

THE MOUNTAINEER

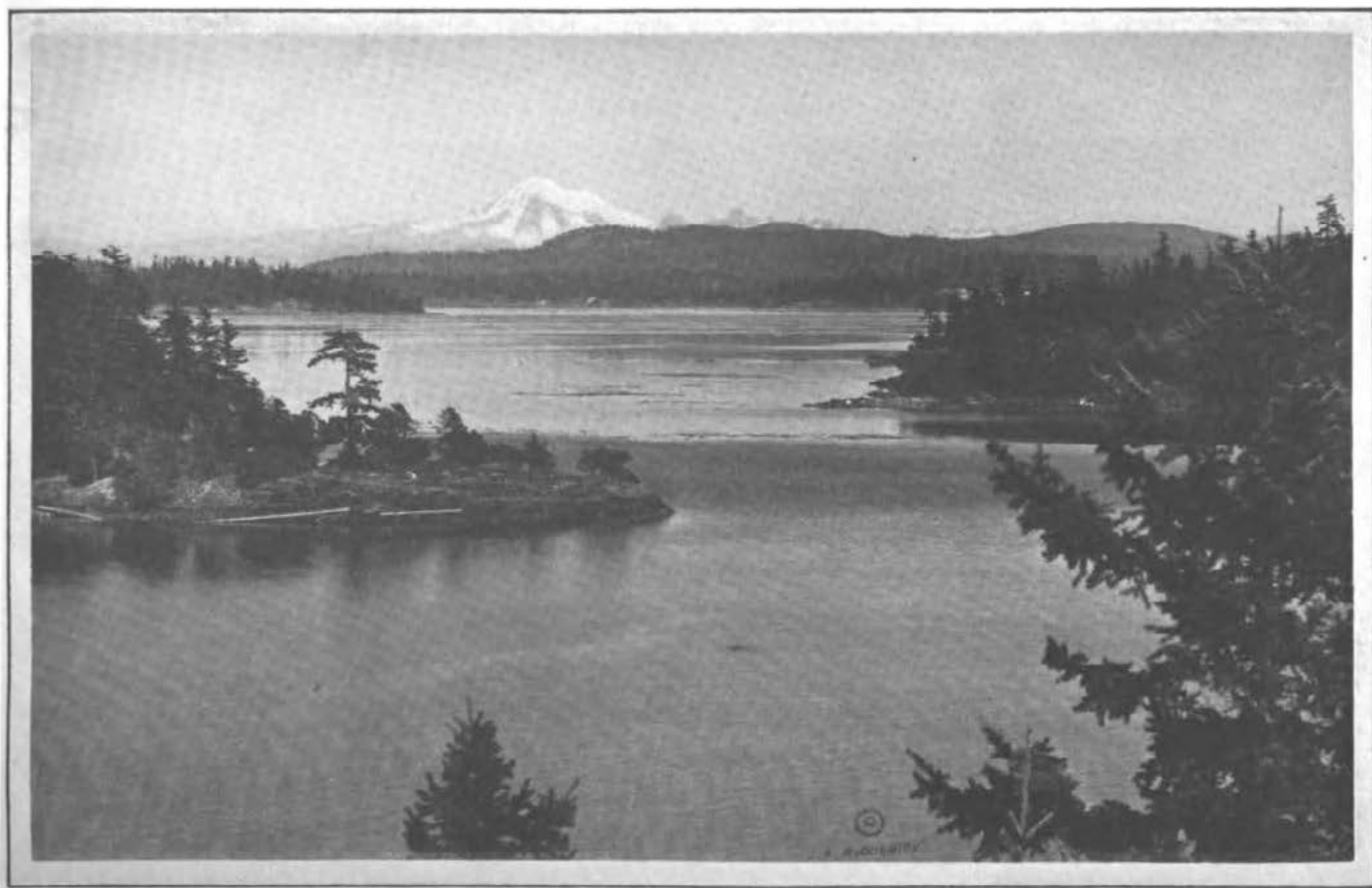
VOLUME IX · 1916

MOUNT BAKER and MOUNT SHUKSAN



PUBLISHED BY
THE MOUNTAINEERS
INCORPORATED
SEATTLE WASHINGTON.

Excursion 1916
The Mountaineers
Incorporated



**MOUNT BAKER FROM FRIDAY HARBOR,
SAN JUAN ISLANDS**

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Gracie

The Mountaineer

VOLUME NINE

December, 1916

Mount Baker *and* Mount Shuksan



Organized 1906
Incorporated 1913

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The Mountaineer

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HANNEGAN PASS CAMP

L. F. Curtis

The camp was in an open bench three hundred feet below the pass. The snow-draped eastern spur of Ruth Mountain rose beyond camp, its slopes draining into Ruth Creek in a canyon several hundred feet below the scene of the picture.

WITH THE MOUNTAINEERS IN 1916

MRS. L. R. FRAZEUR

"Oh we've come to climb Mount Baker,
And we think we're going to make her,
Sing the glory of the mountains all the day!"



LID SOL ushered in a bright and happy fifth of August when the Mountaineers gathered at King Street Station in Seattle for their tenth annual outing. There was the usual commotion over dunnage, the usual happy greetings of old members and hearty Godspeeds of friends not fortunate enough to be with us. The famous outing committee who led us "round the mountain" were there intact along with others of the old crowd already bronzed by the early summer's suns.

In high spirits and with happy anticipation of joys to come we set out for three glorious weeks in what proved to be as rugged, beautiful, and altogether interesting country as the Mountaineers have ever

visited. The beauties of the trip began with the journey northward to Bellingham along the shores of Puget Sound on the Great Northern Railway. At Everett we were joined by more enthusiasts and when, at the end of a week, five other members joined us at our Shuksan camp, we were a party of fifty, a somewhat smaller number than usual as far as quantity goes, but quality was there in its very quintessence. And think of the advantages of a bread line reduced by fifty per cent!

At Bellingham we were met at the station by members of the Mount Baker Club and Chamber of Commerce, most hospitably entertained at luncheon at the Hotel Leopold, and later the entire party was taken in automobiles all around Bellingham and its environs and shown the various points of interest. Our train left at four o'clock and the early evening found us at the small station of Glacier, where the natives turned out in full force to get a look at us. A short distance up the road in a green meadow skirted by trees we made our first camp and slept once more under the beloved stars.

The following day we eagerly took the trail in an easterly direction along the Nooksack river over a beautiful forest road with fine growths of cedar and fir, past the electric power house at Excelsior, to Shuksan, our second camp. It was a walk of nearly fourteen miles and we arrived about five o'clock. Shuksan is said to have been a flourishing mining town of over a thousand inhabitants in former years but now boasts not a shadow of its former glory. Only three or four dilapidated shacks mark the site. Scarcely had we arrived when a sudden heavy downpour accelerated our preparations for the night. The showers, however, were intermittent and permitted us to enjoy the first camp fire's blazing logs and our Sunday night quotations.

On Monday morning we struck our first up grade, a relentless rise of about two thousand feet over a short distance of six miles, but along a splendid trail carefully provided with the necessary switch-backs, wonderful green forest vistas and a glorious view of Mount Baker's shining cone set in its frame of dark firs. To the northwest along Swamp creek lay our path over a wooded ridge. When this was surmounted there lay before our eyes the old familiar snow banks smiling a glad welcome, clusters of tiny fragrant violets, columbines, and buttercups shyly peeping around the snow, and all the enchanting delights of the blessed high country. Beyond lay the Twin Lakes separated only by a tiny rivulet where our next three days' camp was to be located. The site was a most attractive one, stretching along a dry green ridge which skirted one of the little lakes almost covered by its ice sheet. The commissary lay below near a boisterous, singing stream.

During our stay here short climbs were made up Winchester peak, and over the snow fields to the Lone Jack mine, which lay to the southeast, and where the party was most hospitably received and

conducted around the mine. The view from the small Mount Winchester was a revelation of joys to come, displaying as it did a complete peak-encircled horizon with Red Mountain, the Tomyhoi peaks, both American and Canadian, Church Mountain, Shuksan, and Baker in all their majesty. But a heavy mist shut out all this wild beauty for the large party which made the climb on the second day.

Our next move led us over the famous "skyline" to Hannegan Pass, and proved to be a near Waterloo for the hapless cheechako. Our committee decided to skirt around the shoulder of a spur of the Skagit range, and after traveling along the skyline for some distance drop down to the Ruth Creek basin where a trail led up over Hannegan Pass. That morning the mists rolled away and Providence handed us out its best brand of sunshine and clear skies. Right blithely did the party set forth at seven o'clock sharp. Little recked they of the rich and varied experience many were to gain on that skyline.

At first the plain trail looked harmless enough and led us on our way rejoicing. But all too soon it forsook us for greener fields. We soon mounted up to more ambitious heights over the glacier draping the shoulder of the spur at the head of Swamp Creek, thence up a treacherous heather slope to the skyline. Here we were richly rewarded by our first fine clear view, a panorama of snowy mountain ranges all broken into rounded domes and jagged spires. The Ruth range lay on our right beyond the green basin along which lay our



TWIN LAKES

L. F. Curtis

Taken from a point about a hundred yards west of Mountaineers' camp at the outlet of the lower lake and looking northeast to the mountains beyond Silesia Creek.

*T. C. Smith*

ROCK WORK! The descent from the skyline trail from Twin Lakes. Ruth Creek winding for four tired miles to the haven of Hannegan Pass Camp.

trail to Hannegan. We lunched in a fresh velvety meadow and enjoyed the lovely prospect. Then came the long zigzag descent down the dusty, rocky hillside to the creek basin. It was tiresome work for a seasoned sourdough. Falling loose rocks made it necessary to divide the party. A few straggling microscopic strawberries were our only comfort during periods of waiting under a pitiless sun.

In course of time we reached the bed of the canyon below by way of a dry stream bed and now worked our way through a tropical growth of devil's club, nettles, and barren huckleberry bushes and finally set off up the muddy, but cool and shady trail to our camp site just below Hannegan Pass. Some of us were a long time in reaching camp, but reach it we all did, even though the hour was late and feet were blistered and weary. And never did a party show finer spirit than did our tired and sore cheechakos. We were that proud of them! After all it will not be the dust and stones that will remain



NORTHEAST SIDE OF MOUNT SHUKSAN

L. F. Curtis

Taken from the east end of Ruth Mountain ridge at an elevation of about 7,000 feet. The hanging glaciers under the perpendicular rock wall are at the head of the North Fork of the Nooksack River. The great glacier in the center is made up of myriads of shapeless ice masses clinging in unaccountable fashion to their rock bed. No approach to the mountain seems possible on this side.

longest in their memories but the thoughts of the hot soup and tea sent down the trail by Tom and the refreshment committee and that delectable slice of pineapple at the journey's end. There had been fifteen miles of hard trail for the pack animals so the night's rest was a welcome one to all.

And Hannegan Pass! We shall long remember it for its beautiful setting of snow-crowned mountains, and dark forest ridges, its fairy-like moonlight and perfect skies. All that prodigal nature could bestow was lavished upon us without stint. The morning breeze which stirred the heather bells was soft as that of an April morning. There were little lakelets, a sparkling stream, and a splendid splashing waterfall, and we bathed, rested, and did laundry to our hearts' content. There was climbing and fishing and visiting for three happy care-free days.

The side trip up the snowy spur of Ruth Mountain rewarded us most generously for little effort. Here were rugged peaks rising in chaotic confusion and concentric masses all around us. In the distance the majestic summit of Glacier Peak lay dim against the sky. Just enough snow lay on the glaciers and green heights to enhance their beauty.

On that day we had our best view of great old crag-turreted Shuksan. But the gigantic crawling glaciers scarred with seracs and mighty crevasses which lay between the dark frowning cleavers, and the slender sheer pinnacle girt with swirling clouds held out little encouragement. It seemed invulnerable. A spur of Granite Mountain afforded much the same wonderful picture of Shuksan and we decided we didn't care to attempt that north side.

A splendid camp fire closed our last day at Hannegan and another Monday saw us off on the trail again for Austin Pass. We were obliged to make a second one-night stand at Shuksan. On the second day we climbed up through another forest dim with great trees hung with moss and trailing vines to the pass. It lies to the south of Shuksan camp and the bench mark gives an altitude of 4,630 feet. We camped a short distance below the top of the pass and in our journey passed from tropical to arctic temperature.

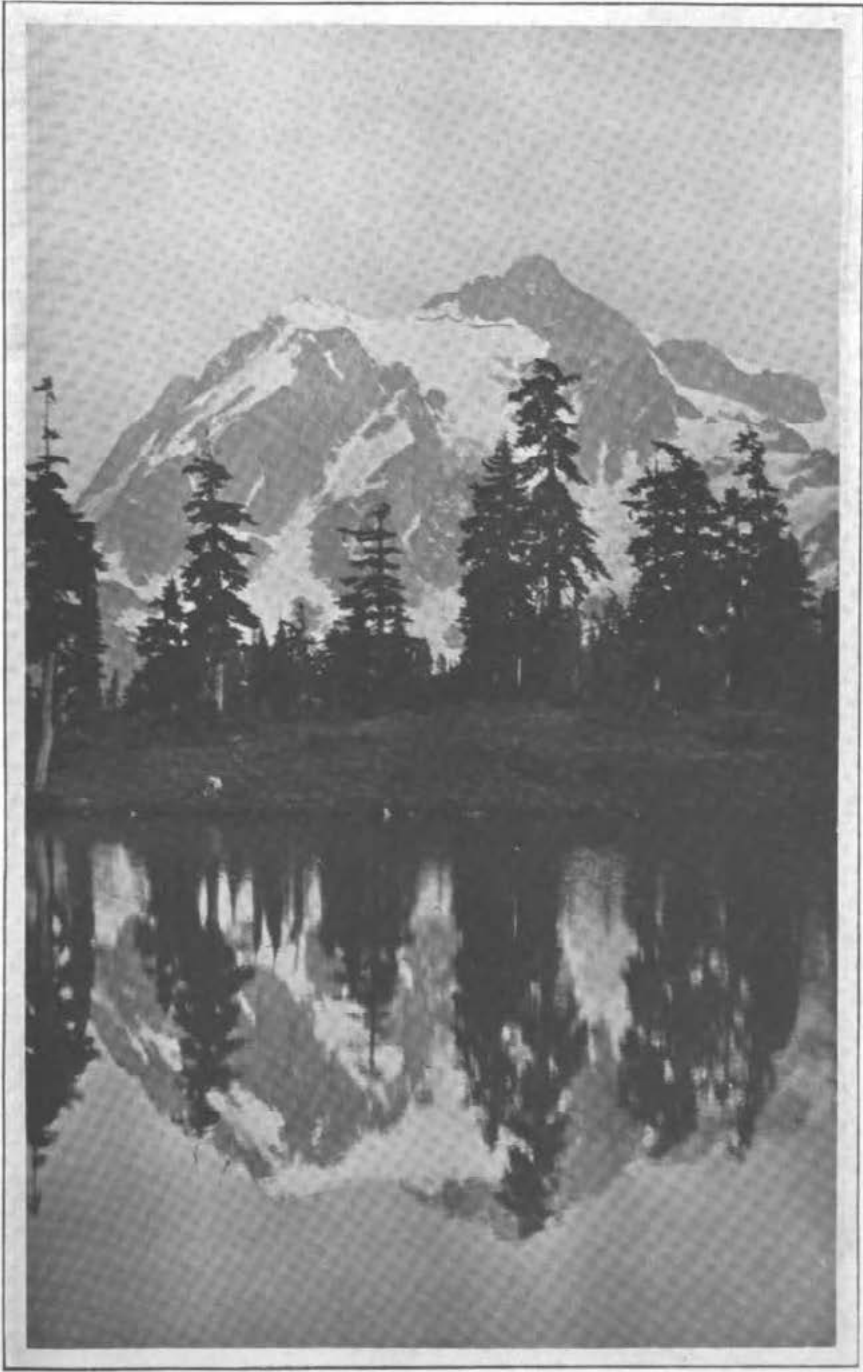
The trail was difficult for the pack train, so volunteers were called for and this call met with a hearty response. Austin Pass was to be our longest camp and from here we planned to make both big climbs. The camp site selected was an open, rolling meadow, abounding in clumps of fir and hemlock, clear little lakes and streams, encircled by noble mountain peaks with Mazama Dome and Table Mountain on the south and now close at hand on the east the forbidding rock walls of Mount Shuksan, re-echoing with the roar of the avalanche. A sharp wind swept over the pass. Camps were spread out over a

wide area, many seeking the shelter of a hillside or improvising for protection windbreaks of green boughs. A large camp fire with many small private ones in the different quarters by their cheery warmth helped to dispel the damp cold and to promote sociability.

