiences having been chiefly in Rainier National Park, these observations apply principally to conditions there. However, at equal elevations, and amid similar structural characteristics, these conditions would be practically duplicated in any portion of this region.

In this article reference is made mostly to travel on snowshoes, rather than skis, the former being the equipment most easily adopted by beginners. The use of these requires no great skill, though at the outset the wearer finds them clumsy rather than intricate. Their chief difficulty is the weight which they represent for dragging over or through the snow at each step. Without them, or skis, travel in the mountains in winter is well-nigh impossible. As to skis, many of those who have mastered their use prefer them above snowshoes, and there is a steadily growing interest in them. Doubtless they will be in much more common use in a few years.

Ease of travel is governed chiefly by snow conditions. These change with great regularity with each change of weather and temperature, and generally from hour to hour as the day progresses. Following a fresh fall of snow, varying from a few inches to several feet (irrespective of snow previously accumulated), with temperature low, travel is hard on either level or steep trails. After being allowed to settle for a few days the snow is in good form for travel. A few hours of warm sunshine, followed by the almost nightly freeze, pro-

duces a crust. The strength of this crust gauges the ease or difficulty of snowshoeing thereon. If so thin that steps break it, penetrating into the soft snow beneath, travel is hard; if strong enough to bear one's weight with but a slight cracking or depression at each step it is ideal; if so hard that the feet, with or without snowshoes, make no impression, footing is difficult, the slopes are dangerous, and caution is necessary.

Contrary to common belief, rain sometimes falls during the winter at very high levels—not frequently, however, so far as known. On one occasion in Paradise Valley rain fell almost continuously during three days and nights. A clear day followed and an ascent to Camp Muir, 10,040 feet, showed that rain had fallen at that altitude, promptly freezing, and there were indications that it had extended at least 2,000 feet higher. The effect of rain, also of continuous thawing on warm days, is to make snowshoeing very heavy. When the snow, water-soaked by rain or thaw, has a very hard freeze, travel is easy without the aid of snowshoes, sometimes, however, requiring heel and sole guards against slipping.

Observations thus far indicate that usually, even when the air is comparatively calm at timber line and a little above, the climber must expect strong winds and cold on the ridges and fields, above, say, 7,000 feet. Atmospheric changes occur with extreme suddenness. The climber must be prepared to cope with these while advancing on his way, or returning, sometimes hastily, to shelter.

The freshness of the snow produces a dazzling brightness, particularly when the sun shines, that requires ample protection of the eyes by colored glasses. Exertion under these same conditions is often accompanied by uncomfortable warmth, though the temperature may be below freezing point. The scarcity of drinking water is, at times, a trial. Thirst being only aggravated by the consumption of snow, thirst-satisfying dried fruit should be carried.

Suitable equipment has much to do with the enjoyment of an outing in the snowy woods and hills. Footwear is unquestionably the most important item and therefore deserving of most attention. Moccasins meet with little favor in this region. Pacs—laced boots with light-weight rubber feet and leather uppers—are most preferred. There is a wide range of opinion concerning the various types of snowshoes, individual judgment governing. The fastenings by which snowshoes are attached to the feet are of great importance. The sandal type—laced toe piece with strap running back to heel—has been found most satisfactory when substantially made. Two to three pairs of hose should be worn (light ones next the feet and heavier

over these) to protect from cold and rubbing of sandals. A good supply of warm but not excessively heavy clothing should be worn, for otherwise when exertion ceases, even for a few minutes, the climber is liable to feel the cold. Alpenstocks (or ski-poles), grease paint, and cold cream are as essential in winter as in summer. Knapsacks or other articles to be carried should be kept to lowest minimum consistent with required comfort and safety, since greater effort is called for in winter than in summer travelling.

The upper levels, where trees are dwarfed and few, or entirely absent, are not alone in holding allurements, as many Mountaineers can testify. The dense woods, with well known trails buried, underbrush hidden from view, trees heavy laden, a silence awesome and impressive, are sources of delight and wonder.

Winter mountaineering is here to stay. This is proven by the loyalty of the comparatively few who have followed it long enough to test its attractions (and some there are who place them above the attractions of other seasons), and by the enthusiasm of those who are taking to it in increasing numbers each year. True it is that it requires effort and exertion sometimes wearisome, but where is the man or woman who begrudges a single heavy footstep taken in gratifying the desire to visit the mountains at the time of their greatest beauty and grandeur. The happy languid satisfaction in an evening around stove or fireplace after a strenuous day in the snow is a fitting counterpart of the joy of the outdoor camp fire in the milder months.

E. W. Harrison

SNOWSHOE TIME AT
SNOQUALMIE LODGE

HOW TO KNOW THE TREES

HUGO WINKENWERDER

NATURE offers a wealth of pleasure to the lover of the great out-of-doors in the many objects both animate and inanimate that abound everywhere. This pleasure is increased many fold to those who can recognize these objects and understand their several relationships. To him who sees and understands, every turn of the trail offers something new and interesting. In this great Northwest the trees and forests are not among the least of Nature's handiwork.

It is true that this region does not possess the wealth of species found in the eastern forests, but what it lacks in species it makes up in size, for where else in the entire world are the forests more wonderful in the density of their growth or the majesty of their development. Trees eight to ten feet in diameter, towering 250 feet in height, are not uncommon, and it is not at all rare to find more than 150,000 feet of merchantable timber to the acre.

To be able to recognize the trees and know them by their correct names is the first step toward their appreciation, and the further we get into the subject the greater the pleasure it affords. To run across a rare species which one is able to recognize gives one all the pleasure of meeting a dear old friend.

However, to be able to recognize the trees and to name them is only the first step toward knowing them. To know them one must study their life-habits, the sizes they attain, their rate of growth, their special likes and dislikes for different soils, their requirements for moisture and light, what other trees they naturally associate with, their influences for good and evil upon their associates, and the uses to which they may be put. Every forest is a living organism in and of itself, just like a community of people with an individuality and character all its own. Each tree plays its part in the community life. When we recognize these things the study becomes to a certain degree really fascinating.

Washington and Oregon have a total of only about seventy species of trees, of which forty-four belong to the broad-leaved deciduous group and twenty-six to the evergreen, cone-bearing class. The former are ordinarily known as hardwoods and the latter as conifers. The yew, though not cone-bearing, may for practical purposes be included in this group. All the conifers can also be divided into two general groups: (1) Those with needle leaves, to which the pines, larches, spruce, hemlock, true firs, the Douglas fir, the redwood, and

yew belong; (2) those with small scale-like or awl-shaped leaves, including the incense cedar, the western red or shingle cedar, the Alaska and Port Orford cedars (together forming the genus of true cedars), and the junipers. Of this last group the junipers are the only ones that have awl-shaped leaves and both scale-like and awl-shaped leaves are always present. The fruit of the junipers is a cone but is modified in such a way as to appear berry-like.

Practically all of the conifers can be distinguished by the leaf and twig characters and as the leaves are present the year around in all except the larches, these characters are available for study at all times. If now we take the first, or needle-leaved group, they can be divided into pairs in the order named. Each pair has some one very definite character that will distinguish it from all the others, and then again there are other very simple characters to distinguish the two members of each pair from each other. Thus, pines and larches always bear their needles in bundles, the pines two to five and the larches many in a bundle. The spruces and hemlocks bear their individual needles on little elevated leaf-cushions that remain on the twigs after the leaves fall, but the spruce needles are stiff. angular and sharp pointed, while those of the hemlock are flat and with rounded tips. The true firs and the Douglas fir, instead of bearing their needles on cushions, come off practically flush from the surface of the twig, and when they fall leave a flat round scar, but in the case of the true firs the scar is prominently indented into the surface of the twig, whereas the Douglas fir scar is flush, except for a slight elevation on the edge opposite the tip of the twig. In the yew and the redwood the needles are attached by a strap-like prolongation which is fastened to the twig for some distance. At the point of junction between the needle and the twig the yew has a star-like constriction which is absent in the redwood.

In the cedar group all have their ultimate branchlets flattened with the exception of the junipers, where they are square or round on the branches that bear scale leaves. This, together with the presence of some awl-shaped leaves and the berry-like fruit, will always distinguish the juniper from all the others. The ultimate branches, with the leaves on them, are quite similar in all of the others, but careful examination will show that in the incense cedar the two leaves which are folded around the edges of the twig have long bases and they do not meet from opposite sides unless it is at the very bottom of the scales. In the western red cedar these two leaves meet in a point about the middle of the scales, and in the true cedars they meet in a short line.

In the hardwood or broad-leaved trees it will be impossible in a short article of this kind to do more than indicate, with examples, the methods to pursue in their study. Botanists usually depend upon the

leaves and flowers. However, as these are not present on the trees throughout the year, they are available for study only during certain seasons. For this reason the buds, leaf-scars, and other twig characters are much better. The first thing to look for is whether the arrangement of the parts—buds, leaf-scars and branches—is in opposite pairs or whether these organs alternate around the branch (i. e., are spirally arranged). Thus, for example, we have in this region only four native genera with the opposite arrangement, namely, the ashes, maples, dogwoods, and elderberry. The elderberry differs from all the others because of its extremely large triangular to horse-shoe shaped leaf scars and the very large soft pitch found in the center of the twig. The others can readily be distinguished from one another, first by the angle the twigs make with the branch on which they are situated. In the ash the short stiff twigs stand out practically at right angles, in the maple at an angle of 45 degrees, and in the dogwood there are whorls of straight branches coming off from the terminal shoots but further back on the lateral branches numerous small twigs can be seen all curving upward more or less regularly. The leaf scars and buds also are distinctive. In the dogwood the leaf scars always meet from opposite sides around the twig, making a small V pointing away from the tip. In the maple they also meet from opposite sides but make a V pointing toward the tip of the twig. In the ash, however, they rarely meet from opposite sides. In the examination of all of these characters it is always well to keep toward the tips of the twigs and to examine a number of specimens.

Another very useful character is to be found in the so-called "bundle scars." They are represented by small dots within the leaf scars and mark the broken ends of small water tubes that extend from the twigs into the leaves. In the dogwood there are always three of these. In the broad-leaved maple there are usually five (sometimes more) and they are very prominent, whereas in the vine maple always three, so that this feature will distinguish these two species of maple from each other. In the ash, the bundle scars are very small and numerous and arranged in a curved bend open toward the tip end but in general following the outline of the shield-shaped leaf scar. The number and arrangement of the bundle scars are useful in the identification of nearly all of the hardwoods.

Of even greater importance, however, than the bundle scars are the buds. Thus, for example, cascara has its buds naked, i. e., the little leaves in the bud are not covered by any bud scales. The willows on the other hand always have one single scale enfolding the entire bud; in the dogwood there are two long pointed scales nearly covering the bud from opposite sides, and in the alder there are three bud scales closely united at their edges so as to just enclose the bud completely.

All of the other hardwoods of this region have buds with numerous over-lapping scales. The shape, color, and covering of the bud is also important. Alder has large reddish-brown buds that are club-shaped and distinctly stalked; in the hazel and black haw the buds are more or less globular, but in the former they are grayish in color and both buds and twigs are covered with fine hairs, whereas in the latter the buds and twigs are reddish and smooth and shiny. Usually there is only one bud at the tip of a twig, but in the oak and the chinquapin and sometimes also in the cherries there are more than one, though in the cherries it is more common to have several buds situated together just above the same leaf scar, and this is not true in any other trees of this region. The cherries, as also the poplars, the birches, and the California laurel, can be distinguished by the characteristic taste of the buds and twigs.

The pitch in the twigs of the trees of this region is usually solid, white or light greenish in color, and circular in cross-sectional outline, but in the alder it resembles the ace of clubs, turns a deep purple when exposed to the air, in the oak it is a five-pronged star, in the hazel it is from a light yellow to a deep brown in color. and in the hackberry it is not solid, but interrupted so as to form a series of little plates that can be seen by cutting through the twig longitudinally. Other characters that are useful are the presence or absence of hairs or resin in buds and twigs, the color of the twigs, the presence of prominent dots, or lenticels, as in the bark of the birches, thorns, and so on.

It is also possible to learn to recognize the different trees as seen from some considerable distance by means of the general shape of the crown, the way in which the branches come off, and the color. In western red cedar, for example, all except the uppermost branches come off with a long downward sweep and then turn upward at the ends, like the horns of a Texas steer. In both the spruces and the true firs, especially in the young trees, the branches come out stiff in more or less equidistant whorls. Hemlock has a very fine spray of branches all through the crown and is of a deep bluish cast, the spruces in addition to the shelf-like arrangement of the branches have a light blue cast, whereas in the pines the spray is coarse and the cast light blue or yellowish, depending upon whether it is a white or yellow pine.

Among the hardwoods there are other similar features which may be used in the same way, and then too every tree has a characteristic bark, but space forbids going into further detail at this time. A little study with a good manual such as Sudworth's "Trees of the Pacific Slope" and the author's "Keys to the Trees of Oregon and Washington" will soon enable anyone interested in the study of trees to recognize them all, and it will open the way for the more interesting study of their life habits, distribution, and associations.

WITH THE BRITISH COLUMBIA MOUNTAINEERING CLUB

IN THE MOUNT GARIBALDI DISTRICT

H. B. HINMAN

IT was the pleasure and privilege of my wife and myself to attend the outing of the British Columbia Mountaineering Club last August, in the Mount Garabaldi district, about fifty miles north of Vancouver, B. C. Leaving Vancouver by boat for the head of picturesque Howe Sound, we disembarked at Squamish. Thence we traveled thirty miles by the P. G. & E. Railway to Stony Creek, passing en route through the wonderful canyon of the Cheakamus River. From there the trail to the camp in Black Tusk Meadows was nearly all the work of the Club. The distance was about nine miles, with a very steep climb of over 4,000 feet. Leaving the railway at 3:00 p. m., it was long after dark before camp was reached, and the big fire and hot supper awaiting us were very welcome.