We were now joined by Mr. W. M. Price with his wife and sister. He, in company, with Mr. Asahel Curtis, made the first recorded ascent of Mount Shuksan in 1906, and now consented to accompany the party and point out the route which Mr. Curtis and he had taken. The return of the scouting party on the second evening was anxiously awaited at camp fire. It was difficult to carry out any kind of a program, for that expectant, half fearful feeling that precedes an unknown experience pervaded the atmosphere. They returned with a favorable report of the route.

The following early morning gave promise of a fair day but later the weather became unsettled. Everybody stood anxiously scanning the sky in the region of Mount Baker. At ten o'clock the clouds seemed to be shifting in the right direction. Shortly afterwards a party of thirty accoutered with packs set out under the guidance of Mr. Curtis, Mr. Price, and T. C. Smith. We were accompanied by a large retinue of friends and well-wishers who preferred a damp but safe camp to Shuksan's doubtful hospitality. As we crossed the pass and dropped down into the trailless brush we were left to our fate. The clouds now rapidly returned and a fine mist set in. When we reached the rim of the deep canyon which had to be crossed to reach our temporary quarters, a halt was made for lunch and further weather developments. Temporary camp was to be on a high grassy bench on the southeast shoulder of the mountain. From our halting place we could dimly trace the rapidly ascending course as it zigzagged through trembling waterfalls along an apparently sheer wall to the distant skyline. Gradually the mist shut out the precipitous rocks and pinnaled glacier of the mountain, then even the lovely green lake with its icy mantle below, and at four p. m. it was deemed best to pack up and return to camp. Tinker, our Glacier acquisition and general utility man, went ahead to herald our return and engage thirty extra plates for a hungry band. So we all arrived at six o'clock, tired, wet, hungry, and disappointed but glad to escape the discomforts of a wet night on a steep hill slope.

A leaden, drizzling, disconsolate day followed. We beguiled our spirits by welsh rarebit, bridge, and Kipling at roaring camp fires and never did we lose faith in the belief that every cloud has its silver lining. The next morning looked more promising so we set out again, with ranks slightly decimated, in two sections consisting of members with and without packs. The valiant back packers blessed with strength and indomitable love for sleeping bags preceded Company Two by an hour. At the gorge the two parties joined forces and



W. H. Anderson

IN NATURE'S MIRROR

A quiet mountain lake which stills in its depths the menace of bold Shuksan's sheer walls and grinding avalanches. The west side of the mountain as seen from Austin Pass.

all reached Temporary by six o'clock. Here we found level ground, dry wood, and water. Soon a rousing fire was made and supper was under way. Being a partial advocate of the sleeping bag I am not at liberty to pronounce judgment on the advantages or disadvantages of a bedless night by the fitful fire. Suffice it to say there were no casualties, and no morning call was necessary, for there was an uninterrupted series of risings throughout the night. Breakfast seemed to be well under way at two o'clock. Having partaken reservedly, we set out at five a. m. over a few remaining steep heather benches to the snow line. Then we followed the steep rock ridges crossing short snow slopes whenever possible. With but little difficulty we gained the upper snow field, with the help of our careful guides. We were now on the southeast side of the mountain and crossed by an easy and direct path to the upper pinnacle. Here the beauty of the mountain view was most impressive. The dazzling whiteness under foot, the sheer cliffs and craggy isolated turrets at times obscured by rising cloud billows, the shadowy boundary line of blue or white flecked peaks and above the deep, deep sky was a never-to-be-forgotten picture.

At the base of the pinnacle our difficulties began. A parallel series of chimneys seemed to lead to the summit. We started to climb up the least formidable looking one. It proved to be a base deceiver for the upper part became insurmountable after a stiff toe and finger climb. At this point company formation practically ceased and various routes were employed to cross over into the right chimney. With some use of the rope the whole party crossed and reached the summit by three o'clock. It consists of a narrow knife ledge with one end slightly higher than the other. Here we found the rock cairn built by Mr. Price and Mr. Curtis ten years previous. A jelly glass contained the small slip of paper with two names and date, the only recorded ascent. Others have claimed a successful ascent of Shuksan and some members of the party thought they saw a cairn on a lower pinnacle but no personal investigation was attempted. We carefully pasted the historic record in the new Mountaineer tablet of 1916 and laid our brass cylinder in the rock cairn.

Rapidly rising clouds now necessitated a speedy descent and reluctantly we started down our precarious path. While the view from the summit of Shuksan is superb, affording as it does much the same sweep of country as that on Baker, yet we found it somewhat inferior to the latter owing to the shifting clouds, hazy atmosphere, and lower altitude. The mountain is 9,038 feet high. Its exceeding precipitousness makes it impossible to get a view of the wonderful hanging glaciers as we saw them from Ruth Mountain or from the rim of the canyon below temporary camp.

The descent was hazardous on account of dislodged and falling rocks. Ropes were used to advantage on the steep snow fields, below

which the descent was without difficulty. However, such care had to be exercised at every step that progress was slow and it was seven o'clock when we reached base camp. Thankful for the extra supply of rice, soup and tea we spent the night here and returned to permanent camp the next morning. Twice along the road we were met by relay refreshment committees with warm food and drink. The Mazamas say that all selfishness disappears at six thousand altitude. If any one doubts it, let him take an outing with the Mountaineers!

Only six more days of our scheduled time remained so we were obliged to start out on the Baker climb the very next day. At noon a party of thirty lined up for the temporary camp near Coleman Peak.



A. H. Denman

A BAKER SUNSET

Mount Baker darkened by the shades of evening. From temporary camp in the foreground, the Mountaineers watched the fading gleams of the western sun.

Mr. Curtis and Mr. Collins had done some scouting on the mountain while we were climbing Mount Shuksan and we were promised more crevasses than we saw on Mount Rainier's snow fields in our ascent the previous year.

We struck out over the snow at the head of Wells Creek basin and from our trail we could look down at the site of the old Mazama camp which some of our members back at camp visited on a side trip. In four hours we reached the ridge of something over six thousand feet

in altitude and made our base camp in a grassy little oasis provided with a few scrubby firs and a small snow field. The evening was warm and balmy and we enjoyed a wonderful sunset. Near at hand rose Baker's glistening white double cone and just opposite us the Mazama glacier broken by numerous crevasses. Again the great peaks loomed around us like the waves of the sea. Glacier Peak and Mount Rainier both stood out clear cut on the horizon line dyed in turn with the rose, silver, and soft gray-blue hues of the deepening twilight. In the midst of such beauty sleep seemed a desecration. But there was work ahead next day and we reluctantly sought our sleeping bags to be awakened all too soon by a dawn as lovely and ethereal as the preceding sunset. A sumptuous breakfast consisting of ham or bacon, soup, tea, and four prunes each, delayed us till nearly six, when we formed in three companies and started off over the lower snow fields of the Mazama-Glacier traveling in a southerly direction until we reached the cleaver separating the Park and Boulder glaciers. The ice fields were covered with a fresh soft mantle of snow and we had good footing. Numerous crevasses yawned open around us in a forbidding manner. Many displayed great depths through their icicle-fringed jaws.

At half past ten we were on the cleaver with the saddle directly above us. Here we had lunch and after a short rest resumed the climb practically over the old route taken by the Mountaineers in their previous ascent of Mount Baker in 1908. The slope now grew much steeper, the zigzag course ahead looked longer and more perilous and the narrow bridges across some of the upper crevasses were not particularly inviting. We swung over from the saddle towards the rock wall on the right. Far below us lay a great stretch of glittering snow, its surface scarred with crevasses. The smaller cone dropped below. We could see the smoking crater at the base and sniff the sulphurous fumes rising from its black depths. Just ahead loomed a magnificent white snow cornice gracefully bending its shining crest towards us. A few more switchbacks and we were on the topmost ridge. Here we saw a smooth plain of snow of considerable area with a lower slope inclining towards the southwest. Fresh tracks indicated the presence of another party which had visited the summit an hour earlier from the Bellingham side. A small flag in the snow marked their register.

Now came the work of registration and the camera. A stiff wind caused us to think longingly of the coats we had cached below on the rocks. Then we looked around at the world below us. In every respect the view from the summit of Baker is one of the most satisfying of all western mountains. It commands water, mountains, and plain. Off towards the west lay the blue haze of the straits and the sharp line of the Olympics lifting up driven snow-capped crests. To the north rose the great Selkirk range, and all around the broken ramparts of

the Cascades with Rainier towering out of its base of clouds like the Japanese Fuji. Shuksan's jagged spires now shrank to a place of second-rate importance. Smoke arose from the plain where mortals dwelt and toiled. Not a cloud marred the dazzling blue of the sky.

Shortly after two we began the descent, a little over half an hour after reaching the summit. The snow, now quite soft, afforded excellent footing most of the way down except where the ice lay close to the



A. H. Denman

**FROM THE BAKER
RIVER TRAIL**

Looking to the left the eye rises from the sweeping river past bank, forest, and foothill to the pure outline of Mount Baker.

surface. Sliding was safe in several places, so we made very good time. On the lower slopes we could walk along freely and rest or visit at our ease. The shadows were lengthening when we caught sight of camp. Over the last snow fields a jaded but happy company wended its way up to the little green ridge where the savory odor of tea, tomatoes, and soup greeted our nostrils.

We were secretly rejoiced to spend one more comfortable night on Coleman Ridge, satisfied and happy in the consciousness of our success, thanks to the splendid generalship of our leader, Mr. Curtis. The return to Austin Pass was made early next morning.

Those who remained in camp made several side trips, a most interesting one over to Galena Lakes, which they pronounced very beautiful.

On the morning of August 25th we left Austin Pass on our return journey. Travelling south over a road variously estimated at twelve, fourteen, and fifteen miles we made a one-night camp on Baker River a short distance east of Baker Lake. En route we crossed Swift Creek and descended along Shuksan Creek past several small tributaries to the junction with Baker River. As we descended to a lower altitude we felt the heat more and more. Not a breath of air stirred



A. H. Denman

FROM THE BAKER
RIVER TRAIL

To the right the river directs the vision to the more rugged hills and passes beneath Mount Shuksan.

the thick foliage. Fortunately there was shade the greater part of the way and all reached camp in good time. During the evening various members of the party inspected the fish hatchery at the lake and admired the splendid sunset and the reflections of Baker and Shuksan in the lovely clear sheet of water. Others went fishing or swimming. At camp fire we got out a very creditable edition of our annual newspaper.

The following day's fifteen-mile walk lay along the east bank of Baker River through another matchless forest disclosing at intervals glimpses of trembling green waters and snowy peaks. Within two and one-half miles of Concrete we made our last camp and enjoyed a unique vaudeville performance amid the giant mossy trees and trailing

vines. At Concrete next morning we regaled ourselves on such fruits and confectionery as the sleepy little town could offer on a Sabbath morning while we were waiting for the train which was to bear us back to prosaic civilization. Space does not permit a detailed account of the pleasant camp fires with their jolly songs and original verse, or the many instances of hearty co-operation, good will, and unselfish spirit manifested. I know that all unanimously and enthusiastically agreed that in point of management and esprit de corps, in beautiful country, and interesting climbs the Tenth Annual Outing of The Mountaineers was a great success. And we shall treasure through all the years priceless memories of those majestic pinnacles, glistening snow fields, trembling cataracts and melting sunset glows which are old and yet ever new in our hearts.

MEMBERS OF THE OUTING

Outing Committee: Leslie F. Curtis, chairman; T. C. Smith, W. G. Collins.		
*†Helen D. Anderson	* G. D. Emerson	Mary Mudgett
Ruth F. Anderson	* Mrs. G. D. Emerson	* W. M. Price
*†W. H. Anderson	*†Ruby Entz	* Mrs. W. M. Price
†Winona Balley	*†Mrs. L. R. Frazier	†Lulu Raper
†Edna Burroughs	* Hannah Hall	*†Wm. B. Remy
Crissie Cameron	*†Mary L. Hard	†Sophie L. Schnelder
†Margaret Campbell	†Margaret Hargrave	†L. L. Small
*†Whit. H. Clark	* Bernice Hart	* T. C. Smith
†Mrs. Whit. H. Clark	*†J. T. Hazard	*†E. B. Stackpole
W. G. Collins	Mrs. J. T. Hazard	*†Luella Todd
Mrs. W. G. Collins	†Harriet E. Heath	H. S. Tremper
*†Edgar E. Coursen	†F. P. Helsell	Bertha Tremper
Inez H. Craven	* Grace E. Howard	*†Geo. H. Walker
Catherine Crayton	Nancy E. Jones	†Florence Wall
†Leslie F. Curtis	*†Gladys Kellett	†Nell Waller
Augusta M. Deckman	†Elizabeth Kirkwood	*†Inez Wynn
*†A. H. Denman	†Ida Rose Kratsch	* Herbert Tinker
H. B. Densmore	*†Mabel E. McBain	†John McCoy
E. O. Eckelman	Edmond S. Meany	

* Climbed Mount Shuksan—25.

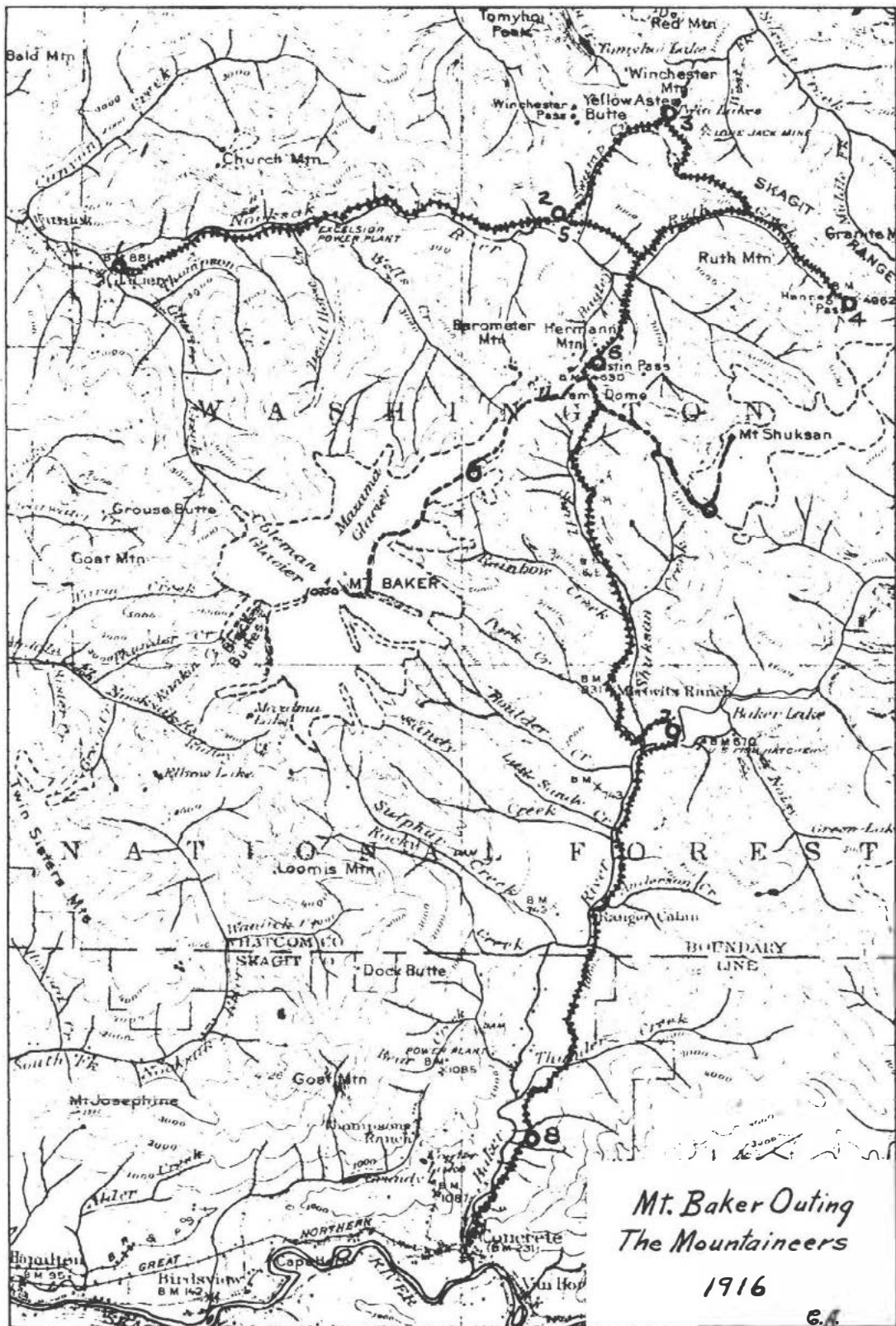
† Climbed Mount Baker—30.



H. W. Plyter

THE SOUTH SIDE OF
MOUNT SHUKSAN FROM
PTARMIGAN RIDGE

Austin Pass is near the low place in the ridge at the left. In climbing Shuksan the route led from Austin Pass down Swift Creek a short distance, over the ridge that cuts Mount Shuksan in the right half of the picture, down into the deep gorge that separates this ridge from the mountain proper, up to the skyline and along the snowfield barely visible on the horizon approaching the summit pinnacle.



DRAWN ON THE MOUNT BAKER QUADRANGLE. U. S. GEOLOGICAL SURVEY, BY CHARLES ALBERTSON FROM RECORD MADE BY L. F. CURTIS.

EARLY EXPLORATIONS ON MOUNT BAKER

(Compiled from the records of the Mount Baker Club by Mae Webster and Winona Bailey)



HE expectation of five years' solitude and exile was about to be realized, or else delayed until another season had wearily come round." This sentence, written by Edmund T. Coleman, describing his feelings on the eve of the first successful climb of Mount Baker, reveals the unwavering determination and perseverance of a true mountaineer. An Englishman, with a climbing record in the Alps, Mr. Coleman took residence in Victoria, Vancouver Island, probably in 1864, with the avowed purpose of climbing Mount Baker. In 1865 he got fifty miles up the Skadgett (as he spells it) but had to abandon the trip owing to the opposition of unfriendly Indians. In 1866, in company with Messrs. Tennent and Bennett, he reached the overhanging cornice of ice near the summit of Mount Baker, but was unable to make a way through. Further attempt was prevented by lack of time and provisions. In 1867 he could not make up a party. In 1868, however, he made a third attempt, leaving Victoria on August 4 and crossing by canoe to Bellingham Bay. His account of this trip, under the title "Mountaineering on the Pacific Coast," was published in Harper's Magazine (Vol. XXXIX, November, 1869) and from that article the quotations that follow are taken.

The party included, besides Mr. Coleman, Thomas Stratton, Inspector of Customs at Port Townsend, David Ogilvy of Victoria, and John Tennent, a rancher near Bellingham Bay. They employed four trustworthy Indians, of whom Mr. Coleman says, "We cannot forget the expertness displayed in many difficulties by Squock and Talum. Squock is son-in-law of Umptlalum, the principal chief of the Nooksak Indians. Though a Flathead, Squock is very handsome, and with his swarthy face and long, thin limbs, resembles an Arab."

Taking a month's provisions the party traveled by canoe up the Lummi River—now called the Nooksack—past Umptlalum's "mansion" near the present town of Deming, then took the Middle Fork to what is now called Thunder Creek. Here canoes and extra supplies were cached on August 11 and the entire party proceeded on foot. On the 14th they named two magnificent rocky peaks "Lincoln" and Colfax." The final climb on August 17 was made from an encampment at 7,054 feet elevation by Coleman's aneroid. The Indians went no farther.

"The route lay through more than five miles of névé. This was intersected by twenty-seven great crevasses. These were so close that sometimes they were not more than five yards apart. . . .

The slopes of snow became very steep as we approached the shoulder of the main peak. . . . At length we stood on the base of the principal peak. . . . On our right across a hollow filled with névé is the lip of the crater, indicated by a huge triangular shaped rock; and on our left are tremendous precipices extending down to the track of the névé we had traversed in the morning. Around the summit of the peak is a perpendicular wall of ice about thirty or forty feet in height, terminated on the left or northern end by a knuckle of rock which can be plainly seen from the Sound. The only passage we could discern through this barrier is on the left, between the knuckle of rock before mentioned and the wall of ice. The face of the peak is scored with deep furrows made by the avalanches of ice which have fallen from the summit. The peak rises about 1,000 feet higher. It commences on a gentle slope and gradually becomes steeper until near the summit it is about 60°."

"Roping ourselves together we now attempted this and soon found it necessary to use the axe. Some fresh snow had fallen but had not had time to become consolidated with the ice beneath and could not be trusted. We had thus to cut steps. The axe was passed on to Stratton, who plied it with vigor and skill. While thus engaged he got a great fright. Having heard a dull, grating sound, he looked up, and saw a mass of frozen snow, about twelve feet square, moving down toward him. Paralyzed with terror, he was about to warn us, when it fortunately stopped. Even at this height there were crevasses. Into one of these Tennent sank, but managed to extricate himself. The work of cutting steps is very severe, and our progress was necessarily slow, for some 350 required to be cut. . . . As precipices extended downward from our feet, a single false step would have been fatal. In safety, however, we passed the most dangerous point, and reached the passage, which, by a gentle ascent of thirty or forty feet brought us to the summit. It was now four o'clock. We had been two hours making the final climb. The plateau on which we stood was about a quarter of a mile in diameter, and embraced an extent of about eighty acres. The scene was grand in the nakedness of its desolation. The white surface of snow was unrelieved by a single rock. The forests had been on fire for weeks, and a dense pall of smoke veiled the surrounding scenery from our view. It lay like a reddish cloud beneath us. We felt cut off from the world we had left. Overhead the sun poured down his bright beams from a sky which formed a dome of purplish blue, unsullied by a cloud. We felt at heaven's gate, and in the immediate presence of the Almighty. My companions, to whom for the first time this wonderful scenery was unfolded, were deeply impressed. The remembrance of the dangers they had escaped, the spectacle of the overwhelming desolation around, effects of the terrible forces of nature which had been at work, these combined evidences of Almighty power



GLACIER

GRANT PEAK

COLFAX PEAK

LINCOLN PEAK

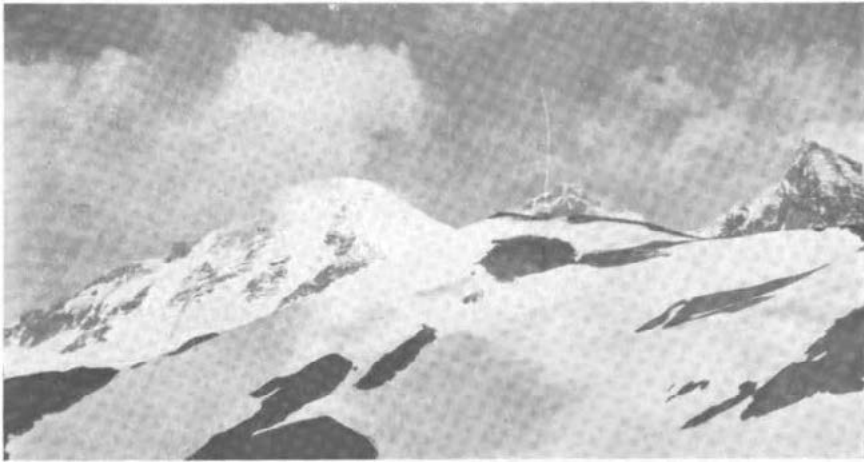
GENERAL VIEW OF
MOUNT BAKER FROM THE BASE

Reproduced from a woodcut published in Harper's Magazine for November, 1869, from a pen sketch by F. T. Coleman. Notice the indistinct marking of Pumice Stone Pinnacle on the left slope of Grant Peak and then the same rock in black in the photograph on the opposite page. Compare also the knob on the left side of Lincoln Peak shown in each picture.

filled their hearts with deep emotion and awe. The spirit of the Gloria in Excelsis burned within us. With one accord we sang the familiar Doxology."

"We now advanced to the center of the plateau, and all laying hold of the flag-staff bearing the Stars and Stripes we planted it firmly in the snow, and named the peak after General Grant. . . . The only object that broke the monotony of the scene was another and smaller peak, at a distance of about 500 yards. As it was possible that it might be a few feet higher, I proposed that we should also plant a flag there. We accordingly marched up to it, and placed a flag, naming it after General Sherman. We found, however, that they were both of the same height—10,613 feet. . . . The thermometer stood at 40° above zero, Fahrenheit."

"While making these observations with the barometer and sketching the two peaks, my companions left to make a reconnaissance. They approached the southern side of Sherman Peak, and observing a slight depression, ventured down. Here they got a glimpse of the crater. As far as they could make out it was 300 yards wide, and appeared to extend under the northeastern side of the Grant Peak. It is therefore not impossible that the greater part of this peak may disappear in the next eruption. Stratton described the spectacle as one that made



Spraguc, Bellingham

COLEMAN GLACIER GRANT PEAK COLFAX PEAK LINCOLN PEAK
 GENERAL VIEW OF
 MOUNT BAKER FROM
 SNOWFIELD ON WEST SLOPE

A modern photograph from almost the same view point as the sketch on the opposite page. Mr. C. F. Easton of Bellingham is authority for the statement that the exposed lava formation on the face of Grant Peak, seen in the photograph but not in the drawing, is an area denuded in 1906 simultaneously with the San Francisco earthquake. The broken face is now too abrupt to accumulate snow and is therefore still mainly bare. Between Lincoln Peak and the upper rim of the snowfield in the foreground lies, deep down, the Thunder Glacier.

him shudder—black walls of rock with streaks of sulphury yellow blending with green and red. No traces of fire were visible by daylight, but smoke was plainly observed.”

“Before leaving, Stratton deposited a piece of copper with the names of the party at the flag on the Grant Peak. As a true knight-errant, he also left there a photograph of a lady who had interested herself in the expedition.”

They made a hazardous descent, not reaching their Indian companions until 11 o'clock.

There is no record of any attempt to climb Mount Baker from this time until 1884, when Mr. W. H. Dorr and a friend made a prospecting trip from Lynden to where Glacier now is, then over Skyline Divide to Wells Creek. They had been told by a Nooksack Indian of a place where gold could be found at the foot of Kulshan, and following a rude map sketched in the dirt by the Indian, reached a spot on what they call the longest branch of Wells Creek near where it comes out from under a glacier. The sparkle of glittering mica about the water's edge was disappointing to prospectors. Mr. Dorr writes, “We were probably the first white men to climb Skyline and the first to discover what has since been called No-Name Glacier.” Of their attempt to climb Mount Baker he says, “There was no bad climbing aside from the numerous broad and very deep crevasses but

the rise was rapid, being fully thirty per cent grade on the average. We reached a high point, or spire of lava, overlooking a steaming crater on this northeast slope but we were caught in a snow squall and forced to retrace our steps." This is the first report ever made of a steaming crater on the northeast slope.

In 1891 and 1892 seven attempts were made to climb Mount Baker, all successful but one. The Blaine Journal of July 9, 1891, printed an account of the first of these expeditions. A prospecting party composed of W. H. Radcliffe, J. T. Shaw, E. H. Thomas and Richard L. Smith, of Blaine, together with William Garrett and John Lynch of Sumas, made their way to Roosevelt Glacier and Bastile Ridge. Here some mountain goats were sighted and in hunting them Smith's gun was accidentally discharged, severing an artery in his arm. He fainted and fell several hundred feet before his companions could reach him. His death caused the climb to be abandoned.

The shot that resulted in the death of Richard Smith was heard on another ridge by a party of eight who had left Whatcom on June 27, 1891. This party consisted of V. V. Lowe, Henry Lowe, Ed. Whitstruck, Percival J. Parris, G. W. Smith, Tom Scatbo, Hobert Clark and W. A. Amsden. Seven of them reached the summit on July 3 along the north slope of the western ridge that extends up to the summit of the mountain, the one that can be plainly seen from Whatcom. "As soon as we reached the highest point," says the account of V. V. Lowe in the Whatcom Reveille, July 8, 1891, "our feelings gave vent to huzzas of victory. We dug a hole in the snow and put in two staffs tied together, with an American flag tied on. We wrote our names on a card and placed it in a cigar box which we tied to the staff. We discovered the real crater off to the east (south) of the dome. It is half way between the summit and a peak 2,000 feet away. Amsden and Clark took about a dozen views from the top of the mountain. These were the first pictures ever made with a camera on the top of Baker." This expedition was the first to go in to Mount Baker by one route and out by another.

The first woman who ever reached the summit of Mount Baker was Miss Sue L. Nevin, an artist, of La Conner. Her party included J. O. Boen, Wm. Lang, Chas. Beilenberg, S. W. Bailey, Alex Beilenberg and Robert Woods. They went up the valley of Baker River to Baker Lake. From there they struggled through briery jungle to snow line and climbed on the east side of the mountain. They report the ascent difficult but the descent even more perilous.

The last expedition of the historic year 1891 was made by a party from Seattle consisting of E. S. Ingraham, G. K. Coryell, J. V. A. Smith and Fred Calhoun. They started up Glacier Creek but turned aside up Grouse Creek, finally making permanent camp on Grouse Ridge. Here they were detained three days by a snowstorm but on



GRANT'S PEAK THE SUMMIT

From a pen drawing by E. T. Coleman published in Harper's Magazine, November, 1869. Showing the first climbers planting the stars and stripes on the summit of Mount Baker on the peak they named in honor of the great Civil War general.



Chas. Albertson

GRANT'S PEAK IN 1916

The modern photograph was taken facing northeast, the opposite direction from Mr. Coleman's sketch. The summit of Mount Baker comprises about thirty-five acres almost level, but with a slight depression near the middle and the end shown in this picture somewhat higher than the rest. This summit area is called by Mr. Easton Glacier "13" (page 41).

September 12 reached the summit by way of the divide between Colfax and the main peak.

In 1892 Messrs. J. M. Edson and B. B. Dobbs with Ed. Hoffercamp

and L. P. Palmer made an important exploring expedition of fifteen days from Sumas. They were the first to explore Bastile, No-Name, and Mazama glaciers. They tried a new route to the summit but were unsuccessful because of Pumice Stone Pinnacle. Later, however, July 31, they reached the summit from the head of Glacier Creek.

On August 7, 1892, Joe Morovitz, known as the hermit of Baker Lake, reached the top of Mount Baker alone, the six men who started out with him having all given up. He went up the north side from the head of Rainbow Creek and declares it is the worst place to go up.

During this same summer four employees of the street car company, John Hickok, Jr., Ralph Duxbery, Myron Hawkins and Archie O'Byrne, calling themselves the Street Car Brigade of Fairhaven, climbed the mountain on the east side, going up Park Creek from Baker Lake.

For the next few years but few parties climbed Mount Baker, though Joe Morovitz made seven ascents between 1892 and 1908. In 1906 the Mazamas held their annual outing at the head of Wells Creek. Three men only reached the summit by the north side, the others being stranded by Pumice Stone Pinnacle. In 1908 The Mountaineers encamped near the foot of Boulder Glacier, took thirty-nine people to the summit by way of Park and Boulder glaciers, the first large party that ever reached the top of Mount Baker.

THE ORIGIN OF MOUNTS BAKER AND RAINIER THE INDIAN LEGEND

DR. CHARLES M. BUCHANAN



N the Northwestern Cascades stands Mount Baker, the "Bride of the Pacific," always white-robed. In the Lummi Indian tongue the mountain is called Kulshan—once an active volcano, it is now accounted extinct. Kulshan means "shot at the extreme end or very point." It is not now known how long the mountain has borne this name nor exactly why it was given, but it is very certain that Kulshan has been Kulshan for many generations. One of the most intelligent of the Lummi Indians attributes the name to the fact that the mountain was once conical and that the peak itself was destroyed by volcanic eruptions and explosions. The summit is not now conical. The name Kulshan is applied to other things than the mountain—any object that is long, slim, or tall becomes "Kulshan" when shot at, struck, and affected at the end.