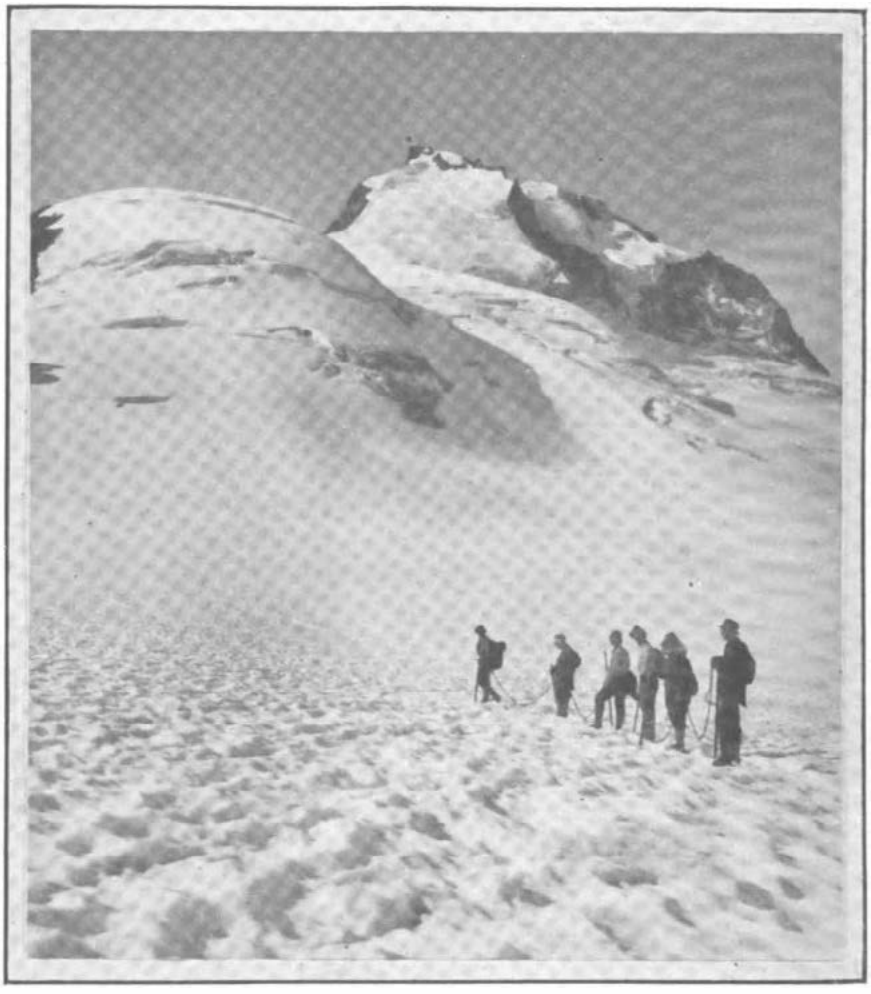
Camp was pitched in a beautiful meadow (5,100 feet), two miles long, with two fine streams flowing through it. Above towered the Black Tusk, (6,375 feet), a cone of black basalt, the core of an extinct volcano. Sloping up more gently from the meadows, were the lesser elevations of West and East Bluffs, and Panorama Ridge. Across the little divide to the north, were Helmet peak, lake and glacier, the Cinder Cone, Mimulus and Black Tusk lakes and Empetrum peak. Eight hundred feet below camp lay Lake Garabaldi, about four miles long, completely surrounded by peaks, except to the west, its color changing with the light from emerald green to turquoise blue.

From the summit of Panorama Ridge, a wonderful view unfolded. To the north, nameless peaks without end; to the southwest, Castle Towers, Copper Peak, and The Sphinx, with their glaciers; to the south Sentinel Peak, Table Mountain, Red Mountain, and towering above all Mount Garabaldi. To the west the Tantalus Range, with its two hundred miles of glacier-clad peaks.

Everywhere on the slopes were masses of flowers in a profusion and riot of color, surpassing even anything I have seen on Mount Rainier. Dr. Davidson of the University of British Columbia has found two hundred eighty species of plants in the immediate vicinity.

The rocks are largely volcanic, basalt and andesite, although some limestone exists, and the summits of a few of the peaks are granite. Mount Garabaldi, and at least three other mountains near-by, are extinct volcanoes.

The party carried in materials for a boat, which they built on Lake Garabaldi, large enough to carry seven people with packs. This made possible, in one day, trips to the fine peaks on the opposite shore



H. B. Hinman

MOUNT GARABALDI — Mount Garabaldi, fifty miles north of Vancouver, B. C., is the highest mountain in the vicinity. While a little less than 9,000 feet high, it is considerably more difficult of ascent than any of the high mountains of Washington.

formerly occupying three days. Each day two trips were planned; one on the north and one on the south side of the lake.

Mount Garabaldi is the dominating peak of the region, (aneroid readings 8,700—9,000 feet). It carries six large glaciers on its slopes, some of them being several miles long. In many places they present fine ice-falls and crevasses. The ascent is usually made from the south side, but has been made from the north, by dropping over a saddle below the summit, and swinging around to the south. I am informed, however, that until last summer the ascent of the steep north face had never been made. Two ascents were made from our camp,

the first by a party of three women and three men; the second with which I climbed a week later with two women and eight men.

Crossing the lake the night before, we camped half a mile from the foot of Sentinel glacier. Reaching the nose of the glacier a little before six the next morning we roped in two parties (it is a hard and fast rule with the Club never to go on a glacier unless roped). Ascending to a saddle overlooking the Warren glacier, we dropped a few hundred feet to it, and from there our course was entirely over this, the largest glacier on the mountain. Part way up we encountered some large crevasses, calling for skillful work on the part of the leader.

About 400 feet below the arete leading to the summit, a rotten snow bridge was crossed, one man breaking through, but being held by the rope. From this on, the slopes were the steepest I have ever seen a party negotiate, and to add to the pleasure of the occasion a tremendous crevasse yawned directly beneath, running clear across the face of the snow field. The arete was practically a knife edge of rotten lava, dropping off almost perpendicularly hundreds of feet on each side. Following this, the summit was reached without difficulty. The view was superb, although somewhat obscured by shifting clouds.

The return was uneventful, although great care had to be exercised descending the steep slope. On this portion the party faced the slope, only one person moving at a time. Permanent camp was reached about 8:00 p. m. after a row across the lake and the steep 800-foot climb up from the landing, with packs.

The two weeks were all too short. The entire party were uniformly kind and considerate, and did their utmost to give us the best possible good time. The Club are entitled to much credit for their successful outing, as they were working under a great disadvantage, most of their best men being at the front or having already laid down their lives for their country. Too much praise cannot be given Mr. Tom Fyles, on whom the chief responsibility of the climbs rested. Never have I seen a more indefatigable and efficient worker, a more genial personality, a more skillful and daring climber, yet careful and considerate of his party.

A TRIP INTO MOUNT ROBSON PARK

LULIE NETTLETON

IT must have been an alluring prospect, indeed, that could tempt a loyal Mountaineer from such an outing as had been planned for the Club during the summer of 1917. However, a proposed expedition into Mount Robson Park in the northeastern part of British Columbia, was a temptation not to be resisted. Consequently, the first week in August found Mrs. Parsons, of California, and myself aboard the splendid Grand Trunk steamer, Prince Rupert, on the first lap of our journey.

The approach to this park is delightful, including as it does, a charming water trip of three days through the lovely scenery that makes the coast of British Columbia so fascinating, and a two days' train trip from Prince Rupert following the Skeena and Fraser rivers up into the grandeur of forest and snow-capped mountain peaks.

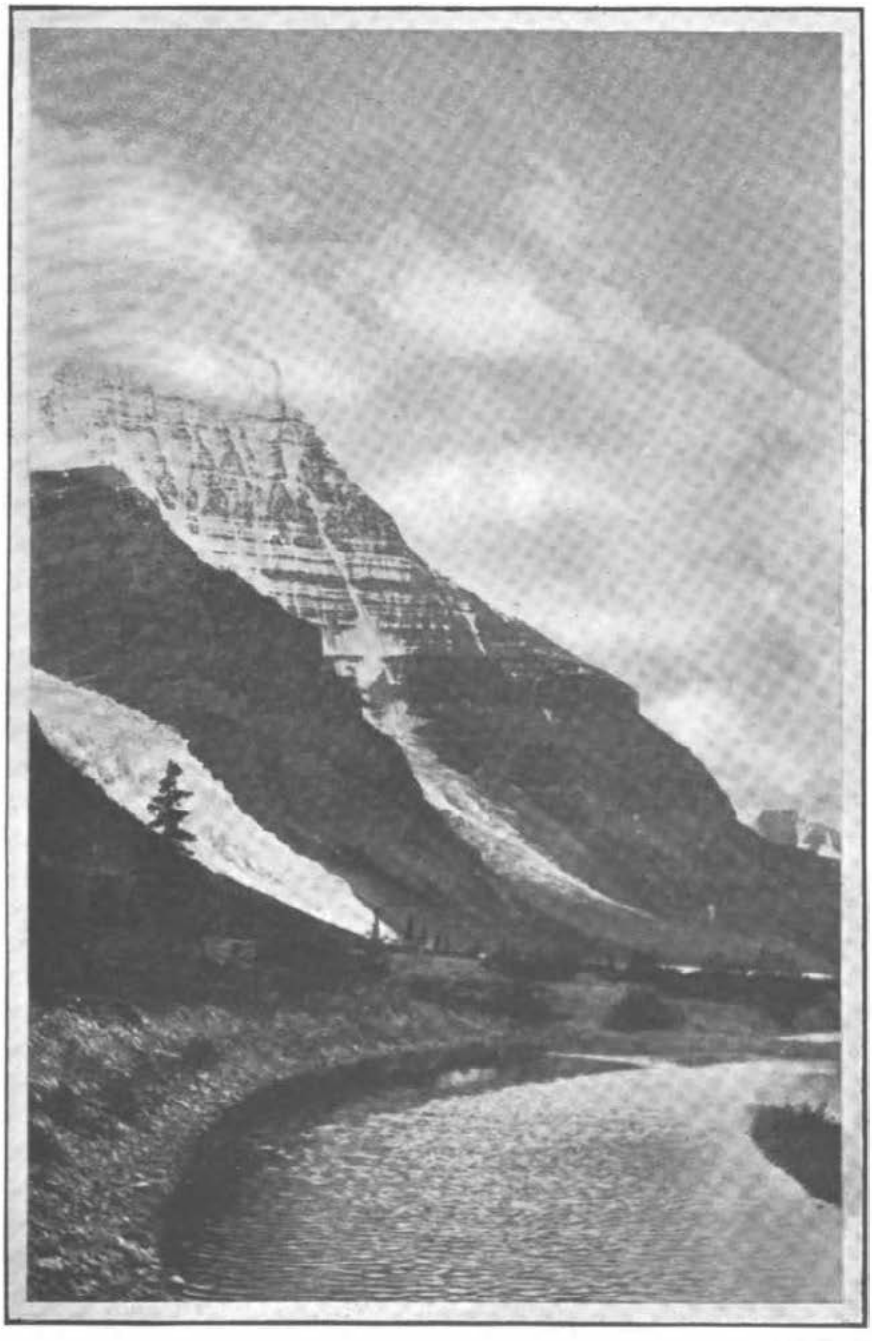
At Robson Station we met Donald Phillips, otherwise known as "Curly" who in his one capable person represented our outing committee, head packer, cook and companion. He escorted us to his cabin about a mile from the station and from there we made our start.

Donald, much to our dismay, said that we must ride horses. We protested in vain, assured him of our ability to walk and of our long walking trips of previous years but—"The glacial streams are variable and you will have to ride," said Donald, and having been trained to consider that there is no appeal from the laws of an outing committee, we bowed our heads to what we considered a grievous situation and rode—and in the end enjoyed it.

First we followed the Grand Forks River past Kinney Lake, into the Valley of a Thousand Falls. This is truly a place of unusual beauty and infinite variety. On either side rise great walls and rugged cliffs, here draped in dainty waterfalls, and there worn and torn by greater cataracts, Emperor Falls being one of the mightiest. There is an atmosphere of romance and mystery about this charming valley. It is not hard to imagine that some ancient Egyptian artist has fashioned its rocks into their queer forms or that one is with Sinbad the Sailor in one of his valleys of mystery.

At the end of this valley lie the blue waters of Berg Lake where icebergs are continually being cast from the Tumbling Glacier. There is a roaring and groaning from the glacier audible before the lake itself is reached.

But valley and lake alike were forgotten when rounding a turn into Robson Pass, we beheld Mount Robson itself in its full glory,



Lulie Nettleton

MOUNT ROBSON FROM ROBSON PASS

The lofty summit of Mount Robson (13,068 feet) is often lost in the clouds. Its precipitous slopes and frequent avalanches make its ascent almost impossible. Berg Lake, lying at its base, is fed by icebergs from Tumbling Glacier.

austere, majestic, dominating the whole scene. We could well believe Donald's story of his ascent. Mr. Kinney and Donald succeeded in making the summit only after a gruelling trip of two days and two nights on the mountain, and eleven and a half hours clinging on its precipitous sides, with frequent avalanches to add to the difficulty.

So Mount Robson stood and defied us, challenged us, dared us, but we did not accept the challenge—then. On the shoulder of Mount Robson is The Helmet which looks hardly less difficult than Robson itself. On the flank of Robson stands Rearguard which is a rocky pile of wonderful symmetry. Circling behind Robson comes the mighty sweep of Robson Glacier six miles long, much seamed and crevassed, with its upper stretches broken with seracs of exceptional size and coloring. Above the glacier rises the Lynx with its snowfield and glacier, and Ptarmigan Mount which completes the circle of peaks that guard Robson Glacier. On the opposite side of the pass rise Mount Mumm, Mount Mugger and Mount Ermine and a phalanx of peaks down the valley with White Horn rising above them all.

We explored to our heart's content, traversed Robson Glacier, climbed Ptarmigan Peak, which, by the way, is an easy ascent but affords a magnificent view. The steep snowfield of Mount Resplendent back of Mount Robson was a most desirable climb but as we wished to push as far on into the park as possible, we decided to forego the ascent.

Our independent cavalcade left Robson Pass early on a lovely August afternoon for a seven mile trip to Moose Pass. Since Smoky Creek Valley is as charming in its way as the Valley of a Thousand Falls, it was a memorable afternoon riding along between the great mountain walls, the blue sky above, listening to Donald's tales of hunting. For variety, we punctuated the seven mile journey with numerous stream crossings. Fording is a queer sensation. From the middle of a whirling stream the gravelly banks speed past one, while the horse seems merely churning the water, then suddenly, when all seems lost, he climbs out.

Leaving Smoky Creek we followed Calumet Creek arriving at Moose Pass (6,700 feet) just at dusk. We pitched camp among the beds of asters, the largest of the kind I had ever seen in the mountains, valerian, anemone seed pods and wind blown trees.

The night on Moose Pass was a delightful one. We had a campfire in the teepee and while we watched the flames, our guide told us tales of the wild things thereabouts—how millions of caribou migrate each year to the "Barrens" and in March are driven back by myriads of flies; how the animals come in cycles, first, the rabbits disappear, then the lynx and larger animals; tales of the pursuit and capture of

a certain white grizzly. Then when it was time to turn in, as a grand finale, the whole sky was illuminated with a magnificent display of northern lights.

From the pass we made the ascent of Mount Pam, a peak less than ten thousand feet in height and of no difficulty as a climb but one of the finest mountain view points that can be imagined. As far as the eye could reach in every direction were peaks upon peaks. A great majority had never known the foot of man and many, very many, are still unnamed. One longed for months to spend in this region so attractive to an Alpinist. Once more, even from a greater distance, Robson loomed and as Donald remarked, "All the mountains lean toward Robson."

Breaking camp, we set out for a twenty mile journey for Bess Pass—"the greatest grizzly country you can find," according to Donald. We retraced our steps down Calumet Creek and on down Smoky; then up Glacier Creek we made a steep climb through a natural lane of trees to the pass. We spoke in whispers and kept a sharp lookout for grizzlies, but none appeared although we found where the ground had been very recently torn up in a great beast's search for the roots of the avalanche lilies, which, by the way, are considered grizzly delicacies.

Mount Bess is a most attractive mountain. Viewed from the creek below, it looks like an interesting rock climb but from Bess Pass the approach is very good going, almost entirely on snow. But again we had to remind ourselves that there was not time to ascend the mountain and contented ourselves by a sunrise trip to the shoulder of Mount Bess. Once more we feasted our eyes on vistas of unexplored and unnamed peaks and ranges and selected a certain region for more exploration next year. We notified our guide that we would consider "All rights reserved" for us in that particular region in the future. His offer to place grizzly bear traps at every approach to guard it for us was heartily accepted.

Then breaking camp we begun our long twenty-four mile journey back to Robson Pass. Another day of fourteen miles and we were back at Robson Station, making plans to return as soon as possible to the great country of which we had had a glimpse.

BACK-PACKING AND WEEK-END CLIMBING

JOSEPH T. HAZARD

THERE are many trails and mountains in western Washington that are, as yet, little known to the public or even to the many of the Mountaineers. The big snow peaks and the paths leading to them have been featured for a generation while the dim and broken trails, the innumerable rock pinnacles surrounding us have been neglected.

In most of our mountain literature one of the three main motives for exploring the wilds has been left sadly in the discard. We have been told repeatedly about marvels of scenery; the scientists have brought us the flowers, the animals, and the earth's crust; but in fiction alone has there been an adequate presentation of the lure of strenuous effort, of the charm of hard trail work.

The inception of Snoqualmie Lodge marked a change. In increasing numbers our members have scrambled up new creek beds, over slippery heather slopes, through hanging rock chimneys to new aeries. Many are frankly interested in first ascents, in speed records, in endurance tests. The day has come when the entire membership of the Club should taste the salty effort of back-packing and of week-end climbing.

We are in a region above all others favored with uncounted short hard trips. From Bellingham we reach easily the jagged Cascades where they lift to meet the Selkirks; Everett offers the regions of Index and Monte Cristo; Seattle and Tacoma are surrounded by the Olympics and the main range of the Cascades. A few hours in almost any direction will throw us against a wilderness demanding the arts and the backbone of the pioneer.

From the many interesting trips of the season we have chosen a typical few. They tell the 1917 story of a new and increasing activity of The Mountaineers. They point the way to an even more active 1918.

The several Mountaineers who have contributed articles to this account are experts on one or more of the regions surrounding us. They will be glad to give detailed directions to anyone who wishes to duplicate their trips. You are invited to get in touch with them through The Mountaineers. Their experience is yours for the asking.

¶ For years Dr. J. N. Bowman has pioneered in back-packing. One of his favorite regions is that of the Olympic peninsula. There follows the account of his 1917 trip.

ACROSS FOUR PASSES IN THE OLYMPICS

In 1916 our party tried to cross the Olympics from Port Angeles to Lake Cushman; we landed at Lake Quinault instead. This year we

solved the problem of the preceding summer but reversed the trip.

Professors Wilson, Osborn, and Goodrich, my wife and myself formed the party of this season—Goodrich taking the place of Sexsmith and Kool of last year.

The route as a whole which we followed is one that had never been taken so far as we can learn though part of the trail has been traveled often. We reached Lake Cushman from Seattle by boat and stage. The trail up the Skokomish River is well marked even beyond the ranger's station. From the old miner's cabin at Nine Stream it is but three miles to the first pass, all decidedly up-hill. At Elk Camp in the pass we were awakened at midnight by wolf howls not many yards away; this was our first wild animal of this trip and the first wolf that we have met in any of the trips. From the first pass we dropped into the most beautiful avalanche lily basin that we had ever seen, and through it the old trail dropped down the mountain side to the Duckabush River. This part of the old horse trail from Cushman to Heart Lake is somewhat difficult to follow; but up the Duckabush toward its headwaters and up the stream draining Marmot Lake the trail is well marked.

A large plateau occupies the north side of the upper Duckabush; in it was Marmot Lake nestling in heather and lilies at the base of the cliffs dividing the river from the Quinault. A mile away was Heart Lake and its small tributary lakes all just beginning to come out from under the winter's snow. All of us were of the opinion that this basin with its lakes, views of the Duckabush valley, the mountains and glaciers is by all odds the most beautiful basin that we had seen in the Olympics.

Our second pass divided the Duckabush from the Quinault. Out of the park-like basin of this river we climbed to the unknown pass that should lead us somehow into the Elwha valley. This was new and untrodden country, and the expectancy and uncertainty we experienced now form some of the most pleasant memories of the trip. A herd of fifty-nine elk, together with scouting trips relieved the tedium of the nervous strain of uncertainty. A new pass, the third, was found; the elk have been using it for generations. We blazed a tree on the crest and labeled it "Wilson Pass". The valley into which it led proved to be the Godkin. The finding of the third pass formed the climax of the trip; the remainder of the hike lost much of its interest. After a rest at Letha Creek we ascended the new trail up the Hayes River; from its excellence, its monotony and eternal even grade, we were glad to escape over Hayden Pass, our fourth, into the Dosewallips valley, following its trail down to Brinnon with boat connections with Seattle.

The trip covered fifteen days; the distance covered was about

ninety-five miles with some fifteen miles extra for the two scouts. The commissary for the first part of the trip was about eighteen pounds each. At Letha, Goodrich left for the draft; the commissary cached by Hume was therefore redistributed and the weight per person was above that of the first part of the trip. J. N. BOWMAN.

¶ Several parties have already packed around the Mountain. Others will follow for the trip will always be new. This year's account is full of practical directions and suggestions.

A HIGH LINE BACK-PACKING TRIP AROUND MOUNT RAINIER

Back-packing over the ridges and across the glaciers along the mountain goat trail around Mount Rainier is a stunt that offers many attractions to the strenuous hiker. He will encounter hard work in plenty but the two weeks necessary to complete the circuit will be replete with everchanging and indescribably beautiful views of the Mountain, close-ups of nearly all its glaciers, birdseye views of its circle of parks, and panoramas of distant peaks and ranges; truly, a more than ample reward for the energy expended.

The route, as taken by R. E. Leber, H. McL. Myers and the writer in August, 1917, started and ended at Fairfax for two reasons: the commissary for the second week could be picked up at Paradise; and the cost of transportation was lower. Incidentally the total cost of the outing was extremely moderate.

Camps were made at Fairfax, Carbon Glacier cabin, Glacier Basin, Summerland, Williwakus Park, Paradise, Indian Henry's, Marmot Heights (near Glacier Island), The Colonnades, Sunset Park, Spray Park, and Grindstone cabin. All camps were either in parks or in timber.

The longest hike took nearly twelve hours. The highest altitude reached was 9,000 feet on the Kautz glacier. The maximum packing weights were forty pounds each. All three extremes occurred on the hike from Paradise to Indian Henry's, which made this day the hardest of the outing. Had it been possible to pick up commissary at Indian Henry's instead of Paradise, the pack weights would have been at minimum, instead of maximum and the travelling that day would have been much easier and faster.

Glacier travelling was never dangerous. Weather and snow conditions were almost ideal. Due to the lateness of the season the higher trails were snow-covered and the pestiferous insects were there in large and enthusiastic crowds.

The actual travelling time was nine and one-half days which allowed one-third of the allotted two weeks to be spent in resting. If the rest days are properly interspersed, say at Summerland, Paradise, Indian Henry's, and Spray Park, one can make the trip without undue fatigue.

Similar circuits of Rainier have been made by Flett, Weer, Barnes and others, whose records we found in cairns along the route.

BEN C. MOOERS.

¶ There is a growing charm for the Mountaineers in winter trails. Fortunately we have deep snows without severe cold. The snowshoe is taking its place with the hobbed boot and the alpenstock as a minimum essential of our outfit. The following account tells of the first snowshoe trip to the north side of Rainier. It will lead to others like it.

SNOWSHOE TRIP TO NORTH SIDE OF MOUNT RAINIER

Had our plans been carried to completion the title of this sketch would have been "Snowshoe Trip, Enumclaw to Glacier Basin and Longmire Springs via East Side of Mount Rainier." Luckily for us, perhaps, we can attribute our failure to carry out this project to most unfavorable weather conditions. However, it is my hope some day to accomplish this task; for like all mountaineering problems there is an increasing fascination about an unaccomplished aim that grows upon one with each succeeding failure to reach the desired goal. Such a trip as was planned well up on the sides of the great Mountain, made a strong appeal to us because of its novelty, its promise of strenuosity and the opportunity it afforded to see the north and east sides of the Mountain in winter garb.

So it was that on the morning of March 18, 1917, Chas. Hazlehurst and the writer set out from Enumclaw by auto in a snowstorm that accompanied us on our whole journey. Sixteen and one-half miles out we abandoned our car at noon and shouldered our packs, which by careful elimination of all unnecessary weight we kept down to forty-eight pounds apiece. This included nine pounds of rations each, a three and one-half pound ax (a necessity on such a trip), tent, kodak, and other usual impedimenta. Our commissary allowed one and a half pounds per day per man and proved to be ample.

The first night we occupied a road gang's camp twenty-four miles from Enumclaw. It snowed all night. The next day we had a taste of what we were to get throughout the trip. The snow was soft and wet so that our snowshoes sank from ten to fourteen inches with every step and brought up each time a load of heavy wet snow. That night we made the park rangers' cabin on the White River fifteen miles nearer our goal.

The third day we did another strenuous twelve miles and reached Starbo's camp in Glacier Basin (5,935 feet elevation) fifty-one miles from Enumclaw. A howling wind was blowing that almost completely checked our progress. The sumptuous new mine hotel was indeed welcome and we were glad that our shelter tent need not be put to the test of withstanding the storm that raged all that night and the following day. The equinoctial storm was full upon us. We saw absolutely nothing of our surroundings except a fleeting glimpse of Bur-

rough's Mountain through a rift in the clouds with the sunset glow upon it.

After a day's rest we made the return journey in three days. As we reached the lower altitudes the snow turned into rain—which did not improve matters.

Although we did not accomplish our purpose and enjoyed no scenery, the experience was well worth the effort put into it, for there was the physical benefit derived and the satisfaction of having done our best. The season selected was not from choice but because of necessity. April or May would usually offer great chances of good weather upon which the success of the undertaking necessarily depends.

C. G. MORRISON.

¶ The Tacoma Mountaineers are ever active. Their trips never fail; through careful planning, the start and the return are on schedule. The following account of one of these trips is written in helpful detail.

MOUNT WOW—A KNAPSACK TRIP

The Tacoma Mountaineers have enjoyed the privilege of conducting several short outings in the vicinity of Mount Rainier. We have carried our own packs on these trips, although on several occasions we have been able to provide transportation for the commissary.

The Mount Wow trip was entirely a knapsack trip. It was outlined in the bulletin as usual, and, while waiting for the members of the party to sign up, we were able to go ahead with most of our preliminary arrangements. The commissary was planned for units of fifteen, twenty, thirty, or forty people. This schedule easily gave us the amount needed after the party signed up.

Our start was made on the Tacoma Eastern Railway, and while we were still on the train, the commissary was divided among the men, packs were adjusted, and everything made ready for the trail. Then followed the bus ride, during which we ate our lunch. This gave us the entire afternoon for our packing. We followed the Tahoma Creek trail for two miles making an elevation of two hundred feet. Then the real climb began, 2,000 feet with our packs. At first we followed a zigzag trail, and, when this gave out, made our way through low undergrowth. Camp was made near Lake Allen, and the regular routine committee work took care of the cooking, serving, and dishwashing.

A very early start was made the next morning, and the party easily reached the summit, 1,500 feet above camp. After a good long rest, giving us ample time to enjoy the view and take pictures, we returned to camp, picked up our packs, and jogged down the mountain side. We ate lunch by a mountain stream, and took our time down the trail to the road, where the busses were waiting for us and our packs.

CRISSIE CAMERON.

¶ One of the unique trips of the Everett Mountaineers was scheduled for September. It called for hard work for a night and the day after. The short account which follows gives a fine flavor of the unusual.

A NIGHT AND DAY HIKE TO IDA PASS

A trip to Ida Pass (3,500 feet) above Monte Cristo had long lured us, and there seemed but one way to accomplish it. So Saturday, September 16, we took the Monte Cristo car to Barlow Pass. Then, with bugs, and without beds, we started over the beautiful trail that follows the Sauk and the Elliot for eight miles to Goat Lake. It proved a delightful four hours work and we arrived at the lake about one-thirty in the morning. A roaring fire and refreshments followed, and later a bit of drowsiness conquered some of the party.

Soon after daylight, with a morning bath in freshly-dewed huckleberry, we started on the one route over the pass, a long ledge to the right of the ravine, then over snowfields to the top. The view from there was much too wonderful for the time we could give it. By sliding down waterfalls, swinging from hemlock branches, and coasting over heather or mud, we finally reached the depot, just in time to gather our carefully arranged commissary and to carry it home. "Hard, but well worth while" was the universal comment.

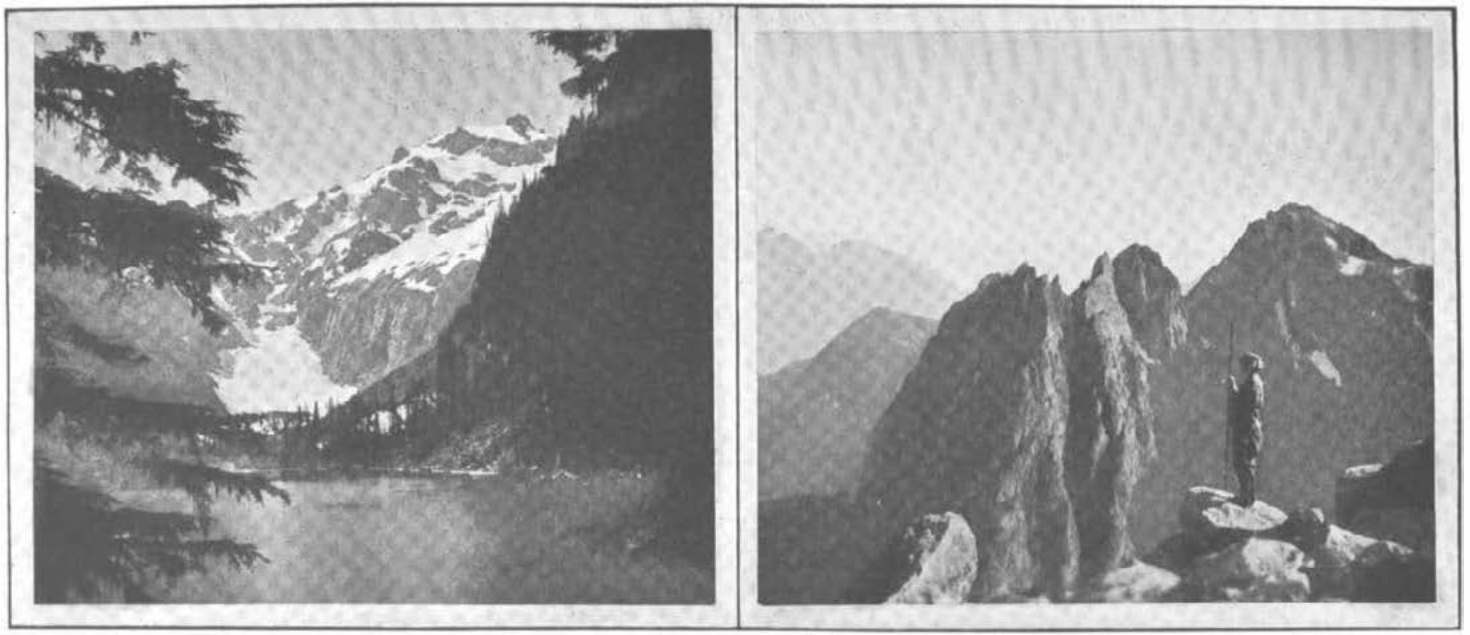
MABEL McBAIN.

¶ There are still many new trails in the Olympics. Mr. Pugsley's account of a trip up the Dosewallips and down the Elwha gives another impression of the possibilities of this fascinating region. His course carried him near Mount Constance where some Mountaineer in the near future will "do his bit" as a pioneer.