In the olden days, so the old folks tell us, Kulshan was a fair and handsome youth who grew apace to man's estate and then espoused two wives. One of these wives fully equalled her husband in beauty—she was the favorite wife and her name was Düh-hwähk. She bore

Kulshan three fine sons. The other wife was no match for Düh-hwähk in beauty but she was very amiable, very kind, and very attractive in manner. This wife was named Whäht-kwäy. Eventually it came about that the kindness and consideration of Whäht-kwäy so completely won over her husband that she supplanted Düh-hwähk in the affections of Kulshan. This, of course, aroused furious fires of jealousy and resentment in the breast of Düh-hwähk, who constantly kept the entire household in dissension and strife by means of her temper and her jealousy. Finally Düh-hwähk resolved to regain Kulshan by artifice. Relying confidently on her beauty and on her former firm sway over her husband she conceived the plan of feigning to desert him. So, one day, when it happened that by chance she found Kulshan in amiable and mellow mood and more pliant to her purpose, she complained to him of the coldness and harshness with which she, Düh-hwähk, had been treated in the household, even more by Whäht-kwäy than by Kulshan. She assured her husband that she loved him but that the burden was more than even her great love for him could bear and that unless he soon changed these conditions she must leave him and take with her all of her possessions. Kulshan resolved to be master in his own household and without hesitation informed Düh-hwähk that she could go as soon as she chose and as far as she liked. Düh-hwähk was dumfounded by this unexpected reply. She felt that she must make things appear to him in a more serious light. She felt confident of his love and sure that at the last Kulshan would relent. Indeed, she could not believe that he would really permit her thus to desert him. Founding her faith in this imagination she gathered up her possessions and made ready to go at once. She prepared her pack thoroughly, putting therein plentiful supplies of berries, fruit, sweet bulbs, and even of beautiful flowering plants of many varieties. Thus amply provided with all that she desired she then said farewell and fared forth, leaving her three children behind. The children bewailed the going of their mother and with many lamentations besought her to remain. This greatly pleased Düh-hwähk at heart for she now felt assured of melting the indifference of Kulshan. She was sure that he would call her back before she had been able to go any very great distance. With this in mind she managed to set forth on a course that would take her the longest way. So also she traveled down the valley between the mountain ranges so as to be always in sight of Kulshan as long as possible, thinking to give him ample opportunity to recall her. She had not gone far, however, before she realized her mistake and richly repented her hasty action. So, as she went along, she would ever and anon look anxiously back. Her heart surged tumultuously with a fond hoping and a vain longing to see Kulshan wildly signal for her return—how she hoped that he would do so! Alas, she had gone too far for that, perhaps, and, besides, many

little hills and valleys now intervened between her and home where she had left Kulshan and the weeping children. Therefore she must needs climb the knolls and pick out the highest hills from which to gaze back with longing eyes and sinking heart. Standing on the very summits of these hills she would strain with all her might, up to the very tips of her toes, seeking some sign from her loved husband. Sometimes she fancied she was not quite high enough and she would raise to her tip-toes and stretch forth her head in anxious gaze, yearning all the while and striving all the while to be just a little taller. This oft-repeated wish and effort soon began to have its effect upon her and she forthwith began to grow taller. At last she had gone so far that she must of necessity make camp. She selected for her stopping place one that seemed most satisfactory to her because from it she could have a clear view of her dear home so foolishly and uselessly abandoned. Here she removed her packs and cast the contents broadcast, blessing the place with all the stores of fruit, of berries, bulbs, tubers, and beautiful flowering plants of many wonderful varieties, all of which she had taken away from Kulshan. There, looking ever and longingly northward, Düh-hwähk remains to this day and you may see her if you wish—look to the south and east—it is Mount Rainier! Therefore we know why all these beautiful things abound about Mount Rainier where Düh-hwähk cast them forth before she herself became the mountain. To the north lies the deserted husband, Kulshan, robbed of fruits and the beautiful things which Düh-hwähk took with her. Look to the north and you will see him, but the white man calls him Mount Baker, not Kulshan! All about Kulshan, too, you may see the deserted and weeping children.

In time the faithful Whaht-kwäy felt the premonitory pangs of childbirth. She yearned for the comfort and company of her people, and especially the advice and assistance of her old mother. None other than that old mother could give the needed care in the hour of trial. Kulshan listened to the pleadings of his faithful wife and yielded to them. Full well he knew, however, that the journey would be a hard one for Whaht-kwäy if she had to climb the mountains and journey over all the intervening heights and valleys. Therefore Kulshan engaged all of the animals with paws, from the lion to the mouse, to dig a long ditch from his home down to tidewater. This was done until the flow of water from his place was at last sufficient to enable a good-sized canoe to float down in safety. This stream we now know as the Nooksack River—adown it softly floated the canoe of Whaht-kwäy in these olden days when the river itself was new. At last she reached her beloved Hwulch, or Puget Sound, her own country. Down between the many islands the canoe made its way and in passing each of these islets Whaht-kwäy made sure to leave here and there certain

edible things—where they may be found to this day. When Whaht-kwāy at least reached home her parents greeted her fondly and asked her what position she chose to assume. She remembered how the jealous Düh-hwähk had reared herself up, up, up into the air until she became a mountain peak. Whaht-kwāy would not do so. She chose to lie down so that coming people would be able to reach her head without great trouble or without climbing—with Düh-hwähk, alas, it is different. Whaht-kwāy is now an island, low lying, to the north of San Juan Island. Whaht-kwāy is now better known by the name of Spieden Island and just a little north of it is the baby island which was born after Whaht-kwāy reached this place. At present all of the small islands between Kulshan and Whaht-kwāy bear the names of fish or some of the other edible things that Whaht-kwāy placed there as she passed by on the journey home. Many have cause to this day to remember with gratitude the generous thoughtfulness of What-kwāy.

During all this time Kulshan was lonely indeed. Instead of having two wives he found himself with none. All the while he kept straining upward to see if he might not catch occasional glimpses of his departed wives. The children saw him and did likewise, profiting by the example of Kulshan. Today Kulshan and Düh-hwähk are mountains, and the children are the mountains south and east of their father Kulshan. We have told you what the word Kulshan means—but what does Düh-hwähk mean? It means, and how fittingly, “clear sky.” So, too, Whaht-kwāy means a maiden who has just reached womanhood.

This is the story of Kulshan, his two wives, and his many children, and of how they came to be what they are and where they are.



Hann. Bellingham

A LUMMI LAD
OR
A MODERN KULSHAN

O Climb to the Mountains

Words by E. S. Meany

Music by E. E. Courson

Allegro Moderato

O climb to the mountains ye sons of the West Climb climb
climb to the hills Rejoice at the labor O sing with a zest Climb climb
up to the hills Great river and boulder as part of the play A-
rise with the cliff to careers the new day And shout in the dawning Ye-
hah ye-a-hah ye-a-hah (ye-a-hah) Ah-le-a-hah ye-hah (ye-hah)

pp f pp

Copied by Crissie Cameron

O CLIMB TO THE MOUNTAINS

O climb to the mountains, ye sons of the West,
Climb, climb, climb to the hills;
Rejoice at the labor, O sing with a zest,
Climb, climb, up to the hills.
Greet river and boulder as part of the play,
Arise with the cliff to caress the new day
And shout in the dawning,—ye-hoh, ye-a-hoh!
Ye-a-hoh, echo; echo, ye-a-hoh,
Ah-le-a-hoh, ye-hoh!

O climb to the mountains, ye sons of the West,
Climb, climb, climb to the hills.
O joyfully climb to the star-sprinkled crest,
Climb, climb, up to the hills.
When pinnacles beckon with uplifted flags,
Uncovered, salute ye the old friendly crags
And shout back their welcome,—ye-hoh, ye-a-hoh!
Ye-a-hoh echo; echo, ye-a-hoh,
Ah-le-a-hoh, ye-hoh!

EDMOND S. MEANY.



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AN EARLY
MORNING CLIMB

This view combines many features found on snowy Baker: in the foreground, the crevasse; then the dazzling snowfield; the half hidden rock ledge cutting it; the overhanging cornice.



H. W. Playter

ERRACS AT THE FOOT
OF COLEMAN OR
ROOSEVELT GLACIER

Taken at Camp Hellotrope. The wall of rock on the left is Bastille Ridge, and beyond appears Skyline Divide. The mountain is four and a half miles distant and almost hidden. Coleman Glacier proper (known locally as Roosevelt Glacier) does not show at all.

GLACIERS OF MOUNT BAKER

Theory of Origin—Description of Individual Glaciers—With Explanations of Certain Phenomena

CHARLES FINLEY EASTON

Historian of the Mount Baker Club



S to cause and effect, glaciers are a phase of geology. Any statements relative to their origin must be based upon a knowledge of historic and dynamic geology.

The ice-fields of Mount Baker, including those of Mount Shuksan and the Twin Sisters neighboring, are due to the same elementary causes which give rise to all glaciers, but with volcanic modifications of these laws. There were doubtless some glaciers among the mountain tops of this immediate region preceding the appearance of Mount Baker.

This volcanic peak and the related ones are no part of the Cascades; neither can their origin be attributed to the forces which produced the hills and mountains surrounding. Together they mark the place of an uplift and earth rupture of a local character, an area of fire-rocks between the broken, bent, distorted edges of half-melted sedimentary rocks, a district of about 12 by 25 miles in extent.

At one time this whole region was a field of broken, tilted blocks



H. W. Playter

SERACS AT THE FOOT
OF COLEMAN OR
ROOSEVELT GLACIER

This is the "one wing of the glacier" which "by sheer compression is forced up over a precipice where hundreds of acres of seracs are gradually pushed forward and shoved over the cliffs."

of stratified formation, of mountain size, like the bordering country now. Later a part of it was transformed by subterranean heat, the existing rocks either partly or completely fused and, in places, their plastic masses forced upwards into plugs and pinnacles and beetling crags with here and there some sluggish flow of viscous lava. All indications go to prove that the mountain was not formed suddenly but was a gradual uplift continuing till the pent up forces found vents through the surface. There was a slight shrinkage and falling back following the relief of pressure and temporary cooling. After this the growth was mainly eruptive and periodical.

To use a vulgar comparison, the mountain was a great bealing—a terrestrial boil, so to speak—due to extreme and rapid metamorphism of newly-faulted rocks at depth. Chemical interchange of valences released latent heat much faster than its radiation took place. There was consequent inflammation or swelling—expansion of rock substances—resulting in a very gradual uplift and increase of temperature, finally reaching the fusion point. Volatilization of unstable matter produced gaseous compressions. The uplift increased to great elevation and in many ruptured places lava oozed through, the whole surface probably unevenly aglow with heat. The venting of pressure and discharge of material through craters added to the rugged and uneven character by building mounds of sticky lava that either flowed but short distances or piled high into warty knobs.

The building of crater rims of frothy pumice, fragments, ash and sulphur condensations, later on, extended the central peak skyward but there were only a few instances even then where eruptions of melted rock were sufficiently fluid to flow in thin sheets and run far from openings. Hence, *the bedding planes for future glaciers were predetermined by contour and not by erosion* and beyond little question their number and sizes were much the same as they are today.

There has been, of course, and still goes on, a perpetual and rapid erosion, grinding out bottoms and tearing away sides by friction and force of moving ice; but there are evidences, especially among masses of pumice stone, protruding knobs, crags and cleavers, of even more destructful erosion, untouched by glaciers, than is there in the buried portions. Even the denser forms of vitreous basalt and porphyritic exposures do not stand the extremes of temperature, from day to night, like stratified and crystalline rocks. While the bed stones are grinding, the peaks and ridges protruding above the glaciers cleave into characteristic blocks and fragments, crumbling away at an astonishing rate, feeding their substance into the millstones of ice. The original surfaces were of greater altitude than now, but the general character and shape has not been much changed since snow and ice gained a lodgement, except perhaps about Summit and Mazama craters where the more fragile material has largely crumbled away.

It cannot always continue. Subterranean metamorphism and radiation of liberated heat will find their compensations by limitations. The elements in time may smooth over this volcanic peak into a forested hill top but before that day comes there will be other eruptions to temporarily reduce, alter or even obliterate glaciers, for the time being, reconstruct old crater rims and otherwise prolong their existence. The tell-tale moraines show advances and recessions of recent times, like tide lines, unmistakable evidences of variations in dynamic conditions. And two live craters, nominally dormant at present, are proof positive that chemical action is still liberating heat and generating gases.

Fujiyama of Japan is almost a perfect cone and its mantle of snow may possibly be classed as a blanket glacier. Mount Pitt of Oregon is fairly true in conical form and seen in its winter wrappings is an ideal exhibit of the theoretic formation of volcanic peaks and their glaciers, advanced by some scientists, and which may possibly hold true in many instances. Mount Rainier may have been formed into a perfect cone and its first glacier a blanket of even thickness, as claimed for it, the separate glaciers later being isolated by unequal erosion, but this is exactly what did not happen in the building of Mount Baker. One might expect close analogy in manner of formation as well as in time and causation; however, a careful study of the Mount Baker region, during many years of exploration, forces the

conclusion that the first ice accumulations on the heights of this mountain could not have been a blanket glacier. The irregular and uneven topography, greater at first than at present, warrants no inference of that kind.

GLACIER "13"

The glaciers on Mount Baker aggregate an area of forty-four square miles of perpetual snow. There are just a baker's dozen of them, counting for the thirteenth (which is never done) the thirty-five acre tract of level snow on the summit. There is but little movement to this snow field and in this sense it is not a glacier at all. Being most of the time above the clouds, the annual precipitation is light, the greater part of the deep snow being drifted there by high winds. It is bordered by Park, Roosevelt, Boulder, and Deming glaciers.

It was here that Miss Sue Nevin, the first woman to climb Mount Baker, planted her alpenstock with a banner attached to make memorable the occasion. The Mazama record box of 1906 is still in place. Here it was that Edmond T. Coleman, English botanist, writer, artist and mountaineer of the Swiss Alps, making the first ascent in 1868, courteously named the prominent peaks after Civil War heroes and planted the stars and stripes. It was here, too, that *The Mountaineers*, under the presidency of Edmond S. Meany, poet, author, educator, and mountaineer, by a contingent of thirty members, deposited their record August 23, and helped make memorable their outing of 1916.

THUNDER GLACIER

The first glacier discovered and explored at close range is a small one low down on the west slope of the mountain. Together with a small elevated plateau of snow at the head, it forms a wedge between Deming and Roosevelt glaciers. This glacier may be appropriately termed rudimentary in the sense that it may have been originally a part of Deming Glacier and finally segregated by an uplift of frozen basalt known now as the Black Buttes, the most formidable rock exposure on the whole face of the mountain.

The formation to the north of Thunder Glacier and that to the east of Deming, with the Black Buttes between, offers evidence of more or less plastic rock flow, sheet lava in places and masses of breccia which may have been in part at least the product of a single crater; while that stupendous vertical crag-ridge of seamless basalt, between half and three-quarters of a mile in height, appears to be a plug or core bisecting the deep bed of an extinct crater—most emphatically not left there as a remnant of erosion.

This little glacier, like the pages of history, has been marking time by its continuous movements and self succession for centuries, but leaves no traditional reference as to what transpired before the rocks cooled down to a supporting basis for ice. The rocks alone can tell the whole story.

ROOSEVELT GLACIER

This is the largest glacier on Mount Baker. It occupies the whole north and northwest slope. Its gathering ground is half the summit, also down along a cleaver and saddle to the Black Buttes, the border of Thunder Glacier, and, for another three miles, to the west along Grouse Ridge. Its eastern border is mostly along a long line of steep rock walls where it meets Mazama Glacier, but there is really a glacial channel all the way down this side from near the summit, turning an elbow and following Bastile Ridge to the foot. The central portion directly below the main peak is fearfully steep and broken. Edges of snow where it falls away in bergs show a thickness of 150 to 200 feet.

*Sprague. Bellingham*

VIEW OF SUMMIT FROM
BASE OF COLFAX PEAK.
SHOWING LAVA SHEETS

"Here are exposed great overlapping layers of lava varying from two to fifty feet in thickness. There may have been snow fields and glaciers intermittently between the periods of overflow." Thickness of the wall of ice above the lava is over one hundred fifty feet. Colfax Peak, a portion of the Black Buttes, consists of a mass of seamless basalt—"most emphatically not left there as a remnant of erosion."

Here, too, are exposed great overlapping layers of lava varying from two to fifty feet in thickness. Most of these extend only short distances from the top. They had their origin at Summit Crater. It is evident from the thickness and short flow that this lava when ejected was very stiff and waxy and the great number of layers further show that there were many separate and distinct eruptions. There may have been, and perhaps were, snow fields and glaciers intermittently between some of the periods of overflow.

There are huge windrows of moraines on the canyon walls, at the

foot of the glacier, 200 feet or more above the ice. The natural tree-growth is forest size behind these moraines, while there is nothing larger than saplings a few inches in diameter in front. This phenomenon can be accounted for on the theory of avalanches like the one which occurred in 1906 simultaneously with the San Francisco earthquake, or to rise in temperature loosening and advancing enormous areas of snow beyond a normal position.

Roosevelt Glacier has parallel medial moraines, but each from a different source—one in black, another in red, and a third in gray. They have the appearance of miniature mountain ranges interspersed with valleys of white ice. It is known as the Chromatic Moraine.

Near Heliotrope Ridge one edge of this glacier is forced by sheer compression up over a precipice where hundreds of acres of seracs are gradually shoved over the cliffs. From under the ledge of ice comes dashing the picturesque Engberg Cascade to disappear at once beneath the ice stream.

BASTILE AND NO-NAME GLACIERS

The cleaver separating Roosevelt from Mazama continues directly north as Skyline Divide. Where these glaciers part is the place of a blunt wedge with Bastile Glacier, the smallest of all, hanging on the west slope and No-Name on the east. Situated within the border of the fire zone, their bedding planes were established by volcanic action, the same exactly and at the same time as the larger glaciers, but the rocks may have cooled down sufficiently to support snow fields before the larger glaciers were formed.

The north rim of No-Name is the half-fused uplifted edge of altered slate bearing fossil clams and oysters, known as Chowder Ridge. There never was any lava flow in No-Name basin and its ice field partakes more of the nature of small glaciers in general.

MAZAMA GLACIER

Mazama Glacier, in shape, reminds one of a great "barn-door skate" with the head pointed upwards, its rhombic form settled tight against the side of the mountain and its long glistening tail extended far below between the walls of a deep canyon into the recesses of the forest. The big Mazama Crater forms one eye, and a large dark wall of rock near it the other. The head, with the nose reaching almost to the summit, fills the acute angle between Roosevelt and Park glaciers. For a couple of miles due north the right pectoral fin laps flush over to the cliff border of Roosevelt and Bastile glaciers, then, at the extreme point at Hadley Peak, turns back to the body along the Dobbs Cleaver. The left fin extends from the head eastward along the border of Park Glacier outlined by Landes Cleaver (which is the Mount Baker end of the high ridge connecting Baker with Mount Shuksan) to Camp Kiser and there bends northward leading to the body opposite the other fin.

This picturesque specimen does not belong to the Devonian age as the fanciful comparison might seem to imply, neither does it date back to the upheaval of tertiary slates on Skyline and Chowder Ridge where are to be seen the fossil clams of the Miocene; nor is it as old as the comparatively recent fire-rocks. The picture is not always of the same skate but a skate always in the same place. To make the image perfect, the caudal appendage is marked by a great fin. The bed of the canyon has been deluged with pulverized rocks disgorged from under the ice fields. It has filled the floor for about three miles and toward the lower end spreads out, fin-like, into a broad flat channel where the growing trees are deeply embedded in the light-colored glacial wash.

Mazama Crater is not now a funnel-shaped recess and may never have been. It is merely a hot spot on the side of the mountain bounded on the edges and upper side by terrific walls of ice. There is a continual discharge of alum, sulphur and steam, and the warmth from the subglacial streams forms a labyrinth of tube-like aqueducts, grottoes, chambers and caverns under the ice along the irregular floor, which are easily traced the whole length of the glacier from sags on the surface over these thermal water courses.

The debris at the tail of the glacier may have been deposited there at the time of the advance of the moraines of Roosevelt, with later additions that keep it fresh looking. But it could have happened by a series of cave-ins along the ice stream, obstructing the usual flow, then breaking away.

For miles below the crater, after a period of calm weather, there are furrows, gutters and channels like dried-up water courses on the surface of the snow, incrustated with dainty yellow, pink, and lavender shades of sulphur where the heavy vapors roll down the slope.

Light frothy pumice was piled high around Mazama Crater when it was in activity. Pumice-stone Pinnacle as part of this cone is still in evidence.

Every mountaineer has noticed that crevasses as a rule run laterally around the mountain or at right angles to the flow. This is due largely to greater forward movement at the middle than at the edges, pulling the ice apart. The greater the ratio of difference the larger and more numerous the crevasses. On this account Mazama Glacier has more than any of the others and "No. 13" and Table Mountain have less; and Mount Baker more than any of the other volcanic peaks in western United States.

SHOLES, RAINBOW AND TABLE MOUNTAIN GLACIERS

Filling the wedge between Park and Mazama glaciers are Rainbow on the Park side of the ridge and Sholes on the Mazama side. Sholes Glacier appears to be an extinct crater. It is three miles across from rim to rim, is a perfect funnel a half mile deep but has a part

of one side torn away. Before it was a glacier, so to put it, it must have been a near fac simile of Crater Lake, island and all.

Table Mountain is the third one of this group of interglaciers. It is a mile in diameter and occupies the flat top of another volcanic plug of basalt. It is very slowly on the move and debouches to the east over the high vertical wall. This plug is probably the latest of the intrusives.

The conditions are such on Rainbow Glacier that the ice flow is much hurried. Avalanches toboggan the long deep canyon at times.

PARK GLACIER

Beginning with Park Glacier the rest of the way around are Boulder, Easton, and Deming, but there are no more interglaciers. Between Grant and Sherman peaks, a half mile apart, is Summit Crater. Some of the earlier overflows were eastward down the Park side. They extended only part way and mushed out fan-shaped, their lower margin producing Gilisan Reef, more than two miles long, over which the ice of Park Glacier pours like lake ice over Niagara Falls. The river of ice below the reef moves south to Park Creek at nearly a right angle to the direction of the ice flow above.

Forbes, an authority on glacial action, says: "The motion of ice is continuous and tolerably uniform—in short it does not move by jerks." The writer, with a party of three, camped one night in a deep crevasse on the south edge of Park Glacier. They made a bed of thin slabs of lava by flagging the top surface of a large block of ice wedged thirty feet down between the gaping walls of the crevasse—a sort of hammock as it were in the cool shady recess protected from wind! The movement of the ice was alarmingly manifest. About every half minute a decided slipping and jolt occurred, accompanied by a twinging sound, the whole body of ice each time moving apparently a fraction of an inch. Irrespective of authority, it was decidedly jerky.

This intermittent forward movement is easily accounted for in that, here at least, the supporting floor is considerably warmer than the temperature of the ice and being rough and jagged holds the ice from sliding until it thaws away in contact, when the ice lurches and takes up the slack; to be repeated when the compressed ice is again thawed away.

BOULDER GLACIER

The snows of Summit Crater are the source of Boulder Glacier. The total length of it is four miles, a little less than any of the other large glaciers. Following the latest eruptions of scoria, ash, mud, and sulphur, and the filling of the crater with snow, the glacial discharge was to the southeast and the fragile material was pulled down on this side, ground to slime beneath the weight of the ice and washed away. The morainal district is broad at the base but the material in volume is less than one might expect to see. Two large circular openings

*Engberg, Bellingham*

**WEST HALF OF
EASTON GLACIER**

This glacier on the south slope of Mount Baker was named by the Mazama Club at camp fire during the outing of 1909. The name does not appear on the map because of the ruling of the Board of Geographic Names not to adopt officially the name of a living person.

in the snow are always to be seen at the crater where sulphur fumes are emitted and the water which flows from the foot of the glacier fills the air with a stench of mineral odors.

EASTON GLACIER

Easton Glacier is broad and steep. It is one of the major glaciers, about the area of Roosevelt, Mazama, or Park, and equal in size to Boulder and Deming combined. It covers the whole south slope, heading at Sherman Peak, and has its broad base bifurcated by a bold, black, barren cleaver known as Crag View. This formidable pointed rock splits the oncoming ice as the prow of a vessel divides the water. One fork reaches down into the forest but has not yet been carefully explored. The wedge between Easton and Boulder, the sunny side of the

mountain, has scattering clumps of trees, some of them high up on the cleaver standing in snow ten months of the year. The other division of the glacier joins Deming without a cleaver or separating spine, for a long distance down from the crater, till Deming begins to sink into a great defile and runs away to the southwest. Here they part company, Easton diverting its border by piling up moraines diagonally down the slope but not grooving the surface much till near the end, leaving the wedge an open park of great beauty.

Part way across the foot of this half, over a mile in extent and piled exceedingly high, is an enormous terminal moraine (Metcalf Terminal Moraine), a barricade or entrenchment on the part of the glacier against the encroachment of vegetation where the war of the elements is waged for territorial possession.

The face of the mountain is not so uneven on this side. In the closing period, the eruptions from Summit (Crater of fragmentary material, moisture, and ash (or mud), as evidenced in places by extensive deposits of conglomerate or natural concrete, was smoothed over by this breccia to some extent. Crag View, however, is one of the original lumps or extruded plastic masses of fire-rock, bearing about the same relation to the succeeding volcanic deposits as granite and other displaced and intrusive crystalline rocks do to the surface of the earth.

DEMING GLACIER

It has been claimed for Deming that it is the typical glacier of the world. It does not excel in magnitude nor in length but it is a perfect model. It is small enough so it can be viewed from one lookout and magnificent to behold. The wonders of all glaciers are there.

You leave your tent at Camp Gorman, among the Alaska cedars on the eastern or approachable side of Deming Glacier, move leisurely among the open sunny parks carpeted with heather, pass round the shore of an Alpine lakelet or two, notice the projecting ledges of concrete, gather flowers that are new to you, answer the curious whistling of the marmots, see the ptarmigan and



Enuberg, Bellingham
MEADOW POINT OVERLOOKING
DEMING GLACIER

grouse, the butterflies and humming birds, enjoy the bracing atmosphere and limitless views and you are a thousand times repaid for your pains.

Now ascend a gentle slope by easy climbing and you come out on Meadow Point. Extremes here meet. Astonishment knows no bounds. You are suddenly on the verge of a tremendous chasm 2,000 feet deep. A rock thrown into this awful gorge takes ten to twelve seconds to reach the glacier, like a mad foaming torrent, at the bottom. Facing you is the opposite wall. It looks forbidding. Rising up out of the sombre green woodland this wall is crowned with giant fir and hemlock that here give way to scrawny, misshapen, gnarled and twisted shrubs. Higher up, higher than your own lofty viewpoint, turning your eyes heavenward, you behold the Black Buttes and, on up, up, under its canopy of blue, the cold snowy summit.

Lee Promontory, surmounted with thousands of tips and minarets, reaches a half mile higher than where you stand. This is again extended another quarter mile skyward by the "black, jagged, splintered precipices" of Lincoln and Colfax peaks. The marvelous El Capitan is actually tame in comparison!

Under the summit, the broad field of névé is wind-terraced, rent with crevasses, glinted with sunlight and emboldened with shadows. On-coming, converging, heaving, bending, breaking, snapping, and roaring, in broad cirques and wide stretches, down into the deepening canyon, unceasingly move the eternal snows. Over benches and ledges and hummocks and shelves, crumbling to blocks and crushing to fragments and powder, are the rippling and foaming seracs. Drawn into channels, forced into dunes and ridges, hurled over precipices, pulled by the undertow and swept around curves goes the river of ice, for

"Glaciers are winding,
Crushing and grinding,
Hurling their tribute
From dome to the sea."

Dividing at the crest of Portrait Rock, in mid-stream, to your right the glacier comes down to its bed in cascades, to your left it is a roaring torrent grooving out the base of the Black Buttes in a long sweeping curve, uniting again below and throwing the marginals into a showy medial moraine.

From here on, the great river of ice travels slowly down the dizzy depths in long graceful curves, pitching and boiling and swirling, in its own good time, like the whirlpools of Niagara.

"The finger of God hath left an inscription upon all his works." Here it is an open book. "You are worshipping in a vast temple not made with hands." The inspiration is ennobling, heartfelt, and profound.



**MOUNT BAKER FROM THE
UPPER SNOWFIELD OF
MOUNT SHUKSAN**

This jagged minor pinnacle of Shuksan stands in aggressive contrast to the rounded snow dome of Baker. At the left is the approach for the final climb of Shuksan, beyond the right of the picture is the main summit.

T. C. Smith

WILD ANIMALS OF MOUNT BAKER

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MOUNT BAKER and the adjacent region within the radius of a dozen miles may perhaps appropriately be taken as a field sufficiently large for the subject of this article. To encompass all the territory in sight from the summit of the mountain would add to our list many animals not found within the limit just assigned. We are not expected to be interested at present in seals and sea lions, in the Roosevelt elk, the mountain sheep or the grizzly bear. Our field-glass is not presumed to have the power of a refracting telescope. Considered vertically, our field, in a sense, is much more comprehensive. From the broad base to the snowy summit of Mount Baker is a scope of altitude that covers the full width of both the Transition and the Boreal life zones. The deer and the pheasant are inhabitants of the former; the warm-coated mountain goat and the moccasined ptarmigan are representative of the latter.

From the snow-line downward is the realm of the biologist. He generously concedes all above to the geologist, the meteorologist and the hikeologist. Living things, it is true, are seen sporadically above snow-line, but they do not find subsistence there. The species of animals inhabiting the upper altitudes are not numerous, but are of peculiar interest for the reason that they are found only in the Boreal zone, which appertains to high latitudes and high altitudes. When we add to these the more numerous species of the Transition zone below, we find that Nature in the distribution of her creatures has not been niggardly with Mount Baker.

The mammals which we will here consider do not make our list complete. There are a number of minor species which have been omitted pending a better understanding of their status in this field.

The COUGAR (*Felis concolor oregonensis*), elsewhere known as the mountain lion, puma, etc., is popularly regarded as a dangerous animal. Viewed from the standpoint of any other quadruped, he is, decidedly so. His record, however, shows that instances of his actually attacking man are extremely few. Many years ago a cougar was convicted by the newspapers of killing an Indian in Whatcom County. Whether the cougar had a fair trial may be open to question. There is no doubt of his ability to frighten people with his uncanny voice, nor of the singular instinct sometimes shown by the young animals to follow people who seem afraid. At all events the cougar is now so rare in the Mount Baker region that he may be considered a negligible quantity.

The WILDCAT (*Lynx rufus pallescens*) occasionally raids the chicken houses of farmers near the forest areas, and is common at times in certain localities. He is dangerous to birds and beasts not materially larger than himself. Even deer are known to have been killed by him. This little feline is as graceful and handsome as he is fierce. Specimens seldom weigh as much as thirty pounds.

The CANADA LYNX (*Lynx canadensis*) appears but seldom in this region. It is closely related to the wildcat, and much like it in appearance.

The COYOTE (*Canis lestes*, or *C. latrans*) seems quite out of place in this forested region. Still specimens have been taken not far from Mount Baker. The species seems to be increasing in numbers as the timber is logged off.

The OTTER (*Lutra canadensis pacifica*) is found sparingly in the mountains. It was formerly more numerous.

The MINK (*Lutreola vison energumcnus*) is fairly common. This particular sub-species of mink is peculiar to this region and was first discovered in the near vicinity of Mount Baker.

The WEASEL (*Putorius streatori*; also *P. saturatus*) is fairly common, and as in the case of the mink, the type locality of one of our species is but a few miles from Mount Baker. It is quite probable that we have as many as three distinct species of weasel, differing slightly in size and coloration. One species turns white in winter, while the others do not.

The FISHER (*Mustela pennanti pacifica*) in size is more than the equal of a full-grown cat, and is the largest member of the mink family. It is now rare in this territory.

The MARTIN (*Mustela atrata caurina*), like the fisher and the mink, is a fur bearer much sought by the trapper. It is occasionally taken, but in decreasing numbers.

The COMMON SKUNK (*Mephitis spissigrada*) is less common in the mountains than the next species. Mount Baker has the distinction (whether prized or not) of possessing in spissigrada, so the scientists say, a skunk that is not like other skunks. Would we could say that some thornless-rose or seedless-apple inventor had developed also a scentless skunk. But it is not to be. The layman may fail to discover that, though different, this skunk has any better claim to respectability.

The LITTLE SPOTTED SKUNK (*Spilogal olympica*) is about the size of our common squirrel, and if it were only something else than a skunk would be an interesting creature. It frequently takes up its abode beneath the floor of a forest hut, and at night will enter the

cabin like a rat if it can find a crevice large enough. The sleepy landlord is sometimes disturbed by the angry voices of these little varmints as they find occasion to settle family differences while on a visit to his apartment. The little spotted skunk is common in the Mount Baker region.

The BLACK BEAR (*Ursus americanus*) is common in the Mount Baker region. Evidence of his presence is to be found in every mountain meadow and creek bottom. When the luscious dwarf blueberries of the higher slopes are ripe, sweet-toothed Bruin hears their call. Ours is the same black bear that inhabits most of forested North America. Jet black is its typical color, except as to the nose, which is light brown or whitish. In the West the color of this species is variable, being sometimes cinnamon or brown. Cubs of different color are sometimes found in the same bear family. The black form is the one common to this section. The cinnamons are occasionally seen, the brown bears seldom. Ordinarily the black bear is not a dangerous animal—in fact, it is timid and shy. A mother bear protecting her cubs, however, is not lacking in courage, and occasionally a hunter gets killed in proof of this.

The RACCOON (*Procyon lotor pacifica*) is an inhabitant of the region considered but is not common even at the lower altitudes.

The SHREW (*Sorex vagrans*) is a strange little animal that is known to but few people. Most of its life is spent beneath the ground, like the mole's, though it occasionally appears on the surface. It is quicker in its movements than the mole but is much smaller, being only about two inches in length. Its eyes and ears are very small. It would easily be mistaken for a tiny mouse as it darts along the margin of a brook, sometimes taking to the water and swimming across. Yet it is very unlike a mouse, and does not even belong to the rodent order. Instead of having the four large incisors characteristic of the rodents, it has carnivorous teeth. Its prey consists chiefly of worms and insects. Like the mole it does not eat vegetable food. The shrew is a fierce little creature and has been known to kill and devour full-grown individuals of its own kind.

The DOUGLAS SQUIRREL (*Sciurus douglasi cascadenis*) is the common squirrel of our mountains. The stillness that at times pervades our great forests would be quite oppressive were it not for the minor creatures in fur and feathers that break the monotony with their various vociferations. For animation of utterances and nonchalance of manner the squirrel has no competitor. If we were to organize a forest orchestra, we might take the squirrel for our soprano, the gray jay for alto, the pileated woodpecker for tenor, and the dusky grouse for bass. Our squirrel is slightly larger than his relative, the Eastern red squirrel, but grayer in color. In sprightliness of movement and in vocal

energy he differs but little from his Eastern cousin. The Douglas squirrel is not large enough to be reckoned as game by the sportsman. As a cheerful little companion of the forest he is far more valuable.