UP THE DOSEWALLIPS AND DOWN THE ELWHA

Lured by that wild mountain spirit which calls to all real Mountaineers, Mrs. Pugsley and myself set forth August 5, 1917, for a two-weeks outing in the Olympic Mountains. Crossing the Sound to Bremerton, we took stage to Seabeck and thence across Hood Canal to Brinnon. Disdaining a packtrain and other elaborate equipment, we rolled our carefully selected and weighed, but neither meatless nor wheatless provisions and other necessities, in our sleeping bags, wrapped these with a silk duck fly, put our packs on our backs, and hit the trail up the Dosewallips River.

The first day's tramp was along a dusty road where the rivulets of perspiration on our bodies and the weight of our packs made every wayside log welcome. Sidestepping to Idlewild or Rocky Brook falls for lunch, we camped at 4:30 in the woods beyond Corrigenda Ranger Station, having traveled about six miles. Next morning, after a breakfast of fish donated by a passing angler, we found the cool, shady trail a great relief from the dusty road, but the hill of grief encountered at the close of the day will long be remembered. The following days we toiled steadily upward along the well-graded and



H. B. Hinman

VIEWS TAKEN ON EVERETT OUTINGS

Goat Lake (elevation 8,154 feet), the source of Elliott Creek, flowing into the South Fork of the Sauk, lies eight and one-half miles by an easy trail from Barlow Pass, on the Hartford and Eastern Railway. Foggy Mountain is shown at the upper end of the lake. This lake will furnish one of the camp sites for the 1918 outing.
Mount Index from the summit of Mount Persis. The ascent of Mount Index is made by way of Anderson Creek Basin, which intervenes between the two mountains, thence to the connecting saddle and from there to the summit by the south side of the ridge.

splendidly constructed new trail, the deep silence of the forests about us broken only by the roar of the river in its box canyon far below and by the occasional chatter of a bird or squirrel overhead. Sometimes an opening afforded a glimpse of high, rocky pinnacles or of foaming torrent and waterfalls. The fourth day brought us into the meadows and parks, carpeted by flowers and surrounded with snowy peaks. Huckleberries were added to the lunch menu, and whistling marmots greeted us. Here one might camp for a week and have plenty of climbs and sidetrips to the near-by parks and peaks, including Mount Claywood and Mount Anderson with its hanging glaciers.

Crossing Hayden Pass above a high, steep shale slope, the highest of the three passes out of the Dosewallips, we camped a short distance down the Hayes, the most scenic of all our camps. The new trail from the pass to the Elwha was covered in an afternoon. Surviving an attack of yellow jackets, we turned up stream over the trail of the Mountaineers in 1913. The camp at Letha Creek, the log jams, Chicago Camp, the sign of the turtle, and the Elwha basin and snow-finger, all had a familiar look. Even many of the same gray-whiskered, bloodthirsty mosquitoes of 1913, with all their progeny, were there. Having reached our goal, Dodwell-Rixon Pass, and gazed upon beautiful Mount Olympus, we directed our steps down the Elwha and in due time arrived at Hume's Ranch. After a day and a half with its hospitable and good-natured proprietor, we caught the stage to Port Angeles and boarded the boat for Seattle.

FRANK G. PUGSLEY.

FROM SNOQUALMIE PASS TO MONTE CRISTO AFOOT

GRACE HOWARD

THE first official knapsack trip of The Mountaineers extending over a period of two weeks was participated in by five members, Wilfrid Harrison, leader, Olive Rand, Mrs. C. M. Bixby, Grace and Henry Howard. On Saturday night, July 14, we left for Rockdale via the Milwaukee; arriving at 10:10 p. m., we shouldered our packs and traveled up the old track to the Snow Lake trail. Here a hurried camp was made for the rest of the night.

The next day we followed the Snow Lake trail past Snow Lake, 4,100 feet elevation, down to Rock Creek, a tributary to the Middle Fork of the Snoqualmie, a distance of seven miles. Monday morning we took a side strip to Goldmeyer Hot Springs. These springs are sulphur dioxide, very hot and strong. The party returned to the

H. W. Playter

SNOW LAKE AND
MOUNT THOMPSON

The trip to Snow Lake at the foot of Chair Peak is a favorite with visitors at Snoqualmie Lodge.

Mount Thompson, lying some miles north of Snoqualmie Pass, with its forbidding tooth long defied climbers, but during the past season was conquered by Mountaineers.

Rock Creek camp and on to Taylor's Ranch, having covered thirteen miles for the day. Here we found our first food cache. The next day was perhaps the hardest of the whole trip; our packs were heavy and the trail steep, a climb of 2,000 feet in nine and a quarter miles being

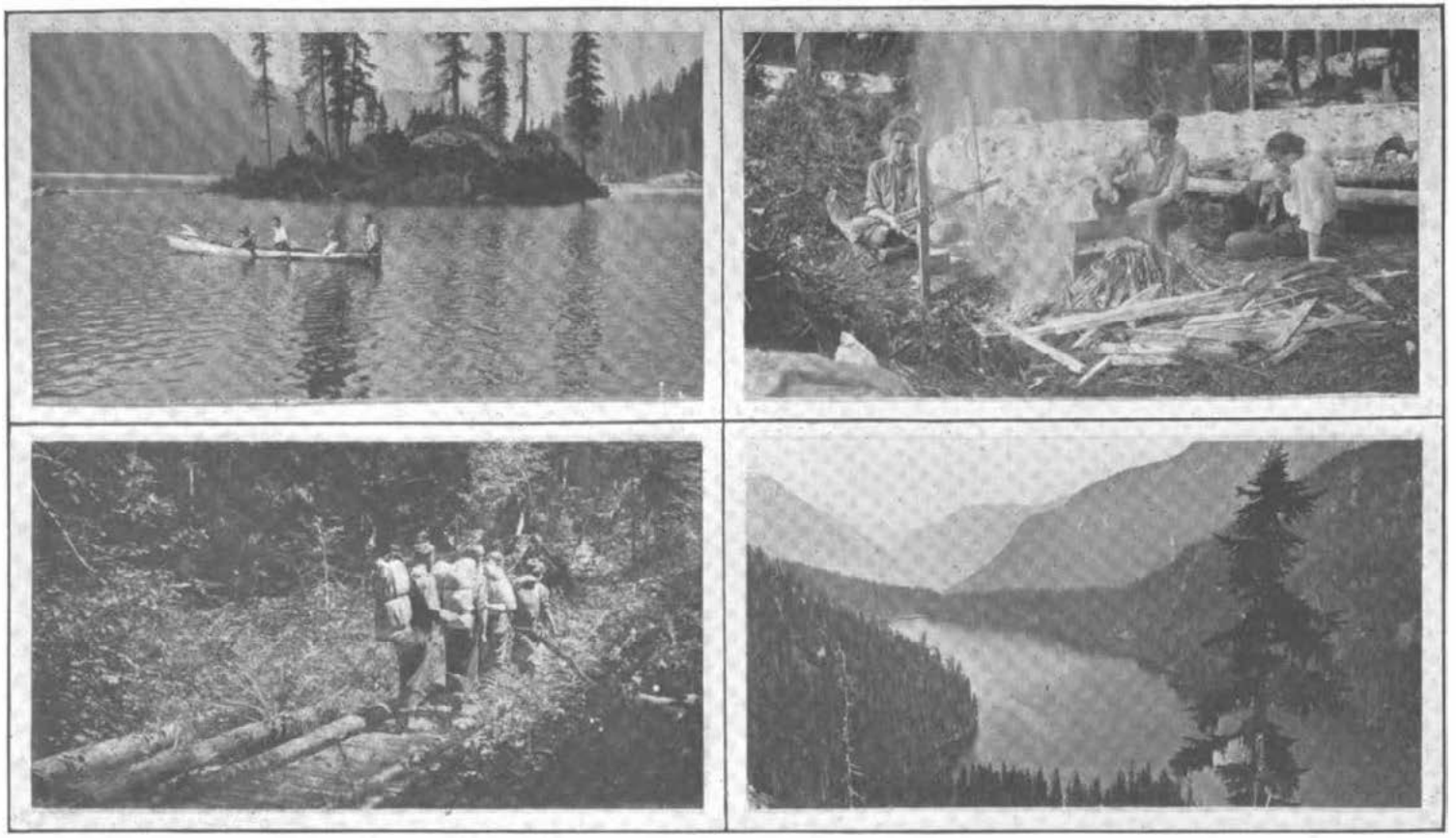
necessary to reach Lake Snoqualmie. Here we found winter conditions while the night before summer had prevailed. The next day we crossed our second snow pass, elevation 3,700 feet, and on down to Lake Dorothy, a short journey of two and three-quarter miles, passing Deer and Bear lakes en route. We found warmer conditions here, and a good camping spot at the south end of the lake, so decided to rest a day or two.

Thursday we spent fishing on the lake—lots of fun but no fish. We explored the lake in a dugout made five years before by the forestry men. As we were all Mountaineers we felt we must do some climbing and Friday, July 20, we made a very pleasant and uneventful ascent of Big Snow, elevation 6,700 feet. Saturday morning, much to our regret, we had to leave Lake Dorothy with her beautiful shores and lovely islands and continue on our way. We loaded all our belongings in the dugout and paddled to the lower end of the lake, a distance of more than two miles.

Saturday night brought us, after a fourteen-mile journey, to what we called our hobo camp on the banks of the Skykomish River. This was our first touch of civilization and nearly proved disastrous, as one of our party was mistaken for an I. W. W., said to be a perfect type, in fact, from the rear view. Our second cache was at Skykomish, therefore dinner was an elaborate affair consisting of canned salmon, fresh potatoes, bread and butter, tea, with canned pineapple for dessert; and for breakfast such luxuries as scrambled eggs. On the Skykomish we were at an elevation of 930 feet, the lowest reached on the trip. The next day was a lazy one, spent in a trip to the Money Creek Soda Springs and mine. That night we went to Index by train and started next morning on our second week's outing. The personnel of our crowd was changed slightly, Mrs. Bixby taking the place of Olive Rand.

We had come down the South Fork of the Skykomish, now we traveled up the North to Galena, making camp ten miles from Index on Silver Creek. The next day, Tuesday, we started to climb again and after traveling five miles reached an elevation of 3,200 feet at the Good Hope mine, where the night was spent. Wednesday morning, after visiting the mine, we climbed the zigzags to Silver Lake which was almost entirely frozen over, then on over Poodle Dog Pass, elevation 4,500 feet, and down to the town of Monte Cristo. Monte didn't appear attractive to us, so we kept on down the track for half a mile finding a good camping place on the South Fork of the Sauk, after having made but three and one-half miles.

Thursday, with no packs to bother us, we made a side trip into Glacier Basin, visiting the Boston American mines on the way. The weather had been perfect, but just as we were preparing to turn in a



KNAPSACKING The joy of travelling without packs; at the close of a perfect day; off on the trail; beautiful Lake Dorothy. *E. W. Harrison*

shower came up; fortunately it stopped before morning and caused no great discomfort. Our next day's journey was down the railroad to Barlow Pass and into the Stilaguamish valley. Low hanging clouds cut off all views of the peaks, but with the hope of good weather we turned up Sunrise trail toward Headlee Pass and camped that night about two miles up the trail on the South Fork of the Stilaguamish, thus making eleven miles for the day. Here we spent a very wet night and would advise future knapsackers to have more adequate rain protection. Saturday, our last day, we walked eight and one-half miles to Silverton where we took the train, and thus ended our two weeks in the open.

We had come from Snoqualmie Pass on foot, carrying all our worldly goods, over Snow Lake, Snoqualmie Lake, and Poodle Dog passes, down to Monte, traveling up and down the intervening river valleys, a distance of one hundred and nine miles, on first-class trails all the way. A great variety of scenery was enjoyed. In a single day climatic conditions ranged from torrid heat to frigid cold.

The average pack carried by the women of the party was twenty-two pounds, by the men thirty-five. We all used pack boards. A light dunnage bag for holding the pack was found very useful on trail and in camp. We carried but five days' rations at any one time, having four food caches, which made the packing easy. The average distance between camps was eight miles, the longest fourteen. Needless to say, the personal outfit was cut down as low as possible, no extras except underwear and socks; bug nets were found useful.

Our general outfit consisted of a small medicine kit and only the very necessary cooking utensils, a reflector, an axe, pot hooks, food bags, and twine for tying cross-pieces to uprights, which we found a great improvement over forked sticks. We can not praise the reflector too much; it cooked us many good batches of johnny cake and biscuits, in fact, so good that we never had any left from dinner baking for breakfast as our schedule called for. We would almost say that a party of four needs an eighteen instead of a sixteen inch reflector.

The commissary amounted to about two pounds per day per person; for some parties this might be cut down. It is an advantage to have the commissary made up to suit the special tastes of the party, if a small one. A menu was made out giving the weight of each article of food to be used for each meal; this was followed carefully and found to be a most excellent scheme.

The reason for the choice of this route, aside from scenic beauty, was the ease with which food caches could be made. We believe this, together with a very well planned commissary and the fact that we did not attempt to do too much, accounts for our very successful trip and fine vacation.

The entire expense of the two weeks for each person was $16.35, divided as follows: Commissary, $10.38; packing, 75c; railroad fare, $4.25; telegrams and telephone, 52c; cooking outfit, 20c; hotel, 25c. The Snoqualmie, Skykomish, and Glacier Peak quadrangles were uesd.

The members of this outing are proud to have paved the way for future knapsack trips and feel we have proved beyond a doubt that such a trip can be a real pleasure and not just hard work. We sincerely hope a summer knapsack trip of at least two weeks' duration may become an annual event of The Mountaineers.

COMMISSARY FOR KNAPSACK TRIPS

The following commissary lists furnished by Mr. H. W. Playter have been carefully worked out, tested, and found satisfactory. They are printed with the hope that they will prove reliable models for other ambitious knapsackers.

Provisions used by four people for two days, back-packing from Rockdale to Snow Lake:

1 pound cheese	¼ pound baking powder
½ pound rice	¼ pound coffee
1 pound prunes	1 dozen eggs
½ pound butter	1 loaf bread (pumper-nickel)
½ pound bacon	2½ pounds ham
2 pounds flour	4 squares Maggi soup
½ pound apricots	2 squares Oxo
1¼ pounds sugar	1 can milk

A total of 14 pounds or 1¾ pounds per person per day.

Provisions used by two people on a seven days' back-packing trip around Mount Rainier, moving camp every day:

3 pounds bacon	2 pounds apricots
1½ pounds cheese	2 pounds prunes
1¾ pounds sugar	¼ pound baking powder
1½ pounds rice	12 squares Maggi soup
4 pounds flour	6 squares Oxo

¼ pound salt

A total of 16 pounds or 1 1/7 pounds per person per day.

Provisions for three men seven days back-packing on Mount Baker, moving camp every day:

4 pounds bacon	½ pound baking powder
3 pounds prunes	¼ pound tea
4 pounds sugar	1 pound chocolate (stick)
2¼ pounds rice	1 pound nuts (assorted)
6 pounds flour	10 squares Maggi soup
3 pounds apricots	10 squares Oxo
2½ pounds cheese	1 box Grant's crackers

¼ pound salt

A total of 30 pounds or 1 3/7 pounds per person per day.