THE CASCADES CHIPMUNK (*Eutamias felix*) differs slightly from the common chipmunk of the lowlands. At least that is what the authorities tell us. Otherwise we might never discover the fact. This little animal ascends the mountains as high as trees and shrubs grow. It is a common and familiar species. A young chipmunk is easily tamed and makes an interesting little pet.

THE MARMOT OR WHISTLER (*Arctomys caligatus*). Persons acquainted with the Eastern woodchuck can readily accept the whistler or hoary marmot as an old acquaintance. The most noticeable difference between the two is that the latter is slightly larger and of a silvery gray color, the forward half being lighter and the latter half darker. It gets its name, whistler, from its chief vocal accomplishment, which is the utterance of a prolonged whistled note on a high key whenever it apprehends that danger is at hand. It is a short-bodied, short-legged rodent, about twenty-two inches in length, the tail adding seven inches more. A burrow in the ground is its home. It is a hibernating animal. The summers are short and the winters long in the region where it dwells. The proportion of its natural life spent in slumber would easily put it in the class with one R. Van Winkle.

THE SEWELLEL OR MOUNTAIN BEAVER (*Aplodontia rufa rainieri*). One of the least known and therefore most interesting animals, is the one commonly called the mountain beaver. It is strictly nocturnal in habits, and that is why so few people have made its acquaintance. Yet strangely enough it is by far the most abundant species of its size in all this region. The name "mountain beaver" is quite misleading, for it is not even a good imitation of a beaver. Its fur is valueless. It belongs to the order of rodents, and from its size and appearance might be mistaken for a tailless musk rat, though its feet and legs are of stronger build than those of the latter. Its color is grayish brown and it is about a foot in length and weighs three or four pounds. When captured it shows a pugnacious disposition. These animals are gregarious in habit and make their home in the ground, resembling prairie dogs in these particulars. Their colonies often include hundreds of individuals, and sometimes thousands, to judge by their multitudes of burrows. In some instances, where there are sufficient loam, moisture, and plant growth, these colonies will occupy a hundred acres of mountain side, with burrows but a yard or two apart, as for instance on the southern slope of Church Mountain. The Sewellel is not confined to the mountains, being equally numerous in the lowlands

in favorite localities. It sometimes gets into our gardens and indulges its appetite for cabbage and other favorite vegetables. But on the whole, little complaint is lodged against the mountain beaver.

The BEAVER (*Castor canadensis*) is a born engineer—a Colonel Goethals among quadrupeds. Its distinction rests upon the remarkable inundation projects which it carries out in the construction of very substantial and sometimes extensive dams. Its home is a partly submerged house of sticks, grass, and mud located in the overflow which the dam occasions. It is the largest gnawing animal in North America, and sometimes approaches fifty pounds in weight. The beaver is now rare in the United States, having been largely exterminated by trappers, who in the past have relentlessly pursued it for its fur. A few beaver still exist in the Mount Baker region and there is plenty of evidence that they were formerly more abundant. The beaver, being a nocturnal animal, is seldom seen.

The WHITE-FOOTED MOUSE (*Peromyscus maniculatus oreas*). When we speak of mice, the mind naturally adverts to the domestic pest (*Mus musculus*) that so frequently infests our buildings. But there are many other species of mice, and some of them are quite different from the despised vermin so familiar to us. The white-footed mouse or deer mouse, when you come to know him, is at least an interesting little fellow. The particular sub-species found in the Mount Baker region is recognized by the scientific name above given. It is considerably larger and better looking than the domestic species and has an air of gentility that distinguishes it. The color of its upper parts is chiefly grayish brown; the under half of the body and the very long tail, with the inner surface of the legs and the whole of the feet are clean white. The ears are large. This mouse is a native of our woods and fields. There is seldom a forest cabin that is not liberally populated with them. He is a sociable little fellow and will sometimes join you at the table, scurrying fearlessly about among the dishes, sniffing at the viands and tasting the crumbs, giving you an occasional trustful glance, showing his confidence that you will not molest him. If you would capture him all you need do is invert a cup over him. His friendly activities may seem more objectionable when you come to seek the enjoyment of a night's repose. But you soon learn to disregard and forgive him. A mosquito is a much more dangerous companion. Of course, you have to look to the protection of your "eats," for all mice are enterprising. It must be admitted that no economic value can be claimed for this or any other species of mouse.

The WOOD RAT (*Neotoma cinerea columbiana*). One of the oddest creatures that inhabits this region—odd from a psychological standpoint rather than from a biological one—is the wood rat. It is eight or nine inches in length, with a tail about seven. Its large eyes and

ears, together with a somewhat bushy tail, suggest the squirrel about as much as the rat, and its habits emphasize that impression. Its fur is of a yellowish-gray color above, under parts and feet, whitish. It is exempt from the repulsiveness of the rat, and is fully as interesting as any squirrel. In habits it is nocturnal, and its peculiar activities often hint of clownishness or even spookishness. For, if the tenant of a dwelling or camp near the woods is disturbed at night by unusual noises, which suggest to him that there are dogs frolicking about his attic, or perchance goats doing a two-step upon the roof, and in the morning he finds that his shoes have been filled with teaspoons, his hat with potatoes, and his watch and purse hid in the coffee pot, then he will understand that he has been favored with a visit from the wood rat. Any eve is *Hallow-e'en* with this forest joker. The species is not very common but its visits are long to be remembered.

The PORCUPINE (*Erethizon epizanthus*) is occasionally met with in our forests. It is a climbing animal of the rodent order and subsists on the bark and leaves of trees. It attains a weight of twenty-five or thirty pounds. Its movements are slow. Still it is immune from attacks of other animals, thanks to its armor of sharp and minutely barbed spines.

The PICA (*Ochotona minimus*), or little chief hare, also sometimes called the cony, is an animal that is characteristic of our high mountains. Its home is near the snow line, where it inhabits the rocky slides. It is not a rabbit nor a hare but has a nature much like these rodents. It is scarcely half the size of the common rabbit, being about seven inches long. It is gray-brown in color. The ear is its most striking feature, which instead of being elongated, is round, and about the size of a half-dollar. Its burrow is among the rocks and it seldom strays far from home. Occasionally it gives voice to shrill little cries of warning, the direction of which is hard to determine. The pica gathers quantities of alpine plants, which it piles in a stack to dry for winter use. This little animal lives only in the Boreal life zone, being an inhabitant of northern Siberia and Alaska, and the snow-capped ranges southward.

The VARYING HARE (*Lepus americanus washingtoni*). A region not inhabited by hares or rabbits is certainly a waste. The particular sub-species of the varying hare, or rabbit as it is more commonly called, which inhabits this region, differs from the hare of the East and the northern regions in not assuming a white garb in the winter season. In thus varying from its Eastern prototype rests its only claim to the name, varying hare. The species is fairly common throughout the mountains. The better-known cotton-tail is more numerous in the lowlands.

The MOUNTAIN GOAT (*Oreamnos montanus*) in appearance is the most striking of all our animals. It is a resident of the Boreal life zone only. Like the Eskimo, it loves the neighborhood of the snow and ice, and seldom strays far from it. It is an expert climber, and scales steep crags and icy slopes with a nonchalance that is quite impossible for any other creature found on this continent. The goat is dressed in a dense coat of fine wool, and in addition has an overcoat of long hair, so to speak. Its color appropriately matches the snow. The average male goat is at least three feet in height at the shoulder, has a length of sixty-six inches, and a girth of fifty-one inches. The female is about a fourth smaller. The horns, never quite a foot in length, are black, curving gently backward, and are very sharp. The mountain goat is a rather stupid animal and not difficult to shoot when found. Its flesh is not a choice article of food. The mountain goat inhabits a restricted territory and is difficult for the law to protect from slaughter by poachers. Add to this the inertness of legislators as to any interest in its preservation, and it seems quite evident that at no distant day the mountain goat will be numbered with the extinct races. The most interesting feature of our mountain wild life will then be lost.

The BLACK-TAILED DEER (*Odocoileus columbianus*) is common in certain favorite localities near Mount Baker, but on the whole is none too plentiful. It is somewhat smaller than the white-tailed deer of the East and Central West, and decidedly smaller than the mule deer of the interior mountain region. In color it is somewhat darker than either of the others mentioned. This darker coloration is not confined to the deer, but is shared by many other mammals and birds of our heavily forested Northwest. Of all the large game animals of North America, the most valuable is the deer. The buffalo was quickly exterminated by the white man, but the deer is not so easy. His senses are keen, his foot is fleet and he knows his bloodthirsty enemy. It requires the assistance of the hound to entirely eliminate him. States that have succeeded in preserving the deer, are finding it an asset of great value.

The ELK (*Cervus canadensis*). Whether the elk hereafter is entitled to be listed as inhabiting the Mount Baker region is quite doubtful. It is certain, however, that in the past it was no stranger in these parts. Horns of the elk are still found occasionally even in the lowlands of Whatcom County. In past years the writer has seen tracks on the snow fields hereabouts that could be ascribed to no other authorship than that of the elk. Observers of unquestionable trustworthiness, in recent years, have reported seeing elk on the east slopes of Mount Baker.

PLACES WORTH VISITING IN THE MOUNT BAKER DISTRICT

SKAGIT RIVER CANYON



HOSE who view the broad Skagit River near its entrance to Puget Sound where it is crossed by the Coast line railroads, are not apt to think that farther upstream, almost due west from Mount Baker, this great river surges through a rock cleft so narrow that a man with his arms outstretched can almost span the entire distance. The river at this point is literally turned on edge, its greatest dimension changing from width to depth.

High above the entrance to this narrow Canyon of the Skagit, its floor more than 150 feet from the water, a suspension bridge some 100 feet long has been built. Its supporting cables are attached to anchor bolts bedded in solid rock and although the bridge is amply strong, it sways and quivers in a truly alarming manner before the strong winds which often sweep down the canyon.

Within the past year this canyon has been penetrated at low water. For upwards of an eighth of a mile its walls rise perpendicularly overhead, at times leaning toward each other as if attempting to shut out the daylight. Soundings taken show the depth to be seventy feet.



CANYON OF THE SKAGIT

"For upwards of an eighth of a mile its walls rise perpendicularly overhead, at times leaning towards each other as if attempting to shut out the daylight." High above the canyon a suspension bridge has been built. The timbers show in the upper left corner.

In addition to the main river channel, great clefts in the vertical strata shoot off at varying angles. The water backs into these dark caverns, which for the most part are closed at the top. In one of them, a tree is lodged at an elevation of fifty feet above the water at its lowest stage, indicating the great fluctuations in the flow of the river.—ROBERT L. CAMPBELL.

BAKER HOT SPRINGS

Ten miles southeast of Mount Baker, secluded under a dense forest of amabilis fir and hemlock, and surrounded by fallen trees covered with moss, emerged a rivulet of steaming hot water. Beside it for some distance separated by a miniature divide, flowed a surface stream of crystal cold water, until the two mingled to form a part of the headwaters of Morovitz Creek, a tributary of Swift Creek just above its entry into Baker Lake. This was the situation in 1914, when Victor Galbraith while examining the ground in a proposed sale of shinglebolts, observed a white mineral deposit on the moist rocks. Investigation revealed what is now known as the Baker Hot Spring, located in section 19, township 38 north, range 8 east.

Preliminary tests showed the predominant element to be sulphur and the temperature of the water to be 110° F., which has been somewhat increased by development. At first a pool about six feet across was hollowed in the surrounding gravel formation, but last season, under the direction of Forest Ranger G. C. Burch, a twelve-foot square excavation was made and cased all around with split cedar. From the bottom of the pool within, which is about two feet in depth, rises a continuous stream of bubbles ejected by the fires of Mount Baker, now long concealed beneath an impenetrable mantle of snow.

A bath house has been built where any who pass that way may indulge the native luxury appertaining to Carlsbad.—ROBERT L. CAMPBELL.

THE TWIN SISTERS

The Mount Baker region abounds in magnificent and varied vistas. It would be difficult to select a view as the most wonderful. Scale to the top of the mountain itself, climb one of the succession of adjoining foot-hill ridges such as Skyline, or go far afield to Twin Lakes—wherever you are, north, south, east, or west, within this area, you will find each outlook claims its distinctive charm and challenge.

The Sister Range is across the Middle Fork and opposite what is usually termed the southern slope of Mount Baker. Eleven peaks have been counted. The two western of these are the highest and have been named the Twin Sisters. The High Peak, as I shall designate it, is the eastern of the Twins, rising according to the latest map of the Forestry Service to 6,850 feet but traditionally supposed to bear the mystic altitude of 7,777.

Terrific chasms and cleavages compel attention in this section. Mountains are sliced away for precipices and watersheds. It is inspiring while ascending Mount Baker in the early morning to have the sun appear over the eastern shoulder of the mountain, and shoot its level rays upon the jagged, rocky tops of the Sister Range, flooding them in a rich, mellow light, until gradually stronger beams kindle these serrated peaks aglow and ultimately penetrate the caverns of darkness beneath them, to rescue shapes out of the void. This experience especially attracted my attention to the Sister Range and led to a better acquaintance with it.

In company with Forest Ranger Carl E. Bell and Photographer J. W. Sandison I made a trip to the Twin Sisters several years ago. We returned enthusiastic. A somewhat detailed account of the trip was published in the press at the time. The panorama is beyond description, with Mount Baker its center. You look directly up the Deming Glacier from the snout, to the dome of the mountain. A number of photographs of the scenery taken by Mr. Sandison are before me as I write and no pen could transform them into an adequate word picture to reveal anything like the reality. Prospectors, an occasional hunter, the forest ranger and only comparatively few others have as yet become acquainted first hand with this accessible scenic territory, which guards the entrance from the southwest to Mount Baker and the ranges beyond. Here is the route.

Take an auto stage from Bellingham or otherwise reach Heisler's ranch at the beginning of the Deming trail. A walk of about eight miles will bring you to the Ranger's cabin on the north side of the Middle Fork and just within the forest reserve. Proceed beyond the cabin a short distance until you find a good place to ford the Middle Fork. Upon crossing you are now facing the ridge that leads directly to the High Peak of the Twin Sisters and Sister Range.

This is a wooded ridge without a trail. In general it is in the shape of a triangle and is bounded at the base by the Middle Fork for a distance estimated at two miles, between the junctions of Sister Creek on the north and Green Creek on the south, with the Middle Fork. Sister Creek and Green Creek are the other two sides of the triangle. Their headwaters are practically at the apex of the triangle, rising upon either side of the Hog Back which forms the crest of the ridge up which you are now to travel.

In negotiating this ridge follow the valuable and repeated injunction, "Keep high." You will cover perhaps three miles before emerging into the open at the summit. As the ridge narrows the sides are resolved into precipices. There are pleasant parks, with water, suitable for camping, near the upper part of the ridge. The highest point we called Panoram Knob. Keep to the north of this and soon you will have the Twin Sisters in full view. From a glacier in the



J. W. Sandison, Bellingham

SISTER MOUNTAIN RANGE

The middle ridge is the one upon which the ascent is made from the Middle Fork, at the base. Sister Creek and Green Creek are seen defined at the right and left of the ridge. Panoram Knob is the high point on the ridge just before it descends to form the Hog Back. Of the Twin Sisters the one to the left is the High Peak. Taken from a foot-hill of Mount Baker.

foreground several waterfalls plunge into the canyon of Sister Creek.

A small valley intervenes here between you and the main snow field of the High Peak. The snow field of this valley also feeds Sister Creek. Passing around Panoram Knob on the western side you arrive at the Hog Back and watershed between Sister and Green Creeks. This becomes a great precipice on the southern side and you look down from 1,500 to 2,000 feet at Green Creek below.

We did not think it feasible to reach the snow field of the High Peak from the Hog Back, although it seemed inviting, but descended into the small valley mentioned and climbed up to the snow field. After an easy grade over a mile or so of snow we attained the exposed rocks, piled one upon the other, of the High Peak itself. On the west side of the High Peak the drop approaches the perpendicular.

In some respects the revelation from Panoram Knob is equal to that of the High Peak, with the Sister Range close by, stretching away in one direction, and Mount Baker with the supporting ranges, in the opposite, a marvellous panorama.

Although one might wander about, yet there is little chance of becoming actually lost in taking this trip, defined as it is upon three sides by the Middle Fork, Sister Creek and Green Creek. Again "keep high" upon going down the ridge. Soon you will be back to the Middle Fork at some point on the Deming trail between Sister

Creek and Green Creek, if not at the exact point you started. Keep in mind the precipices on either side of the ridge, particularly as you begin the descent.