A minimum weight was used by Mr. and Mrs. H. B. Bennett on a 17 days' trip, October 9 to 25, 1916, back-packing from Bear Gap to Goat Rocks, Mount Adams and Glenwood:

2½ pounds Maggi soup sticks	3 pounds raisins
4 pounds Olympic pancake flour	1½ pounds walnuts
1 pound cornmeal	1½ pounds butter
4 pounds hardtack	2¾ pounds sugar
2 pounds Grant's crackers	2 pounds chocolate
4 pounds bacon	1 pound coffee
2½ pounds apricots	½ pound salt

2 pounds cheese

A total of 34 pounds or 1 pound per day per person.

The cooking utensils carried were in each instance a knife, fork, spoon, tin-cup and plate apiece, one extra spoon, one or two frying pans, one small cake pan, one quart pail and one quart-and-a-half pail.

Sugar and flour were always carried in water-proof sacks. Rice was carried in small sacks. Some advocate carrying all commissary in large water-proof cloth bags.

Mr. Harry McL. Myers furnishes lists in a different form. The following menus used by three men for two weeks' back-packing on Mount Rainier make up a commissary weighing slightly over 1½ pounds per man per day:

Breakfast

Corn meal mush, or	Prunes, 6 ounces
Cream of Wheat, or	Bacon, 4 ounces
Cracked wheat, 6 ounces, or	Grant's crackers, 6 pieces
Prepared pancake flour, 9 ounces	

Lunch

Nut meats, 2½ ounces	Chocolate, 3 ounces
Raisins, 6 ounces	Cheese, 6 ounces

Grant's crackers, 6 pieces

Dinner

Maggi soup, 2 cubes	Apricots, 6 ounces
Boiled rice or spaghetti, 11 ounces	Grant's crackers, 6 pieces
Bacon, 4 ounces	Tea

Assorted evaporated vegetables every other day, 4 ounces

Besides this, 8 ounces of white sugar, 2 ounces of brown sugar (for mush) and 1½ ounces of salt per day were allowed, but no coffee, butter nor milk.

Mr. Myers writes: "It was found very convenient to have all the articles packed by rations, that is, each 6 ounces of corn meal in a paper sack, 4 ounces of bacon sliced and wrapped in waxed paper, etc. Individual lunches were put up in paper bags and three of these in a larger bag for one day. All of this is work in preparation but it saves time in camp and assures one that the grub is going to hold out to the end.

"The item in the list which will probably call forth most criticism is that of Grant's crackers. Pilot bread has a following, as also knackebrod, but the objection to the first is that it breaks easily and to the second that it does not pack so compactly as Grant's. Some of us there are who bake bread and biscuits on the trail and the result probably justifies the labor and time involved, but when one arrives in camp at the end of an eight to ten hour day of hard hiking he may be satisfied with hardtack if it saves labor."

AT RHODODENDRON TIME

At Rhododendron time,
The violets first awaken
In wilderness of green;
Young tender ferns are shaken
From dusky rolls to screen
The nooks where twin-flowers climb.
Strong tides begin their surging—
Red tides of heart desire—
A something in me urging
To build a friendship fire
At Rhododendron time.

At Rhododendron time,
The dogwood stars are glowing
In emerald forest skies,
And elfin trumpets, blowing,
Proclaim the old surprise
Of dawn, as flower-bells climb.
What joy! The same glad story:
When days, as wingéd hours,
Bring Kitsap Lodge this glory
Of sunrise in the flowers,
At Rhododendron time.

EDMOND S. MEANY.

Dedicated to The Mountaineers,
21 June, 1917.

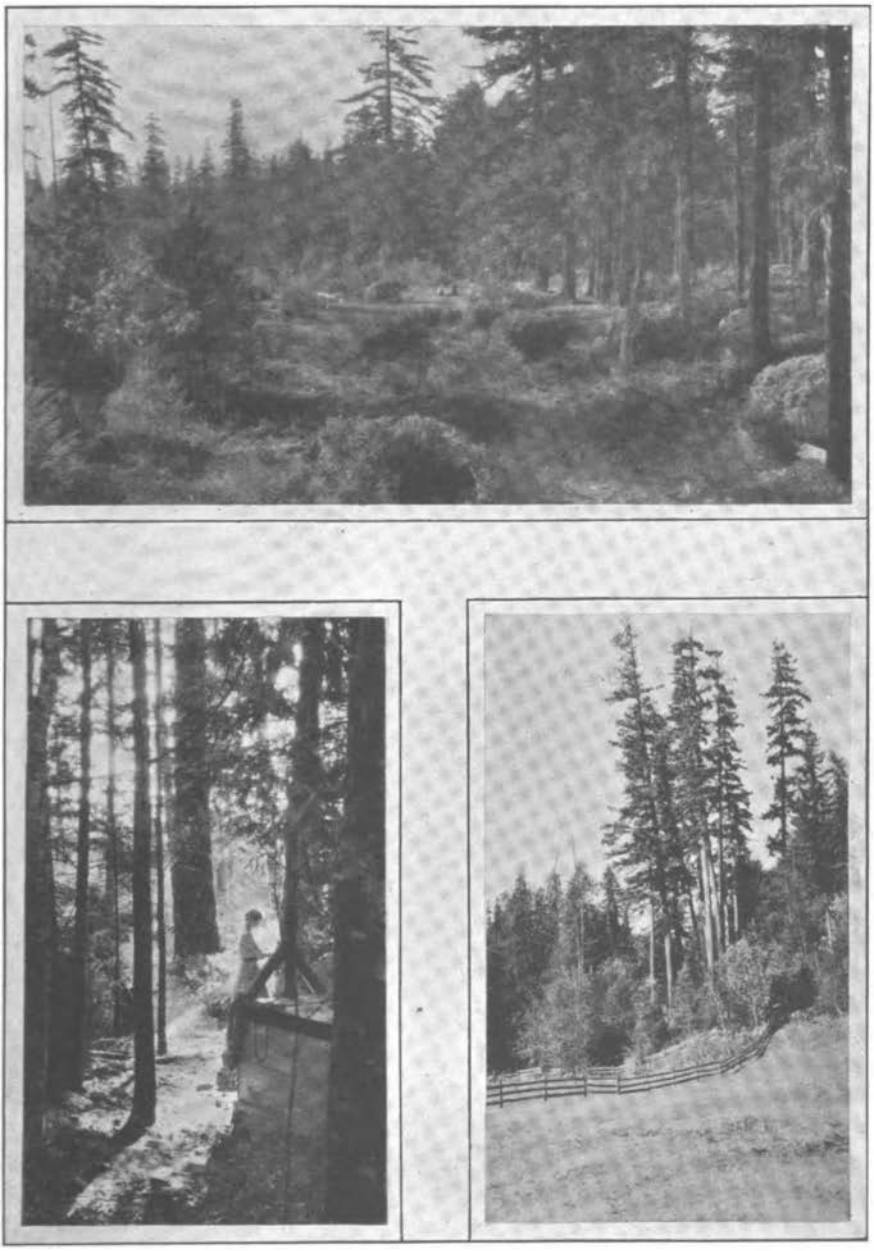
THE KITSAP LODGE

ARTHUR L. LOVELESS

WHEN we think of the Kitsap Lodge, those of us who love it, we do not call to mind the weather-beaten, decrepit relic of some early settler's losing fight to conquer the stony soil, which stands in unabashed and unlovely nakedness by the edge of the forest, staring across the little clearing. Instead we conjure up a picture of a habitation nestling among the second growth of the plateau above the valley, guarded by the tall firs, and lulled to sleep by the music of their voices as they nod and whisper to each other. This dream is as yet unrealized, but the hope of its fulfillment makes the problems of decaying timbers and sagging corners of the present log house, of wells which are empty, or else too much inhabited, and how to build a $75.00 fireplace for $15.00 seem mere trifles. And when they get too difficult—the problems—we go down to Hidden Ranch and listen to "Fiddle and I" and forget our troubles. And as we toil up the long incline to our own property, stopping often for breath and a backward look at that most restful of all spots, Peaceful Valley, we go back to work with renewed energy and enthusiasm.

For a building which will suitably house us, is, of course, a thing we have constantly in mind. Until that plan becomes a reality the present log house can be made to serve, though its timbers are rapidly rotting away. What form the future Lodge will take, or even its exact site, has not been fully determined, although a building with living and cooking accommodations only, with individual sleeping quarters some distance away, has been discussed. Such an arrangement, while it would permit the night owls to keep the echoes awake all night, would also permit the early birds to get their beauty sleep, and go out searching for the worm as near daylight as they wished, without any heated discussion the next day as to proper hours for retiring and rising.

A considerable amount of permanent improvement to the property has been completed during the year. The land has been surveyed by R. H. McKee, the old corners located, and the boundary lines laid out. The fire trails, which define these lines, and serve as a means to fight possible fires, are also under way. A few hours' work at cutting some of the stubborn growth of underbrush which forms the thickets about the property is really necessary to make one properly appreciate the joys of a workless day at the Lodge.



T. D. Everts

SCENES ABOUT KITSAP LODGE

The upper picture shows a vista into the series of little natural parks most favored as the site of the new Kitsap Lodge. A well seen in the lower left hand picture has been dug in a clump of trees near the proposed location of the Lodge. At the right is a group of tall trees at the southeast corner of the property, the largest on the tract.

Since an adequate water supply is a pre-requisite to any future building, a well has been dug near the future site of the Lodge, under the direction of Edward Triol, which it is hoped will furnish sufficient water for all purposes. It is located in a clearing in the center of a little cluster of cedars, which has long been christened "The Chapel," from the dim seclusion of which one looks out, as from a room, on the level plateau and across the valley to Baldy.

On Helping Hand Day in the Spring, much work was done on the Bennett trail from Bolton's to the Lodge. This new avenue of approach to the Lodge property, up the gentle incline of the gulch, through the tangled undergrowth of the forest, forms a pleasing contrast to the open road over burned off land, through Duesler's, though it does not equal in charm the old trail to Hidden Ranch along the banks of the stream, among the giant cedars.

While the work done so far has been mainly confined to the Lodge property, once this has been properly developed, there are several useful trails which can be opened up to render the vicinity of the Lodge more accessible, and furnish objectives for hikes for those so inclined. One such trail has already been cut out, that around Kitsap Lake, which was made by Irving Clark and Jack Tusler early in the Spring. It would be improved by a little more work upon it. One to Baldy and return by a different route, another from Kitsap Lake to Lost Creek, and still another from Hidden Ranch to Wildcat Lake offer possibilities for strenuous work.

A number of scheduled outings were held during the year which were well attended. The rain, which beat a tattoo upon the dinner plates at the Rhododendron outing, served to raise rather than dampen the spirits of the crowd. During the Spring and Summer nearly every Sunday saw a small party enjoying the Lodge or its environs, and if hay mows proved often more enticing sleeping quarters than the ground, who shall say if they were not often well earned luxuries.

The green depths of the woods furnished a perfect background for the performance of Robin Hood which was held on the morning of the Rhododendron walk at different points along the trail, actors and audience moving from point to point as the scenes changed. The gay costumes of the performers lent an agreeable touch of color to the monotoned woods, whose staid trees had doubtless never witnessed such a gladsome frolic as took place in the shade of their drooping branches. There are endless possibilities in performances of this character, and it would seem desirable to give vent to the play spirit of the Mountaineers through more of such channels.

The full moon and crisp air were the one touch needed to evoke the spirit of Hallowe'en, which brought in its train headless horsemen,

ghosts and goblins, and various elfish pranks on the Hallowe'en outing in October.

No account of Kitsap Lodge would be complete without some reference to our neighbors on the hill and in the valley, whose warm hospitality, and friendly advice and assistance add so much to the attractiveness of the place, and make one realize what true neighborliness means. Indeed, without them, Kitsap Lodge would lose half its charm.

LOCAL WALKS

BEN C. MOOERS

FOR more than ten years local walks have been one of the principal activities of The Mountaineers. At least every other Sunday throughout the year, except during July and August, a crowd of men and women spends the day, rain or shine, walking in the open. The observing hiker gets an intimate knowledge of the geography of the Puget Sound region. The Seattle walks during the past year covered practically all the territory surrounding Seattle on both sides of the Sound and of Lake Washington, while week-end outings embraced climbs of different peaks of the Cascades. Included in this territory is every variety of forest and mountain scenery. The walks follow unfrequented trails in the primeval forest; along old skid-roads; now through dense, dark timber where the ground is carpeted with moss and sword ferns; then across the logged-off open spaces and burns; along the high bluffs bordering the Sound, from which are caught picturesque glimpses of the waters below and the snow-clad mountains beyond; down deep ravines and past waterfalls where the maidenhair luxuriates; across turbulent mountain streams on log or stepping stones; or still higher, perhaps, to the summit of some mighty peak where one has all nature at his feet. These and more than these are sights that greet the hiker on local walks.

The walks afford an excellent opportunity for those who like to commune, not only with nature, but with their fellow men as well. For the social is not the least important side of mountaineering. There is an admirable spirit of democracy and camaraderie that adds greatly to the enjoyment of the walks. It is a cosmopolitan crowd that attends. Team work is the long suit of The Mountaineers. If there is work to be done there is no lack of volunteers.

Each branch of the Club has its own series of walks conducted in a systematic manner and according to definite rules by a Local Walks Committee at each place. Every month the committee schedules certain walks which have been previously scouted by the committee itself

or by some other Mountaineer. Members are encouraged to scout and lead walks, preferably into new country and as far as possible along trails or old roads. But civilization is so encroaching on the forest near the cities that it will become necessary in future years to go farther and farther afield before reaching the favored trails and old roads in the timber.

Ordinary walks average about ten miles in length, although occasionally long walks are put on as a special attraction for strenuous hikers. These vary from seventeen to thirty-three miles in length.

Although the leader actually leads the walk, at least one member of the Walks Committee always attends and takes general charge of the walk. The leader is given a badge as a mark of distinction and a whistle with which to signal for starts and stops. A rear guard is delegated to see that no one loses his way. This is a very necessary precaution particularly on trails through heavy timber or thick undergrowth, as in these cases the crowd is generally strung along in single file.

At noon a stop is made for lunch and all those who have obeyed the Bulletin injunction to "bring lunch, cup and spoon" immediately proceed to group themselves on available logs and grassy spots and fall to. Tea and coffee are made for everyone over an open fire in cans carried for the purpose. On some of the shorter walks the usual luncheon stop of an hour is lengthened to two hours or more and spent in swimming, playing games or lazily resting. Occasionally a short talk at the noon hour on some out-of-door subject adds both to the pleasure and profit of the day.

Occasionally a supper walk is taken. The walk proper is terminated at some convenient beach on the Sound or lake. Soon numerous tiny fires are glowing along the shore line and little groups are busily preparing that delectable feast known as a beach supper. Afterward, if the schedule permits, all gather round a big bonfire for a sing before boarding the boat for home.

Walks are frequently taken which have special features. These may take the form of a visit to some object or locality of interest, as a logging camp or peat bog. Annual feature walks include the Tacoma violet walk on the prairies, the rhododendron and Christmas greens walks to Kitsap Lodge, and chicken dinner, strawberry and apple cider walks for the edification of outdoor appetites.

Week-end outings, under the auspices of the Walks Committee, are of frequent occurrence throughout the year. On New Year's snow revels are held simultaneously by the Tacoma and Seattle clubs. The Tacoma party goes to Paradise Valley making headquarters at the Paradise Inn and spending several glorious days in snowshoeing, skiing

and tobogganing. The Seattle midwinter outing is spent at Snoqualmie Lodge. On these week-end trips the party is divided into committees which attend to the cooking, serving, dishwashing, firebuilding, etc. The menus for each meal are planned and the commissary purchased by the committee. The evenings are spent around the fireplace in the big living room singing songs or carrying out some impromptu program.

The Everett club usually holds its week-end outings in the near-by Monte Cristo district where there is a wealth of rugged mountains.

Mountaineering then, in a word, is organized play in the open. The local walks enable the lovers of the out-of-doors to indulge in this highest form of play in a useful and effective manner.

MONTE CRISTO OUTING

The Monte Cristo district has been selected for the 1918 outing of The Mountaineers, with an Outing Committee consisting of Dr. H. B. Hinman, chairman, C. G. Morrison, and M. M. Delwert. On account of war conditions the Board of Trustees deemed it wise to eliminate the big expense of the pack train, and to have an outing where members could go for one, two, or three weeks as desired. The Monte Cristo district is ideal for this purpose, the Hartford and Eastern Railway penetrating to the heart of one of the most rugged and picturesque mountain regions of the state. This makes camps possible very near lines of transportation, at the same time giving opportunity for many fine climbs.

Camps will probably be made at or near Robe, Silverton, Buck Creek, Goat Lake, Weden Creek, Monte Cristo, and Silver Lake. Probable climbs are Mount Pilchuck, Anaconda Peak, Marble Peak, Bald Mountain, Vesper Peak, Big Four Mountain, Del Campo Peak, Silver Tip Peak, and Cadet Peak. An attempt may be made on Sloan Peak, hitherto unscaled. While few of the mountains of the region are over 7,000 feet in elevation, many of them will test the skill of the trained mountaineer. There are also many beautiful alpine lakes, fine waterfalls in abundance, and a number of glaciers. It will be possible to provide both hard and easy trips nearly every day, and for one who wants simply a camping trip, the camp sites will always be in beautiful spots near the Stillaguamish or Sauk except the camps at Goat Lake and Silver Lake, which are even finer for short strolls or pleasant days around camp.

The expense will be less than on any previous annual outing.

H. B. HINMAN,
Chairman Outing Committee.

SUMMARY OF LOCAL WALKS AND SPECIAL OUTINGS—YEAR ENDING OCTOBER 31, 1917

No.	Date 1915-1916	Route	Miles	Leaders	Attendance	Cost
292	Nov. 5	Maury to Manzanita	10	Olive Rand	61	$0.50
293	Nov. 19	Sandy Beach to Eglon to Kingston	10	J. N. Bowman	99	.50
294	Dec. 3	Lake Ballinger to Edmonds to City Limits	17	Mr. and Mrs. J. C. Young	36	.31
295	Dec. 17	Elwood to Kitsap Lodge to Chico (Xmas Greens Walk)	7	Ruby W. Entz	206	.50
296	Jan. 14	Manchester to Point Glover to Waterman	10	Cornelius Barry	130	.50
297	Jan. 28	Southworth to Olalla	9	Charles Hazlehurst	134	.50
298	Feb. 4	Fort Lawton to West Point to Interbay (Anniversary Walk)	8	J. Fred Blake	71	.10
299	Feb. 18	Youngstown to Salmon Creek to Endolyne	8	Helen Criswell	102	.10
300	Mar. 4	Houghton to Hunt's Point	8	Leland J. Clark	60	.25
301	Mar. 18	Navy Yard City to Kitsap Lake to Chico	10	Boyd E. French	111	.50
302	Mar. 25	Auburn to Renton	17	Alida J. Bigelow	50	.70
303	April 1	End Phinney Ave. to Ballard Beach	5	Mary J. Prettegiani	64	.10
304	April 7	Visit to Brown's Bay Logging Camp	6	Local Walks Committee	6	1.01
305	April 15	Port Orchard to Black Jack Creek to Old Soldiers' Home	10	Paul S. Dubuar	79	.50
306	May 6	Redmond to Redmond	9	G. Irving Gavett	88	.50
307	May 13	Seattle to Tacoma (South Park to Municipal Dock)	28	Ben C. Mooers	19	.50
308	May 20	Esperance to Cowen Park	13	Leslie F. Curtis	48	.35
309	June 3	Chico to Kitsap Lodge to Chico (Rhododendron Walk)	6	Inez Wynn	135	.60
310	June 10	Maple Valley to Renton	17	Alice Stenholm	23	.95
311	June 17	Kennydale to Kennydale	9	Mary H. Cutter	56	.50
312	June 24	Colby to Long Lake to South Colby (Chicken Dinner Walk)	9	M. Ross Downs	46	1.50
313	Sept. 16	Renton to Renton	10	Peter McGregor	58	.40
314	Sept. 30	Mercer Island—East Seattle to East Street (Also Campfire)	10	A. H. Cruse & Gordon Lamb	101	.40
315	Oct. 7	Charleston to Kitsap Lake to Charleston	10	Ruby W. Entz	48	.60
316	Oct. 21	Manitou Beach to Agate Pass to Manitou Beach	12	Helene H. Warren	86	.50
		Special Outings				
32	Dec. 30-Jan. 1	Snoqualmie Lodge. Snowshoe tramps and sports	....	Local Walks Committee	32	5.00
33	Feb. 10-12	Snoqualmie Lodge. Lincoln's Birthday. Snowshoe tramps	....	Local Walks Committee	25	4.30
34	April 28-29	Climb of Silver Peak (5,527 ft.) from Snoqualmie Lodge	....	Local Walks Committee	28	3.70
35	June 30-July 1	Climb of Unnamed Peak (5,255 ft.) from Snoqualmie Lodge	....	Local Walks Committee	22	3.70
36	July 14-29	Knapsack outing. Snoqualmie Pass to Monte Cristo	....		5	16.35
37	Sept. 1- 3	Gold Creek. Alta Mountain (6,285 ft.). Bivouac	....	Local Walks Committee	10	4.25
				Total attendance	2039	

REVIEWS AND REPORTS

THE ASSOCIATED MOUNTAINEERING CLUBS OF NORTH AMERICA

In May, 1916, nine clubs and societies with common aims associated themselves in a Bureau with headquarters in New York. The membership now numbers nineteen, comprising about 16,000 individual members, as follows:

American Alpine Club, Philadelphia and New York.
American Civic Association, Washington.
Appalachian Mountain Club, Boston and New York.
British Columbia Mountaineering Club, Vancouver.
Colorado Mountain Club, Denver.
Explorers Club, New York.
Fresh Air Club, New York.
Geographic Society of Chicago.
Geographical Society of Philadelphia.
Green Mountain Club, Rutland, Vermont.
Hawaiian Trail and Mountain Club, Honolulu.
Klahhane Club, Port Angeles, Wash.
Mazamas, Portland, Oregon.
Mountaineers, Seattle, Tacoma, and Everett.
National Association of Audubon Societies, New York.
Prairie Club, Chicago.
Rocky Mountain Climbers Club, Boulder, Colo.
Sierra Club, San Francisco and Los Angeles.
United States National Parks Service, Washington.

Among the common aims, aside from the exploration and mapping of mountain regions and the ascent of leading peaks, are the creation, protection, and proper development of National Parks and Forest Reservations, the protection of bird and animal life, and of trees and flowers. Many of the clubs and societies issue illustrated publications on mountaineering, exploration, and conservation of natural resources, and are educating their members by means of lectures to a deeper appreciation of nature.

The Bureau publishes an annual Bulletin giving the officers, membership, dues, publications, lantern slide collections, outings, and other matters of interest of each club. Data on mountains and mountaineeering activities is supplied in response to inquiries.

Acquaintance with the literature of a subject is essential to efficient work in the field, and the Bureau sends many important new books on mountaineering and outdoor life to its members free of charge. A large collection of mountaineering literature has been gathered in the central building of the New York Public Library and the American Alpine Club has deposited its books therein, providing a permanent fund for additions. A bibliography of this collection has been published by the library. An extensive collection of photographs of mountain scenery is being formed and is available to anyone wishing to supplement the literature of a region with its scenery.

LE ROY JEFFERS, Secretary,
Librarian American Alpine Club,
476 Fifth Ave., New York.

December, 1917.

NOTES FROM MOUNTAINEERING CLUBS FOR 1917

In glancing over the communications from other mountaineering clubs received in response to our request for a record of the past year's accomplishments, one notices immediately the changes brought about by the war, many plans necessarily having been changed, outings abandoned or short ones substituted for long ones. Week-end outings or two-to-three day outings appear to be growing in favor generally. This is partly due to the fact that many clubs have acquired mountain homes. Lodge building is proving contagious. We notice that many new lodges or forest retreats have been built or clubs are considering the erection of some place of resort where the wearied man may "loaf and invite his soul" after a busy week, without journeying too far afield.

Trail making is being actively undertaken by several of the clubs and we trust this altruistic work may be encouraged by all mountaineering clubs and receive financial support from state legislatures and co-operation from the Forest Service, as the benefits to all lovers of the out-of-doors are obvious.

No notable climbs of any sort have been reported either by clubs or individuals.

Lecture courses have been given during the year by many of the clubs, the lectures being usually of an educational character.

An idea started by the Prairie Club of appointing a "Fellowship Committee" to keep in touch with members in the service, is worthy of commendation, and would be of particular service in the holiday season.

ALPINE CLUB OF CANADA

The Annual Camp was held in Cataract Valley just west of the Great Divide, July 17-31. Among the mountains climbed were Hungabee (11,447 ft.), Cathedral (10,454 ft.), Huber (11,041 ft.), and Odasay (10,165 ft.). Representatives of the English and American Alpine clubs and from the Appalachians took part in the outing. Nearly one hundred members are in the service and many others were detained at home by war conditions.

The first ascent of Mount Moloch on the north fork of the Illecillewaet was made by Dr. Hickson.

APPALACHIAN CLUB

The winter snowshoe parties continue to be the most popular outings of the club. Three were held during the winter, one of ten days duration in February at Randolph, N. H., the others of four to five days. The usual Memorial Day excursion and the July field meeting were given up because of insufficient registration due to the war.

Saturday afternoon walks were held throughout the year and several three-to-four-day outings. The camp at Three-Mile Island in Lake Winnepesaukee was open as usual through July and August. A permanent New England Trail Conference was organized, made up of organizations in Maine, New Hampshire, Vermont and Massachusetts, aiming to develop the tramping possibilities of the region.

BRITISH COLUMBIA MOUNTAINEERING CLUB

The club has had its usual enjoyable week-end trips into the nearby hills, well attended in spite of the fact that many members are in active service.

Two outings of several days each were held in June and July, the first to the Lions (5,700 and 5,800 feet), the second to Cathedral Mountain (5,750 feet). This year an outing was made in the Garabaldi district, the fifth camp held there.

Two parties made the climb of Mount Garabaldi (8,700 feet); sixteen reached the summit, one-third of whom were ladies. Dr. and Mrs. Hinman of The Mountaineers were guests of the club at this camp. Copper Peak (7,900 feet), Sphinx (7,725 feet), Castle Towers (8,100 feet) and the Black Tusk (7,350 feet), were climbed.

KLAHHANE CLUB OF PORT ANGELES

The Klahhane Club indulges in no extensive outings and has made no remarkable climbs. The club has leased from the Forest Service a log house on the slopes of Mount Angeles at an elevation of 2,300 feet. Here week-ends are enjoyed by members of the club, seldom a Sunday passing without some members seeking the spot for rest and recreation. Knapsack trips have been made over Mounts Angeles and Hurricane, returning by the Elwha, all the commissary, camp equipment, and blankets being carried. A small party climbed Mount Christie and another visited the Low Divide and Delabarre Park.

A course of seven lectures was held during the year and six sets of mountaineering slides were shown. Some important trail work is being undertaken and through the club's influence an automobile road to Mount Angeles is in progress, which when finished will be a splendid scenic highway.

MAZAMAS

The twenty-fourth annual outing was made to Mount Jefferson, Oregon (10,522 feet). The party numbered fifty and all previous records were broken, as forty-six persons reached the summit safely. On the first trial in 1900 not a single person reached the summit. The annual outing to Mount Hood was taken July 14-15. This trip was arranged early in order to accommodate visitors to the National Education Association convention and proved most successful as eighty-three persons reached the summit. The club continued its educational lecture courses during the year and had an exceptionally good series of local walks. A decrease in attendance was noticeable after the outbreak of the war, many of the men having given their services to the country. The club is contemplating the building of a lodge in the mountains but a site has not yet been selected.

PRAIRIE CLUB OF CHICAGO

The club made an outing this summer to Glacier National Park, and a summer camp was held at Beaver Bay, Minnesota. A number of the members have gone into the service of the country and a "Fellowship Committee" has been appointed to keep the absent members in close touch with their friends in the club, through the sending of letters, news budgets, reading matter, goodies and smokes, and remembrances on birthdays and holidays.

ROCKY MOUNTAIN CLIMBERS' CLUB

Even in war time there has been no decrease in membership or loss of enthusiasm among the members. The most notable thing the club has achieved this year is the acquisition of one of the most splendid headquarters rooms it could be possible for any mountaineers even to imagine. It is in the Community House just completed on the grounds of the Colorado Chautauqua. The room is 38x38 feet, the walls finished with field stone to the height of six feet, gray stucco being used above this. The ceiling is beamed, the floor cement.

A ten-days' journey through the Rocky Mountain National Park and a climb of Long Peak had been planned this summer, but owing to the drafted men being called out, the trip was made in three days in place of ten. Trips were also made to the top of the Arapahoe peaks and to the summit of Mount Aubudon.

SIERRA CLUB

The main outing which had been planned to the south fork of the San Joaquin and the Middle Fork of the King's River, was abandoned because of war conditions, and instead the party visited Tuolumne Meadows in the Yosemite National Park, for three weeks.

The lodges in the Sierras were kept open with an attendant in each. The Le Conte Memorial Lodge in Yosemite was made use of by several thousand visitors. The work on the John Muir trail is being continued, a second appropriation of $10,000 having been secured from the state legislature to be used in continuing the work on the trail. This magnificent work will connect the Yosemite National Park with Mount Whitney, and cover a distance of 250 miles through the highest part of the Sierra Nevadas.

The work of the club has been seriously affected by the war and the membership has fallen to some extent.

BOOK REVIEWS

Edited by Margaret W. Hazard

*The Boys' Book of Hunting and Fishing. By Warren H. Miller, George H. Doran Company, New York. Illustrated. $1.25 net.

Reviewers can do no better for the books of Warren H. Miller than to quote the words of Dan Beard:

"Then let us give our boys an outdoor life, give them an opportunity to go to the open for their games and recreation, and I know of no better way to stimulate a desire for this than to put into their hands books of the outdoor world, books such as Mr. Miller writes."

Mr. Miller has written in a common sense way with a consistent thought that his advice should be adapted to the needs, the opportunities and the pocketbooks of average boys. This gives the book an unusual value.

Part One: Angling for Boys.
Part Two: Shooting for Boys.
Part Three: Camping for Boys.

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*The Boys' Book of Canoeing and Sailing. By Warren H. Miller. George H. Doran, New York. Illustrated from photographs and drawings. $1.25 net.

"What I have set down in these pages will make a fairly able seaman and boat carpenter of any boy who loves the salt sea and the open waters."

The author will come very near to a realization of the ideal stated above. He leaves nothing to chance. In the preface he includes a picture of a yacht labelled with correct nautical terms. He warns the boy against lazy reading and makes it easy for him to learn.

Part One: Sailing and Boat Building.
Part Two: Canoeing and Cruising.
Part Three: Motor Boat Management and Construction.

Karakoram and Western Himalaya. An account of the expedition of the Duke of Abruzzi, by Filippo de Filippi, member of the expedition. E. P. Dutton & Co. $15.00.