If you wish the advice of Mr. Bell, Mr. Sandison, and myself in regard to taking this trip to Panoram Knob and the High Peak of the Twin Sisters, we advise all who have caught the spirit of the mountains—and we advise collectively and individually—"Go." To those who have not caught the spirit of the mountains we also say—"Go." May you all have dry weather and a clear sky.—FRED ALBAN WEIL.

AN UNKNOWN VALLEY

In 1915, while camped on the upper Baker River, midway between Baker Lake and Sulphide Creek, I took occasion to follow to its source a stream entering from the southeast through a high gap in the range south of Baldy. Ascending from the river, the mountainside is abrupt, and faced with precipices. The stream drops in a series of cascades, enclosed in a box canyon. The climb to the gap was difficult. Above the gap the stream flows through a chain of sloping valleys, separated by transverse ridges. The thicket in the lower valley was all but impenetrable, and I took to the stream. Crossing the upper barrier, I worked into the second valley, over and between great cubes of rock. The cubes, often from ten to twenty feet across, also appear upon the surface of the lower part of the second valley, having fallen from the perpendicular mountain wall which forms its southern boundary. In places the arrangement suggests the squares of a city, with streets and alleys through which the traveller must pass. The stream flows beneath the surface. The middle portion of the second valley contains a grove of large lowland conifers, with the usual carpeting of moss, all of which seemed strangely out of place. Here I spent the first night. Continuing at daybreak, I passed to the third valley, and about three hours later emerged from the timber into the fourth valley, which extends to the divide. At the upper or eastern end, the fourth valley is split by a butte, the northerly branch opening by way of a low pass into the valley of the upper Bacon Creek, which valley can be seen from this point extending for some miles north and back of Baldy. That valley is without timber and contains broad grass stretches. At the south of the butte three snow peaks appear above the green ridge of the divide. The view from the ridge is magnificent. Between the ridge and the peaks lies a deep gorge, with sides almost perpendicular. At a distance to the right the ridge closes around the gorge and joins with the higher mass lying back of the peaks. To the left—northeast—the gorge opens and discharges into the Bacon Creek Valley, but high above it. The mountain sides are stained with yellows and browns. Glaciers rest between the peaks, their streams dropping into a lake in the gorge. The tints of the lake

I dare not attempt to name. Facing about, Shuksan is discovered in a new form, with the glacier basin of the Sulphide as the central point. To the right is Ruth Mountain, and to the left Baker.

Leaving the divide at noon, I met with a series of unusual experiences, and reached camp on the third day out.

Later, at Baker Lake I was told that the upper valley was discovered, accidentally, in 1914, and that it could be reached only from a point back of the fish hatchery, through a four-foot pass in the rocks. Apparently my route has been overlooked; and I doubt that the valley of the grove under the cliff is yet known.—ANTHONY ARNTSON.

FISH FOR THE FUTURE

ROBERT L. CAMPBELL



NOT all the streams in the vicinity of Mount Baker reward the efforts of the patient angler. In many instances high falls have prevented the trout from inhabiting the up stream waters. This is notably true of the North Fork of the Nooksack, and Wells and Swamp creeks, two of its tributaries, as well as Big Beaver, Thunder, and Ruby creeks, which flow into the Skagit River.



TRANSPORTING FISH TO STOCK MOUNTAIN STREAMS

"Fish were packed in milk cans on mule back in some cases a distance of thirty-eight miles."

In order to change this unsatisfactory condition, more than 40,000 fish were planted in these streams during the past season. Fish were packed in milk cans on mule back in some cases a distance of thirty-eight miles. At every spring and stream crossing fresh water was added, with the result that scarcely a minnow was lost on the journey.

Many, however, may eventually become tender prey to the cannibalistic propensities of the Dolly Varden trout. Of the four species which inhabit the mountain streams which rise in the neighborhood of Mount Baker, the Dolly Varden is the outlaw fish. During the past season, one of the marauders, weighing six pounds and twenty-five inches long was captured, and upon examination found to have inside a rainbow trout eight and one-half inches long.

The rainbow is in reality a land-locked salmon of the steelhead variety, and is found in the larger streams which enter directly into Puget Sound. The black spotted trout frequents the smaller streams, along with the cutthroat, which is distinguished by a red slash on each side of his throat.

PREPARATIONS FOR TWO OR THREE-DAY OUTINGS

MARY L. HARD



N a one and a half day trip the party usually reaches the camp site in the afternoon, and camp is made near transportation facilities. The climb or walk for the next day should be so arranged that no packing is necessary. On two or three day trips, the first day is spent in reaching the base camp, the second day in climbing or hiking and the return to town, or if three days are available, the return to town is on the third day. The three day outing makes it possible to take a long trip on the second day and get farther away from civilization.

The same rule holds good in preparing for special outings as for local walks: a thorough scouting trip must be made over the prospective route. The leader's responsibility when a party is entrusted to his care can not be too strongly emphasized; it is absolutely necessary that he should know every step of the trip. He should take into consideration the strength and ability of the party, judged according to the weakest, not the strongest member, and make the pace and work such as to enable him to get his party back in the best condition. This can only be accomplished when the route of the outing has been well scouted. The leader is not only responsible for the safe return of the party, but also for the condition of its members, and an outing from which the party returns worn out by excessive hurrying on the last mile or through having to retrace the route, or on which half the party has been lost, may end well but it can not be considered a success.



1.



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THE MONTE CRISTO DISTRICT AS SEEN ON EVERETT OUTINGS

- | | |
|--|---------------------|
| 1. Headlee Pass on Sunrise Trail between Head of Sultan and South Fork of the Stillaguamish. | <i>H. B. Hinman</i> |
| 2. Glacier Basin and Columbia Peak. | <i>H. B. Hinman</i> |
| 3. Wilman's Peak from Divide above Glacier Basin. | <i>C. M. Blady</i> |
| 4. Lake Kelcema and Long Mountain. Head of Deer Creek. | <i>W. Ericksen</i> |
| 5. Looking Out of a Snow Cave in Glacier Basin. | <i>H. B. Hinman</i> |
| 6. Fog Above Silver Lake. | <i>C. M. Blady</i> |

The first consideration is the selection of a camp site. If it is to be a back-packing trip on which the members carry their own beds and commissary, it is advisable to have the camp site as near the point of embarkation as is compatible with the length of the next day's trip. A long back-pack at the end of a climb should be avoided if possible, especially if the end is uphill. It is better to walk an extra few miles in the morning than to shoulder packs for a long pull at the end of a strenuous climb. The camp site should have a good water supply and should be where plenty of wood may be easily obtained. A good rule is to establish commissary at the best place near the stream, with men's and women's quarters on either side. It is very desirable to have several streams, so that there may be one in the women's quarters and one in the men's. It is particularly important to have a sufficient quantity of dry wood to save the cook any extra burden on this account and not to overtax the time of the wood gatherers.

The commissary should be very carefully planned with regard to weight and nourishment. This is especially true if the trip is back-packing. The foods yielding the greatest amount of nourishment per pound, and yet giving a variety, should be selected. The use of dried milk, egg powder, and evaporated vegetables helps very much in cutting down weight. In planning the commissary the number of cooking utensils that will be required should be taken into account and also the time required for cooking. Cooking utensils are always hard to pack and it is well to plan to have as many uses as possible for each utensil. If each member of the party carries his own knife, fork, plate, and spoon the problem of dishes is solved, except those needed for serving; and a really, truly mountaineer needs only one large spoon, a plate, and a cup to answer for a three-course dinner. The amount of food per person, per meal, should be carefully estimated; there should always be enough, but it is very unnecessary to carry more food than will be required. The increase in working appetites should be allowed for above ordinary amounts, and also the increase in the amount of sugar which will be consumed while doing strenuous work.

The same rules hold good for the one day hike, or climb. Get an early start, do your heaviest work, and if necessary the most forcing, in the forenoon; serve lunch early, or, better still have two light lunches, one in the mid-forenoon and one in the early afternoon. Do not have heavy, soggy foods for lunch; nuts, raisins, loaf sugar, hard-tack, zweiback, and chocolate make the best lunches. On a long, tedious climb frequent very short rests are better than a few long ones; in any case do not make the halts very long, as muscles become stiffened and the impetus of mechanical action is lost.

The necessary work on an outing should be borne by all the members of the party, and the only way to accomplish this and arrange the work so that no one is overburdened, is to divide the party into committees and assign to each its special tasks.

THE KITSAP RHODODENDRON PRESERVE

MARY R. PASCHALL



NEW departure of the Mountaineers during the present year was the purchase of seventy-four acres of upland in Kitsap County for a rhododendron preserve. It has since been surveyed by Mr. R. H. McKee, assisted by several club members who volunteered their services for the long and arduous task. Their measurements show it to be a rectangular tract, approximately one-half mile from east to west by one-fourth mile from north to south. It includes several acres of cleared land besides a large forested area and embraces a portion of Wildcat Valley with about one hundred twenty-five feet of the running stream. The contour is rugged and full of surprises, especially in the ravines, while a series of parklike enclosures on the bench land on the southwest, offer ideal locations for evening campfires.

The farm buildings found on the property are constructed of fir logs, are well roofed and are at present adequate to shelter week-end campers. The main house has been equipped with a good range and cooking utensils while members have contributed many additional household articles, including hand-made benches and chairs. The upper story is assigned for the use of the women, while the barn, with an airy haymow and lean-to, has been set apart for the men. The subject of family cabins, for use when several parties register at the same time, is of especial interest to the married members. It has been suggested that one-room buildings with facilities for making a fire might secure for them the necessary comfort and privacy. Three such are ready for slight remodeling. A satisfactory water supply has thus far proved most puzzling, as the present well is adequate for drinking purposes for only half the year and quite dry during September. There is, however, abundant flow of water in Wildcat Creek, and the springs near the southeast corner seem to be constant.

Next to water supply the matter of trails is of vital importance. A clean-cut boundary would serve not only to define the limits of the property but also to check fire which is a constant menace. The rhododendrons do not recover for many years after burning and the timber is irreparably damaged. When the fire trail is completed several others of peculiar beauty will no doubt be opened. The Bennett-Curtis trail, which is the first new one, drops quietly down into the

hundred-foot ravine in front of the house and terminates near the northeast corner stake. It might be continued down the full length of the valley, and connect eventually with the logging road for Kitsap Lake. The trail along the north line, westward to the corner, should eventually join a water-grade trail to Wildcat Lake, and there should be a direct route to Baldy by way of Lost Creek. The present short cut to Seabeck, across Big Beef Valley, is already used by guests from Kitsap Lodge, who are enthusiastic over its varied windings through forest and field.

Yet strong as is the lure of the outgoing trails, there is nothing of greater interest to lovers of the open than the forest gardens of rhododendron which rival in gorgeous display the irised fields of the mountain meadows of the high Cascades. The largest of these has almost a level floor. On one hand rise the tall spars of fir trees, on the other a valley drops sheer a hundred and fifty feet into deep green meadows, where two little rivers join hands and run to the sea. When late spring fills the valley with clover blooms the hill gardens are flushed with masses of pink, as though a sunrise had suddenly become tangible. Each bush is painted a different shade, each flower cluster holds a sphere of separate flowers as translucent as soap bubbles, each tiniest floweret is crumpled on its margin like a seashell and mottled in the throat as perfectly as a lily. To look upon it even once in the hush of early morning, when the world is fresh with dew and the thrushes are repeating their matin song, is to have lived deeper. There is in this garlanded amphitheatre unique opportunity for welcoming May as it has not been welcomed since the hawthorne graced the hedgerows of old England in the time of Good Queen Bess.

It is difficult to speak of the park and overlook the wild tenants whose title is so much older than ours. The smaller animals include the Douglas squirrel, the variable hare, the mountain beaver, the muskrat, the raccoon, the mink, the weasel and the otter, with an occasional coyote, a wildcat, or a shy black bear. None, however, have frequented it more or marked out so perfect a network of trails for our laggard feet to follow as the timorous deer that haunts the wild places of the park as a last safe feeding ground. No bit of wild life, though, will be so likely to arrest the attention of the casual wanderer as the sprightly water ouzel when he sings in the November rain beside the stream where the great salmon make their submarine demonstrations. He sings whenever he is lucky enough to find a salmon egg, sings in the hope of another, sings because of the down-pour, and sings because he simply must sing in a world so full of motion and music and light.

The query as to the future purpose of the Kitsap property is perhaps partially answered by the use which has been made of it since



SCENES IN THE VICINITY OF KITSAP LODGE

**The Brothers in the Olympic Range
Overlooking Hidden Ranch
Where Rhododendrons Thrive
Party at Kitsap Lodge
Going for Rhododendrons**

*A. H. Denman
A. H. Denman
Chas. Albertson
P. M. McGregor
Chas. Albertson*

May 6th when it was first opened. Of the four hundred nine members and guests who registered in the six months, two hundred twenty-three are included in the annual rhododendron walk. The remainder came in small parties. The Kitsap preserve is a park in the larger sense, and as such will have more significance as time passes. It may well be styled the kindergarten of the club as the beautiful Snoqualmie Lodge in its mountain environs, is the finishing school.

In these lower playgrounds lies everybody's chance to become a pioneer in woodcraft, to learn to make a fire in the rainstorm, to follow the unmapped forest with only his compass, to read the writing on the trail. When he knows his forest as the seaman knows his sea he is prepared in a peculiar sense to go forth alone and unafraid in answer to the trumpets of the winds that are ever calling man up into the high mountains.

THE LODGE COUNTRY

C. G. MORRISON



O most of us the Lodge is our intimate and affectionate term for the more pretentious title, Snoqualmie Lodge, that has been officially decreed for our mountain home to differentiate it from our Kitsap Lodge. No doubt we should show a scrupulous impartiality by using these titles, but I cannot bring myself to such formality. With me, therefore, it still remains the Lodge, a real friend that has lured me on many happy excursions into this section of the Cascades.

Here is a fitting rendezvous for all lovers of nature and for those who seek the out-of-door life for the mere physical exhilaration. In this clubhouse the activities of the Club could well center, for here, away from the humdrum of city life, there exists a comradeship around the great fireplace, and past experiences are retold and plans for the future laid under the spell of the surroundings. Our interest in the mountains is whetted to the point of action as we discuss our own exploits and hear of those done by others.

And how few of us really know the Lodge country intimately! And how different its aspect as the seasons change! None of us can say that we know any portion of this region until we have seen this valley or that mountain, or yonder lake in its varying garments of spring, summer, autumn, or winter.

First of all then is the immediate vicinity of the Lodge. Near at hand Lodge Lake affords a pleasant interest for an hour's rest in the summer time while one contemplates the tree-covered slopes

of Denny Mountain rising above the trees on the opposite shore, and listens to the music of the tumbling, rushing water in Mountaineer Creek near by. In contrast to this peaceful scene is such an one as is depicted on the Club's Washington's Birthday outing. Snow conditions usually are ideal for snowshoeing on the lake and all kinds of races are enjoyed by participants and onlookers alike. Here the novice has an opportunity to crown himself (or herself) with glory or go down to ignoble defeat, usually in a heap, to the edification of the assembled multitude. Then there are long tramps through the white fairyland without the need of trails to places that are difficult of access at any other time of year. Those who have not shared in one of these gay carnivals should hasten to make up for lost time for they promise to become continually more popular. Winter sports deserve more attention by Club members.