Three months of the summer of 1909 were spent in the Karakoram region of the Himalaya, during which the Duke of Abruzzi reached a height of 24,600 ft. on Bride's Peak, within 510 ft. of the summit, where unfavorable weather conditions compelled him to turn back. This record still stands as the highest in mountain climbing. The party spent about two months above 17,000 ft. and

nine days above 20,000. Appendices are devoted to photogrammetric survey, meteorological report, geological results, botanical report, and a folio of panoramas and maps. The wonderful illustrations from photographs taken by Cav. Uff. Vittorio Sella, the story of camp life, Indian porters, food, camping supplies, clothing, and the hardships and rewards make fascinating reading aside from the scientific value of the work.

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*The Klondike Clan. By S. Hall Young. Fleming R. Revell Company, New York. Illustrated. $1.35 net.

In this novel, the author of "Alaska Days with John Muir" has told a dramatic story of the Klondike gold-fields. To him alone who has spent thirty years in the Northland would such a book be possible. In contrast with the usual story of a mad rush for gold the writer is able to give an imprint of moral fervor. It will not appeal to the reader who is lured by the "Trail of the Abysmal Brute." The book will do a great deal to dispel the old illusion that the Klondike is a region of elemental fury and fight. It leaves the imprint of the lives of men "broadened and sweetened by breathing the air and absorbing the thought and character of the great West."

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*Woodcraft for Women. Kathrene G. Pinkerton. Outing Publishing Co. Price 80 cts.

Clothing, packs and packing, tents, camp making, fires, cooking, fishing, winter woods, camp courtesy, are all given consideration and many practical suggestions are made. The chapters on suitable and comfortable clothing and footwear emphasize their importance and many of the most experienced of the Mountaineers will agree with the author's conclusions.

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*Your National Parks. By Enos A. Mills. Houghton Mifflin Company, New York. Illustrated. $2.50 net.

"Your National Parks," by Enos A. Mills, should be read by every Mountaineer. The first impulse of the reviewer was to turn to page 230, The Olympic National Monument. In a powerful exposition of the Olympics came this sentence: "Both in exploring this Olympic region and in endeavoring to have a part of its primeval scenes saved in a park, the Mountaineers' Club of Seattle has taken an aggressive part."

Chapter twenty, John Muir, next attracted. Mills quotes from Muir in a sentence that interprets him as "the grandest character in National Parks history and in nature literature." The quotation is as follows: "Every wild lesson a love lesson; not whipped into us but charmed into us."

The preface, the contents, a random reading of many topics, convinces one that this latest work of Mills should be read and studied in its entirety.

A guide to the National Parks with detailed information regarding transportation and expense, by Laurence F. Schmeckebier is included in the volume.

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*Glacier National Park, Its Trails and Treasures. By Mathilde Edith Holtz and Katherine Isabel Bemis. George H. Doran Company, New York. Illustrated. $2.00 net.

This record of a horseback trip through the park is also a guide. The chapter on Blackfeet legends is especially interesting as it gives the reasons for many of the Indian names of localities and shows that in some instances the white man misinterpreted them. Chapters on flowers, lakes, glaciers, trails, and roads call the prospective traveler's attention to the many beauties of this national preserve. A map of the park and a splendid index add to the value of the book.

*Trout Lore. By O. W. Smith. Frederick A. Stokes Company, New York. Illustrated. $2.00 net.

"I am an angler, not a crass fisherman. While I can say without a smack of conceit that I take my share of trout, it is not the fish that calls me afield, rather the invitation of the purling brooks, the woo of God's out o' doors."

This paragraph from the foreword of "Trout Lore" sounds the keynote of the book. The author has a "great love for the speckled trout" even while he is taking them. He is not given to sentimental adjective exaggeration, yet he manages to leaven his exceptional technical knowledge of fishing with the atmosphere of humor and philosophy.

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*The Book of Camping. By A. Hyatt Verrill. Alfred A. Knopf, New York. Illustrated. $1.00 net.

This is a practical little book on all phases of camp life. How and where to camp, camp housekeeping, trailing and tramping, how to trap and why, and emergency hints for taking precautions after accidents are all well treated by a man who has had much camping experience. In the chapter on preparing to go camping there are good lists on outfits, clothing, first-aid kits, and provisions. A commissary list of twenty-five pounds is given for a two-weeks' tramp. Illustrations of different blazes and how to read them as well as how to mark trail in a desert country, will be of value to the chechako.

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*Two Summers in the Ice Wilds of Eastern Karakoram. By Fanny Bullock Workman and William Hunter Workman. E. P. Dutton & Co. Illustrated.

Dr. and Mrs. Workman have spent eight summers exploring and climbing in the Karakoram region of the Himalayas. Dr. Workman writes of their 1911 work on the Dong Dong and other glaciers, while Mrs. Workman writes of their exploration of the Siachen, or Rose Glacier, in 1912. She designates the Rose as the world's longest non-polar glacier and estimates its length at 45 miles, most of which they traversed, also exploring several of its affluents and making one first ascent, Tawiz Peak, 21,000 ft. The book is well illustrated and mapped.

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*A Thousand-Mile Walk to the Gulf. By John Muir. Houghton Mifflin Company, Boston and New York. Illustrated. $2.50 net.

In 1867 John Muir tramped from Indiana to Florida. Fifty years later his manuscript describing the trip was given to the world, reaching the reviewers and the book shelves in 1917.

It is the story of Muir's first great adventure in the outdoors in quest of nature's treasures. Unlike the earlier work of most writers there is shown no hint of the amateur. Rather does it glow with the fresh emotions of twenty-nine presented with all the mature technique of a man of letters. It would be indeed difficult to find a work equal to this book of John Muir when viewed from two distinct viewpoints—as a contribution to literature and a study-companion of the mountaineer.

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*Canada the Spellbinder. By Lillian Whiting. E. P. Dutton & Co., New York. Illustrated.

The last chapter of this book entitled "The Call of the Canadian West," indicates its theme; it is an enthusiastic and convincing invitation to the reader to become a part of "a region which will ere long become a vital center of population and strength to the British Empire."

The selection of detail gives a well-balanced content, while the illustrations assist materially the entire exposition. But most of all the author's thought calls for the advance of "an enlightened civilization into the vast new region that beckons to humanity."

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*Camping and Woodcraft, by Horace Kephart. Illustrated. $1.50 net.

This handbook for vacation campers covers a very wide range of outdoor information. The chapters most interesting to The Mountaineers are the ones on pathfinding, trips afoot, packs, and concentrated foods. For one who goes without a pack the chapters on bark utensils, edible plants, and living off the country should prove valuable. Each of the twenty-three chapters deals with some phase of camping or woodcraft.

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*The Bird Study Book, by T. Gilbert Pearson, Secretary, National Association of Audubon Societies. Illustrated. $1.25 net.

As a guide to the beginning student in ornithology this book suggests lines of action that will cause a deeper study of the subject. It treats of birds in a general way under the following subjects: First acquainance with the birds, the life about the nest, domestic life of the birds, the migration of birds, the birds in winter, the economic value of birds, civilization's effect on the bird supply, the traffic in feathers, bird protective laws and their enforcement, bird reservations, making bird sanctuaries, teaching bird study.

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*The Book of Forestry. By Frederick Franklin Moon. D. Appleton and Company, New York. Illustrated. $1.75 net.

By virtue of Doctor Moon's life work as Professor of Forest Engineering at Syracuse, he is ideally prepared to write a book of forestry. To him has come, first of all, the theme of conservation. His social ideals have dominated the writing of the book, giving it a strong appeal to all forest lovers. His point of view is clearly shown in his preface statement that: the early settlers considered the forest a menace; the American citizen of today knows that virgin forests can be used up; it is time for that type of conservation that uses our forests and at the same time develops them by intelligent care and cultivation.

Part one tells of the value of forests, their growth, the properties of woods, the life of the forester, measuring, harvesting, and preserving the forest crop, and the future of the science of forestry. Part two describes trees and shrubs and presents a key to species. The book concludes with a valuable appendix, a list of reference books, definitions of forestry and logging terms, and a comprehensive index. The book will appeal to mountaineers.

*Supplied by the Associated Bureau of Mountaineering Clubs.

REPORT OF COMMITTEE ON GEOGRAPHIC NAMES

The following list of names has been submitted by the Committee on Geographic Names and approved by the Board of Trustees. It is to be forwarded to the National Board of Geographic Names for its consideration:

SNOQUALMIE QUADRANGLE

Gem Lake—Small lake north of and flowing into Snow Lake.

Melakwa Pass—Pass between Chair and Kaleetan Peaks.

Tuscohatchie Lake—Source of creek of the same name lying north of Granite Mt.

Tunnel Creek—Flows from Divide Lake just north of C. M. & St. P. tunnel, east into Coal Creek.

Hyak Lake—Small lake at 3,700 feet elevation near divide just south of C. M. & St. P. tunnel.

Hyak Creek—Flows from Hyak Lake, east to station of Hyak on C. M. & St. P. R. R. on Coal Creek.

Rampart Ridge—Forms the eastern wall of Gold Creek Valley.

Chikamin Ridge—Runs east of south from Chikamin Peak towards Park Lakes.

Low Mt.—Between Granite and Denny Mts.; elevation shown on quadrangle as 5,357.

Source Lake—The source of the South Fork Snoqualmie River.

Gingerless Lake—Small lake southwest of Alaska Mt. and east of Red Mt.

Humpback Mt.—West of Humpback Creek; elevation given as 4,839.

Lake Annette—Source of Humpback Creek.

CEDAR LAKE QUADRANGLE

Bandanna Mt.—North of Bandera on C. M. & St. P. R. R.; elevation 5,255.

Pratt Mt.—North of Bandanna Mt.; elevation 5,105.

Pratt Lake—Formerly known as Ollie Lake.

SKYKOMISH QUADRANGLE

Lennox Creek—Rises on southern slope of Lennox Mt. and flows westward.

Cascade Mt.—Between East and West Forks of Miller Creek one mile north of Great Falls Creek.

Upper and Lower Scenic Lakes—Connected lakes at source of Surprise Creek.

Mt. Baring—New name for Mt. Index.

Merchant Peak—Should be called Townsend Mt. and the former name applied to peak one mile to southwest; elevation 5,827.

Gunn Lake—On southwest slope of Gunn Peak.

Pass Creek—Rises near Cady Pass and flows west into Skykomish River.

Quartz Creek—Rises near Curry Gap and flows south into Skykomish River.

Ward's Pass—Pass through Cascade Divide from source of Skykomish River and Wenatchee River between peaks 6,352 and 5,867.

Toad Mt.—Half mile northeast of Silver Lake; elevation 5,382.

Poodle Dog Pass—The pass at the head of Sunday Creek just before reaching Silver Lake from Monte Cristo.

Sunday Creek—Small stream flowing north from just below Poodle Dog Pass into the Sauk in the town of Monte Cristo.

Wilman Peaks—Two sharp peaks one mile southeast of town of Monte Cristo.

Foggy Mt.—Peak about 6,700 feet due north of "C" in Monte Cristo, having a glacier on its eastern slope.

Ida Pass—Immediately west of Foggy Mt.

76 Gulch—Runs north from pass above Twin Lakes into town of Monte Cristo.

GLACIER PEAK QUADRANGLE

Lewis Peak—About two miles southwest of Barlow Pass; elevation 5,580.

White Mt.—On Cascade Divide near Glacier Peak at beginning of words "Snohomish Co."; elevation 6,986.

GLACIER PEAK GLACIERS

Milk Creek Glacier—At source of west branch of Milk Creek.

Pumice Glacier—Large, long glacier on northeast side and gives rise to Pumice Creek, which flows just south of peak; elevation 7,011.

Chocolate Glacier—Next south of Pumice Glacier. So named because of its dark color.

Chocolate Creek—Rises from glacier of that name.

Cool Glacier—Next south of Chocolate Glacier.

Meany Glacier—Large glacier with two branches on southwest slope. Named for Professor Edmond S. Meany.

Suiattle Glacier—The source of the Suiattle River on south slope of Glacier Peak.

Ten Peak Glacier—On north slope of Ten Peak Mt.

Ten Peak Mt.—On Cascade Divide south of Glacier Peak, shown as 7,960 just east of words "boundary line."

Disappointment Peak—Sharp peak just below summit of Glacier Peak and on the southwest ridge.

White River Glacier—Only glacier flowing into White River, south of Glacier Peak.

East Fork Suiattle River—Eighth creek southeast of Canyon Creek flowing into Suiattle.

C. G. MORRISON, Chairman.

SECRETARY'S REPORT

Following is a summary of the various activities of The Mountaineers for the year ending November 1, 1917:

The By-Laws of The Mountaineers were amended to include four classes of membership, with dues as follows: Active, $4 for King County members, $3 for all others; Contributing, $10; Life, $100; and Honorary members. Wives and husbands of members were given the privileges of members, except as to voting and receiving publications.

In April the Board voted to suspend the dues of all members in military service during the period of the war. Later the same rule was held to apply to members who were in service with our Allies.

From Labor Day to the Fourth of July the Local Walks commitees of Seattle and Tacoma and Everett have scheduled trips for practically every Sunday and week-end, often making the choice a hard one between three attractive outings. The Seattle committee has co-operated with the two Lodge committees, the New Year and other week-end trips going to Snoqualmie Lodge and the Christmas greens and Rhododendron walks making Kitsap Lodge headquarters. The Seattle Local Walks Committee also conducted a two weeks back-packing trip. The Everett week-end outings have been mostly in the rugged Monte Cristo country, while the Tacoma committee has taken advantage of the proximity of Mount Rainier and a five days' mid-winter snowshoe trip and other holidays were planned for various parts of the Rainier National Park.

Around Snoqualmie Lodge the trail fund contributions have been judiciously spent. There is now a trail to Silver Peak with a short cut down Rockdale Creek to the station. Surveyors, Divide and Rockdale lakes are connected by trail and work has been done on the Denny Creek trail. Telephone connections have been made with Rockdale; the woodshed is full; and a few trees have been cut near the Lodge to open the view. The Lodge Committee has also

conducted outings and a helping hand day. The registered attendance for the year is 392.

The Kitsap Lodge Committee has successfully carried out plans for the improvement of Kitsap Lodge and property. A fire trail has been cut, the Bennett trail built, work done on a trail to shorten the route to Charleston and the trail to Hidden Ranch improved. The buildings have been repaired and a well dug. The Committee has given a number of week-end parties and helping-hand days. The registration for the year is 503.

The Annual Outing for 1917, August 4-25, to Mount St. Helens and Mount Adams was successfully carried through with 65 members and guests from other clubs. The real trip started at Spirit Lake with tryouts and the climb of St. Helens, 9,750 feet, 49 making the climb. Then across to Mount Adams, and around three sides of it, 37 making the climb of 12,307 feet. Record tubes Nos. 15 and 16 were placed on St. Helens and Adams respectively.

The Mountaineers have long desired a club room in Seattle, and in September our room at 725 Central Building was opened. The furniture was especially designed for the room and the committee is now getting together the books, albums, maps and records of the club to be kept there. The Committee on club quarters also arranged for storage space in the basement of the Central Building for the various equipment owned by the club.

Eight evening meetings with illustrated lectures, etc., have been held, and the tenth anniversary of the founding of The Mountaineers was celebrated with a dinner at the Butler Hotel.

During the Industrial Exhibit in Seattle in June, The Mountaineers had charge of an evening devoted to mountaineering equipment, etc.

The membership as of November 1, 1917, stands: Main Organization, 401; Tacoma Branch, 89; Everett Branch, 51; Monroe Branch, 7; total 547. Of this total 262 are men, 285 women.

OLIVE RAND, Acting Secretary.

REPORT OF EVERETT MOUNTAINEERS

For Year Ending September 7, 1917

Number of members, 47; business meetings, 1; lectures, 2; lectures given out of town, 1; local walks, 16; mountain trips, 3. Average attendance on local walks, 21. Balance in treasury, $159.

H. B. HINMAN, Chairman.

REPORT OF THE TACOMA MOUNTAINEERS

October 12, 1917

Membership—

Men, 36; women, 53; total	89
New members during the year	24
Removals and withdrawals	24

Out-of-Doors Activities—

	Number	Attendance	Mileage (Approx.)
Local Walks	20	508	218
Week-end Outings	2	55	40
Special Outings	1	68	56
Totals	23	631	314

MARY H. MUDGETT, Secretary-Treasurer.

REGULAR MONTHLY MEETINGS

December, 1916–November, 1917

December 15, 1916. Lecture, "Mountains in English Literature," Professor E. G. Cox, of the University of Washington.

January 19, 1917. Banquet at the Butler Hotel celebrating the tenth anniversary of the founding of The Mountaineers. Speakers, Professor E. S. Meany, George E. Wright, Rev. Hugh Elmer Brown, Professor J. N. Bowman, Mary R. Paschall.

February 16, 1917. Illustrated lecture, "The Cascades and Lake Chelan," L. D. Lindsley.

March 16, 1917. Lecture, "Birds and Their Habits," S. W. Rathbun.

April 20, 1917. Lecture, "Trees of the Northwest," Dean Hugo Winkenwerder, School of Forestry, University of Washington.

May 18, 1917. A series of talks under the general subject, "A Preparation for the Trail, Trail Ethics," W. H. Gorham; "Women's Outfit," Mary L. Hard; "Man's Outfit," C. G. Morrison; "Mount Adams and Mount St. Helens," L. A. Nelson and H. B. Bennett.

June, July and August. No meetings.

September 21, 1917. Nominations for Board of Trustees. Short talks, "Snoqualmie Lodge," E. W. Allen; "Kitsap Lodge," H. McL. Myers.

October 19, 1917. Illustrated lecture, "Color Photography," L. C. Murdock.

November 16, 1917. Illustrated lecture, "Mount St. Helens and Mount Adams Outing, 1917," Leslie F. Curtis.

GERTRUDE INEZ STREATOR, Historian.

REPORT OF LOCAL WALKS COMMITTEE

Year Ending October 31, 1917

The Local Walks Committee arranged for twenty-five walks and six special outings during the past year, as shown in the accompanying schedule (page 84). The total attendance was 2,039, which includes 309 guests. The walks may be summarized as follows:

	Average Attendance	Average Mileage
4 long Sunday walks	32	20
20 short Sunday walks	89	9
1 Saturday afternoon walk	6	6

Included in the above were a Christmas Greens walk, the first walk of The Mountaineers over again, a chicken-dinner walk, a campfire and a visit to a logging camp in operation. One of the walks was a supper walk. On three of the walks short talks were given as follows: "Reforestation," Professor B. P. Kirkland; "The Geology of Puget Sound," Professor C. E. Weaver, and "How to Know Trees," Dean H. Winkenwerder. A fourth talk was arranged but had to be called off because of the lecturer's sickness.

On the six special outings four ascents were made: Silver Peak (5,527 feet), Big Snow Mountain (6,670 feet), Alta Mountain (6,285 feet) and an unnamed mountain (5,255 feet).

New Year's day falling on a Monday presented an opportunity for a snow frolic at Snoqualmie Lodge which could not be overlooked. Thirty-two participated in the outing and pronounced the snowshoeing "great." A trip was made to Guye cabin on Sunday and on Monday there were snowshoe races on Lodge Lake. The Lodge's big living room was comfortably filled and impromptu vaudeville made the evenings seem all too short. "A good time was had by all."

Lincoln's Birthday was our next long week-end and this too was celebrated by a snowshoe outing at Snoqualmie Lodge. Toboggans, snowshoe tramps and amateur vaudeville filled the allotted time full well.

It having been decided that the snow would probably be hard enough by then, the last week-end in April was selected for a climb of Silver Peak. Only a week before the outing the scouts were compelled to use snowshoes on which they climbed practically to the summit. Snow conditions improved during the week, the crust was in good shape for the party to climb, and all would have made the summit easily but for a blizzard which met us on the ridge just below it.

June thirtieth saw a party twenty-two strong attacking an unnamed peak. Snoqualmie Lodge was again used as a base. A glorious day and an easy but varied climb with magnificent views marked an outing which will be remembered by all.

Those interested in the knapsack trip scheduled for July dwindled to five who participated in an outing well worthy of repetition in years to come. Starting at Rockdale the party traversed forest service trails to Skykomish, climbing Big Snow Mountain from Lake Dorothy. From Skykomish the train was used to Index, forest service trails again to Monte Cristo and thence to Silverton. Including side trips this aggregates about 110 miles. Good weather, varied mountain and forest scenery and the best of good fellowship made an outing never to be effaced from the memories of the fortunate few who made it.

The Labor Day week-end was celebrated by an outing in the basin of Gold Creek. Alta Mountain was climbed but on account of lack of time the summit was reached by only two.

The attendance for the year on activities conducted by this committee has again fallen off. Co-operation on the part of the two lodge committees, who have held a number of outings, accounts for some of this as their attendance figures are of course not included herein. Owing to the increased cost of boat charters fewer have been made and a larger number of regular steamers used, curtailing the territory available for walks and incidentally reducing attendance.

Financially the past year has differed from several former ones in that this committee has been unable to accumulate a surplus and make transfers therefrom to the general treasury. This is greatly to be regretted but is a condition which must be looked for during several years to come.

E. WILFRID HARRISON, Chairman.

SNOQUALMIE LODGE COMMITTEE REPORT

For Year Ending October 31, 1917

The committee's efforts this year were directed largely toward making the Lodge more attractive and serviceable. Window curtains were designed and hung under Miss Bigelow's direction; the kitchen cupboard was remodeled; Mr. French presented a mounted map of the Lodge region; Mr. Abel donated a comfortable chair; a small stock of provisions which may be purchased by visitors was laid in; the water supply was reopened; the wood shed was filled with a two years' wood supply; a swimming place on Lodge Lake was cleared out; by cutting a few trees, several grand vistas were opened up from the Lodge.

Those who have waited for late trains at Rockdale will particularly appreciate the installation of a telephone system, the cost of which was donated by the Tacoma Mountaineers, and the work on which was done by volunteers under Mr. Mooers' direction.

Perhaps the most noticeable improvement is in the trails. A voluntary committee headed by Mr. Wright collected subscriptions and directed their expenditure with the result that an excellent trail now leads to Silver Peak; another makes a loop connecting Divide, Surveyors and Rockdale Lakes with the Lodge; whereas another curves around Lodge Lake. These trails are all designated by attractive trail markers presented by Mr. Otto Voll. An increasing number of people are taking advantage of the Lodge as a summer resort.

Charging the Lodge this year with only one-half of the cost of the wood supply (enough was cut and piled to last at least two years), the year shows a net profit, after repaying all advancements made by the club, of $17.29, not including the donation being used to install a telephone.

EDWARD W. ALLEN, Chairman.

REPORT OF KITSAP LODGE COMMITTEE

In the past year there have been about 750 visitors at the lodge of whom some 400 stayed over night. Eight week-end parties were given with attendance of from 20 to 120. A new well has been dug and the old one cleaned out, the most important fire trail to a considerable extent completed, and the Bennett trail finished through the beautiful gulch to Bolton's ranch.

In conclusion, the committee desires to thank all the visitors of the past year who have done so much hard work and especially to thank our neighbors on both sides for their continuous and thoughtful assistance.

HARRY McL. MYERS, Acting Chairman.

FINANCIAL REPORTS OF COMMITTEES

Outing

	Receipts	Disbursements
Members of outing	$2,757.10	
Scouting		$ 83.83
Outfit		21.30
Commissary		538.08
Cooks		264.00
Pack train		715.35
Transportation, rail, stage, boat		775.45
Reunion		13.70
Miscellaneous		54.07
Refunds	.92	63.42
Profit		228.82
	$2,758.02	$2,758.02

Local Walks

Balance on hand, October 31, 1916	$ 61.95	
Receipts for the year to October 31, 1917	1,481.21	
Transportation, railroad and boat		$1,020.06
Commissary, including chicken dinners		262.18
Cooks and helpers		9.00
Lodge fees		35.80
Freight, drayage and packing		3.00
Printing, postage, telephone, etc.		11.28
Outfit, new and repairs		2.65
Prizes		6.60
Scouting		8.00
Committee expenses		95.08
Reunions		8.05
Refunds to members		16.15
Balance on hand October 31, 1917		65.31
	$1,543.16	$1,543.16

Snoqualmie Lodge

Dues	$ 110.90	
Commissary	28.64	
Appropriation from treasury	125.00	
Donation, Tacoma Branch	25.00	
Donation	5.00	
Construction, maintenance and operation		$ 42.44
Wood supply		153.80
Commissary		10.41
Balance on hand		87.89
	$ 294.54	$ 294.54

Kitsap Lodge

Fees and party charges, including proceeds of Red Cross sale	$ 305.16	
Donations	5.00	
Appropriation from general treasury	100.00	
Commissary, etc.		$ 174.60
Permanent construction		163.61
Donation to Red Cross		15.00
Balance on hand		56.95
	$ 410.16	$ 410.16

Audited November 15, 1917.

B. J. OTIS, Chairman.

W. H. ANDERSON.

TREASURER'S REPORT FOR YEAR ENDING OCTOBER 31, 1917

	Receipts.	Disbursements.
Cash on hand Nov. 1, 1916	$ 243.43	
Dues	1,876.00	
Reserve for Permanent Fund	388.43	
Permanent Fund (Deposited in Bank for Savings)		$ 391.43
Snoqualmie Lodge Donation	27.50	
Snoqualmie Lodge (Maintenance and Operation)		181.73
Kitsap Lodge (Permanent Construction)		100.00
Kitsap Lodge (Maintenance and Operation)		12.91
Rooms		219.50
Magazine Cost		672.12
Magazines Sales	92.59	
Bulletins and Prospectus		489.51
Advertising in Publications	322.00	
Interest on Bonds	71.00	
Pins and Fobs	16.00	
Miscellaneous	15.00	130.75
Outing, 1914	237.50	
Outing, 1916	.50	
Outing, 1917	2,758.02	2,529.20
Pictures, Slides and Albums		60.36
Stationery and Postage		110.08
Salary Stenographer		101.00
Refunds to Branches		152.00
Entertainment Committee—Exhibit		2.12
Accounts Payable		282.98
Accounts Receivable	3.00	
Cash October 31, 1917		625.28
	$6,060.97	$6,060.97

Assets

Cash on Hand		$ 625.28
Investments		$1,100.00
Permanent Fund (Bonds and Savings Deposits)		1,596.19
Snoqualmie Lodge		2,900.00
Kitsap Lodge		523.55
Rooms		219.50
		$6,964.52

Liabilities

Surplus		$5,598.98	
Deductions:			
Loss Surplus Outings	$ 714.47		
Less amount collected on 1914 Outing	$237.50		
Less amount collected on 1916 Outing	.50		
Less Profit 1917 Outing	228.82		
	466.82	247.65	
			$5,351.33
Reserve for Permanent Fund			1,613.19
			$6,964.52

Permanent Fund

Nov. 1, 1915—Municipal Bonds	$ 600.00
June 23, 1917—Liberty Bonds	500.00
Deposit in Bank for Savings	104.76
Life Memberships	200.00
Interest on Savings Deposit	29.43
Interest on Bonds	42.00
Initiation Fees for the year deposited in Bank for Savings	120.00
	$1,596.19

CHARLES ALBERTSON, Chairman.

Audited November 15, 1917.
B. J. Otis, Chairman.
W. H. Anderson.

THE MOUNTAINEERS

OFFICERS AND TRUSTEES

Edmond S. Meany, president
George E. Wright, vice-president
Irving M. Clark, secretary
Frank G. Pugsley, treasurer
Gertrude Inez Streator, historian

Winona Bailey
H. B. Bennett
Crissie Cameron
L. F. Curtis
H. B. Hinman
R. H. McKee
Lulie Nettleton
J. H. Weer

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TACOMA BRANCH

(Place is Tacoma unless otherwise stated)

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EVERETT BRANCH

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Billings, Ida M., Box 12.
Blem, Bertha A., 1614 Broadway.
Blem, Edwin, 1614 Broadway.
Blomberg, G. A., 1726 Colby Ave.
Bordsen, Ed., 2329 Lombard St.
Boxeth, Thora, 2508 Grand Ave.
Bratney, Nella M., 3120 Colby Ave.
Cady, Vernon E., care Postoffice.
Church, Geo. A., 3009 Hoyt Ave.
Coleman, Francis R., Sparks, Wn.
Coleman, Mrs. F. R., Sparks, Wn.
Crayton, Catherine, 1209 Hoyt Ave.
Crogstad, Alvina, 2711 Hoyt Ave.
Cuthbertson, W. L., 2815 Rockefeller Ave.
Deiwert, Myron M., 2132 Rockefeller Ave.
Deiwert, Stella, 2132 Rockefeller Ave.
Doolittle, Hazel, 418 Ave. J., Snohomish, Wash.
Doph, W. E., 3325 Oakes Ave.
Edwards, Flora M., 2032 Lombard Ave.
Elliott, Esther, North Yakima, Wn.
Eriksen, W., 12th Co., W. C. A., Fort Casey, Wash.
Hinman, H. B., 1612½ Hewitt Ave.
Hinman, Mrs. H. B., 2605 Baker Ave.
Hurd, Mrs. G. R., East Stanwood, Wn.
Johnson, Elsie E., 2227 Wetmore Ave.
Lesh, Louis, 1605 Everett Ave.
Madden, A. J., 3101 Nassau Ave.
McBain, Mabel E., 2532 Lombard Ave.
Mills, Jane, 3909 Hoyt St.
Moody, Robert, 2609 Hoyt Ave.
Moore, Hattie F., 2521 Rucker Ave.
Moore, Mae E., 2521 Rucker Ave.
Nevius, Calla E., 3112 Rockefeller Ave.
Nimrick, Edith, 2403 Lombard St.
Oldfield, H. L., 1221 Colby Ave.
Pringle, Mrs. Walter, 2532 Lombard Ave.
Sexton, Mary Ellen, 2713 Pine St.
Thompson, Nan, 2607 Everett Ave.
Thompson, Geo. D., 2429 Baker Ave.
Thorsen, Chester T., 1917 Wetmore Ave.
Varley, J. A., 3414 Oakes Ave.
Vikdal, P. G., 1612½ Hewitt Ave.
Weeks, Marie, 3228 Grand Ave.
Zimmerman, Mabel A., 1209 Hoyt Ave.

MONROE BRANCH

(Place is Monroe unless otherwise stated)

Bascom, E. T.
Blaine, Fannie A.
Clark, Whit H.
Gould, J. M., Gold Bar, Wash.
Peterson, Russell, care Reformatory.
Pickett, Lee, Index, Wash.
Tooker, H. C., 332 Sam St.