LODGE LAKE

H. V. Abel
A quiet retreat a few hundred yards from the lodge.

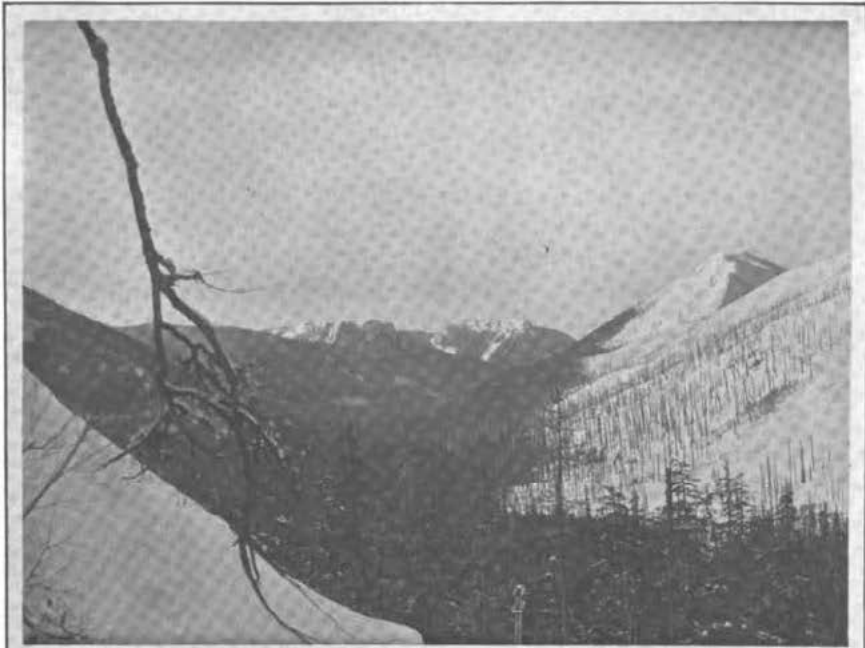
One of the trips that can best be negotiated over the snow is up the Donny Creek Valley, directly opposite the Lodge. In company with Mr. George E. Wright, the writer spent a most delightful four days on a pilgrimage to Kaleetan Peak (formerly called the Matterhorn) last May. The weather was wonderfully clear with just enough tingle in the early morning air to send the blood coursing through the veins. There was no need for a marked trail as it was simply a question of following as close to the stream as possible. We found a good log crossing over the South Fork of the Snoqualmie a little below the mouth of Denny Creek. About half a mile above its mouth there is a picturesque little canyon in Denny Creek with a dainty ribbon-like waterfall which has been named Keekwulee (Chinook, meaning to fall deep down) and not far above this is a miner's cabin which at that

time (May) was completely buried in snow. From here up the valley narrows so that Denny Creek was hidden under many feet of snow, in some places by as much as sixty to seventy-five feet. In fact we passed over the next falls without being aware of their existence. Not far beyond this are Snowshoe Falls from the crest of which we had a splendid view back down the valley and could see the Lodge roof glistening in the sunshine.

Continuing up the valley we soon had a close view of the Tooth rising several hundred feet above the ridge on our right. This jagged spike of rock looked as though its ascent up the south face would afford a bit of real rock work to some ambitious souls. It still remains unconquered. A mile or so above Snowshoe Falls we reached Hemlock Pass and looked down upon the two Melakwa Lakes with Chair Peak rising abruptly 2,000 feet on one side and Kaleetan Peak on the other. Here we established our camp on ten or twelve feet of snow and enjoyed two nights of solid comfort. In climbing Kaleetan Peak (6,200 feet) we dropped down to the two little lakes and then up on the south peak (5,640 feet) in order to avoid avalanches which we saw dislodged from the east face of the mountain by the heat of the morning sun. The soft condition of the snow made snowshoes essential when it was not too steep to use them. It was hard going but the view from the summit was worth all the exertion it took to get there. Everything was under a heavy mantle of snow, the valleys, mountain sides, ridges and peaks, except those sharp pinnacles that gave no surface for the snow to adhere to, and they stood out in sharp contrast to the glistening landscape. The absolute stillness of nature made one realize the stupendousness of it all and how puny were two mere mortals in the midst of it. Under fairly good snow conditions the climb of Kaleetan ought to require about twelve hours for the round trip from the Lodge, although with very soft and wet snow, as we experienced, seventeen hours was necessary.

Granite Mountain (5,820 feet) is so near at hand and so accessible that every club member should make the climb. There is a good trail to the summit where the Forest Service maintains a lookout station during the summer. It is a 4,000-foot climb from the foot of the trail below Rockdale and will take about five hours to the top from the Lodge. To the west of Granite Mountain are two smaller peaks surrounded by lakes, that are easy to reach from the Pratt River trail.

The most popular trip and the one that nearly all visitors to the Lodge have taken is to Snow Lake. The trail is well traveled and three hours is ample time to allow to make the seven miles to the lake. Many hours may be enjoyed rambling around the lake and over the surrounding ridges. The testimony of many ardent lovers of this little lake, that it is without a peer among all the mountain lakes of Washington, will be enough to entice others to make its acquaintance.



T. C. Smith

**WINTER SCENES FROM
THE TRAIL NEAR
SNOQUALMIE LODGE**

Looking down the South Fork of the Snoqualmie, McClellan's Butte cutting the skyline with its pinnacle attracts the eye like a magnet.

Looking across the South Fork of the Snoqualmie and up Denny Creek, Denny Mountain on the right, the Tooth next, Chair Peak peering over the next ridge, Kaleetan Peak in the far distance reminds one of the Matterhorn.

Dominating the whole upper valley of the South Fork, Chair Peak's scarred and serrated mass uplifts itself against the skyline and fascinates one. It is a mountain with a personality and the reason for its appeal is as difficult to explain as it is to define exactly the personality of some persons. Those of us who know it do not attempt to analyze the reason why, but are satisfied to make frequent pilgrimages just to feast our eyes upon it. Furthermore, it is undoubtedly the most difficult and interesting climb of any that can be made from the Lodge in a single day. The ascent is made from the Snow Lake trail up the east face. The summit cannot be seen from the South Fork Valley as it is hidden behind one of the other peaks. Leading to the summit can be seen three rock chimneys and it is up these that the ascent is made. The best time of year is late summer when the rocks are thoroughly dry. It is an ideal climb for a small party under competent leadership. The time from the Lodge is about six hours up and four to return. The distance is approximately eight miles. On a clear day in late summer the immediate surroundings are of particular interest from the summit (6,300 feet). Snow Lake lies 2,300 feet directly below but it seems no farther than a stone's throw into the dark placid waters. About 1,000 feet above, and north of it, lies a sparkling gem of water that empties into Snow Lake through a small cascading stream. And far below and nearly a mile southward are the two Melakwa Lakes shimmering like burnished steel in the sunlight. Farther away ridge after ridge mingled with peaks of all shapes greet the eyes, but most fascinating of all is the view up the valley of Burnt Boot Creek to a rugged pile of mountains over 7,500 feet high, the chief of which is Chimney Rock (7,727 feet). This is virgin territory to the Mountaineers and has a strong appeal for all who have seen it from nearby summits.

Three other climbs are accessible from the Snow Lake trail, none of which offer any difficulties. Denny Mountain (5,600 feet) from this side is climbed up the northeast slope from a point on the Snow Lake trail about a mile and a half from the Sunset Highway. The way leads straight up the mountainside which is covered with brush and therefore can best be made when there is snow. There is no rock work. A little park just south of the summit peak offers a quiet resting place. An allowance of about seven hours for the round trip should be made.

Guye Peak (5,100 feet) and Snoqualmie Mountain (6,270 feet) are approached from the same direction. About a mile up the Snow Lake trail an old trail branches off to the right, crosses the stream and runs for a short distance and then disappears. From here the climbing becomes quite steep and rocky. After an almost perpendicular climb of 1,600 feet a little park is reached at 4,600 feet elevation. A small lake makes it a welcome lunching place on a hot day after the

exertions made to reach it. From this point, which will require about three hours and a half from the Lodge, Guye Peak rises 500 feet almost a mile to the south. There is an interesting bit of rock work near the summit and the reward is a commanding view down the South Fork Valley on one side and down the Yakima River on the other, with Lake Keechelus in the foreground. If a higher elevation is desired it may be had after a 1,700-foot grind over broken granite boulders to the top of Snoqualmie Mountain. The time from the little park is about an hour and a half, while Guye Peak requires less than an hour. Those who prefer a more strenuous climb, with glacier and rock work combined, are recommended to try the north side of Snoqualmie Mountain, via Snow Lake. It can be made by good climbers in about eleven hours.

The Commonwealth Creek trail is one that should be more frequently used by Mountaineers. It leads through a well timbered valley, then up on the shoulder of Red Mountain (5,800 feet) and down into the valley of the Middle Fork of the Snoqualmie. Long will I remember the riot of autumn coloring that flamed up the sides of Red Mountain on one bright October day. The mountain truly depicted its name, for its own reddish rock formation was set off with the scarlet of the sumac and vine maple and it was a solid mass of all shades of red. The quadrangle does not show the new trail which follows up a ridge along the middle fork of the creek, passing a little lake just below the saddle. In climbing Red Mountain the trail is left at this point and the ascent made up the south ridge. It is a simple matter of making 2,000 feet from the valley. More interesting to me was a scramble up the old trail shown on the quadrangle to the ridge connecting Red Mountain with Kendall Peak and then continuing along it for a mile or so to a peak from which we could look down upon Lake Keechelus and up the whole Gold Creek basin, with Mount Thompson's rugged mass standing alone in defiance of both nature and man. Off to the west through the gap between Snoqualmie Mountain and Guye Peak the graceful form of Chair Peak seemed far away, while Red Mountain loomed up in brilliant color apparently only a few minutes walk from where we stood. One of the fascinations of mountain scenery is this deception that Mother Nature plays upon us. From this climax we slipped down into the valley and back to the Lodge, having been gone eight and a half hours. Red Mountain can be done in about seven hours.

Gold Creek Valley while not accessible for one day trips from the Lodge should be classified as in the Lodge country. It is best reached from Hyak at the east portal of the Milwaukee tunnel. The valley is about nine miles long and has a good trail its entire length. Kendall Peak, Alta Mountain, Alaska Mountain, Huckleberry Mountain are

all easily accessible. Mount Thompson can probably best be approached from this direction. From the saddle in the ridge on the northwest side of the basin and from Chikamin Peak just north of it, there is a fine view of the country to the east toward the Clealum River. Spectacle Lake is set in a beautiful park 2,000 feet below, and the rugged Chimney Rock mass with the eastern glaciers is close at hand. Two days are required to make this trip as is the case for almost any climb in this valley.

One of the least explored sections near the Lodge is that lying to the south along the Cascade divide. Under present conditions it is about an eleven-hour jaunt to Silver Peak (5,600 feet) and return, five miles distant. When the trail that has been blazed in this direction to Silver Peak has been opened up, this will prove to be a popular hike adding still another attraction to the many that should make Snoqualmie Lodge a center of mountaineering activity for years to come.

*H. W. Playter**T. O. Smith*

WINTER SPORTS NEAR SNOQUALMIE LODGE



**THE LODGE COUNTRY FROM
THE SUMMIT OF SILVER PEAK**

**NORTH FROM THE SUMMIT
OF GRANITE MOUNTAIN**

**Kaleetan and Chair Peaks and a
corner of an intervening lake.**



**SOUTH FROM THE SUMMIT
OF KALEETAN PEAK**

**Granite Mountain crowned with a
snow cornice and Mount Rainier
high up among the clouds.**

This panorama gives a comprehensive view of the immediate vicinity of Snoqualmie Lodge with all the familiar peaks outlined against the sky.

H. V. Abel

C. G. Morrison

A LOCAL WALK

MARGARET D. HARGRAVE



F the Puget Sound country had been designed exclusively for the purposes and pursuits of the mountaineer and lover of the out-of-doors, it could hardly have suited more precisely. Having given the sea and the mountains, fields and deep forests, Nature has added here the final blessing of a kindly climate. She has made herself irresistible, yet generously approachable. Elsewhere storms may roar and the most devoted nature lover is glad to huddle beside his steam radiator; or, in the dog-days, welcome the poor breezes from an electric fan. His nature-loving impulses must be ruled and governed to fit the seasons, his excursions premeditated and scarcely undertaken at all without considerable impedimenta. Compare with him the Puget Sound Mountaineer; the wild places are at our very doors, we need but a sandwich and carfare and any day may be spent in lonely woods or among rugged foothills. In every direction are trails to tempt the city-dweller from the pavements, hills that quicken our pulses, salty beaches for our invigoration.

Under these conditions it is small wonder that the local walks of the Mountaineers are so popular. Fortnightly or oftener, from September until June, when vacations begin to thin our ranks, we may have our choice of hikes and trips; short walks for Saturday afternoons, all-day walks for Sundays, beach suppers and moonlight saunters, and frequently a special outing when we may spend a night or two in the open, housed by the trees and roofed by the stars.

With the majority, the Sunday walk is most popular; and for the majority the pleasure of the day is increased by a lack of all material responsibility. Some one else has scouted the trip and planned its details, some one else carries the commissary supplies, others start the fires and set the pots a-boiling. Some willing helpers appear, of course, and yet it is perhaps convenient that we do not all crowd to these fields of service. We appreciate the labors of the Committee and the leader whose shining badge we follow, but outside of these more advertised endeavors, other opportunities remain. For it takes more than scenery and lunch to carry through a successful walk. The scenery and lunch may come first—or perhaps it is the lunch and then the scenery—but anyway it is the fun you have, the laughter, the friendly words to strangers, the courteous hand over rough places, and above all, the spreading sense of unity, that crowns or mars the day. And none of these things can be furnished by a committee.

Whether your choice has been for an easy walk or one labeled

“for good hikers only”, the real benefits are the same. At the start there have been gay greetings, hand-claps, introductions; but hurriedly, for you are chiefly concerned with getting aboard on time and finding a seat. Then of course the Sunday paper must be pawed



SUMMER AND WINTER WITH THE TACOMA MOUNTAINEERS

J. H. Weyer

ANNUAL BIRD WALK

The prairies near Tacoma, with their lakes and trees, and open spaces afford many a nesting place for our feathered friends. On this walk forty-three different species were seen.

H. J. Whitacre

NEW YEAR'S OUTING
IN RAINIER
NATIONAL PARK

Here for five days each year the Tacoma members hold high carnival in King Winter's domain, the days spent in taking snowshoe trips, the evenings filled with fun and frolic around the huge fireplace at the Inn.

through, half-heartedly, though, with one eye to the weather and the other on the lookout for friends, and the more interruptions the better. By the time the boat is well out the mountaineer half of your mind is uppermost and the day really begins. Sitting still is proverbially hard work, so, on disembarking you are glad to limber up and the leader's whistle is a signal for a general sprint toward the head of the line. However, a little hill will speedily check our haste, coats are peeled and the crowd is soon converted into a procession, irregular, shifting, and bright with the hues of many sweaters, except at the tail end where the smokers travel, obscured in a fragrant dusk of their own manufacture. Our city-cramped muscles rejoice in a longer stride, our rested eyes perceive anew the beauties of the grey-green woods, our minds shed their little cramping cares and our spirits warm with the sense of comradeship.

There is a mile, perhaps, of dusty road, where we pass a few gateways adorned with staring urchins and guarded by faithful old Tige or Rover—or both; poor silly beasts who invariably excite themselves to frenzy on our appearance and subside to calmness only when the last straggler has been routed. Suddenly a stick laid across the road brings you up short and you turn aside to follow some old skid-road—just what you have been wanting. Where are there woods more wonderful than ours, so dark and mysterious? The lofty firs are high-minded and unsympathetic, the cedars, more gracious, stretch their caressing arms down to us, but the hemlocks come closest to our hearts, suggesting many a springy couch we have had at their expense. Sunlit patches of giant fern and devil's club alternate with gloomy tangles, barricaded by the fallen monarchs. Side trails entreat you, huckleberry and salal beckon, rhododendrons flaunt themselves, but you cannot linger. You know that a select few have gone on ahead to to start the coffee and erbswurst—or rather, since these are war days, the coffee and tea. As we gather round the camp-fire and produce our tin cups, oranges and edibles, it is amazing to note the change produced in our contour lines, for the Mountaineer's capacity for food seems to be limited only by the capacity of his pockets. No feast can compare with the lunch eaten out-of-doors; your appetite demolishes any number of sandwiches, and your tin cup seems to hold but a thimbleful.

Some have it that the climax of the whole day comes in that delightful pause occasionally granted just after lunch, when you are free to dawdle about. You puff your pipe, or powder your nose—you play ball or perhaps snooze in the sun and acquire grass-stains on your face. And only when the whistle has sounded the "onward march" do you remember that you really had intended to help wash those coffee cans!

During the afternoon the chances are that you begin to resemble

the country through which you are travelling. You remember how well some greens would look in the big brass jardiniere beside the fireplace and soon you fairly sprout huckleberry, kinnikinnick, or Oregon grape, so that your fellow pedestrians must give you a wide berth. Coming home from Kitsap Lodge, haven't we seen whole Christmas trees walking along on a pair of hob-nailed boots? But even if you have been over-greedy, the woods suffer less than your muscles, which may remind you of your Spenser and his—

“ . . . seats, and sundry flowering bankes,
To sit and rest the walkers' wearie shankies.”

Not always, of course, is the weather propitious for ball games and snoozes. It is Nature's baptism of wintry rain that preserves the peculiar beauties of our country, and the Mountaineer, in his waterproof garments, rather prides himself on enjoying a day of mist. More than mist it may be; yet only once have we heard of any party of Sunday walkers who admitted that they had been actually wet, and then they assured everyone that it was not really due to the rain, but only that they had been out in it so long! But no matter how stormy the day may have been, we are fairly certain of a fine sunset on the way home. The clouds lift, and there is Rainier bathed in a roseate glory, and the sharp and austere outline of the Olympics. In any direction the view repays a chilly vigil on the upper deck. So what if your fingers be a bit numb when you leave the boat; your soul has been thoroughly ventilated and your mind decorated with unpaintable pictures that will not be dimmed for many a day.

The midwinter outings on Rainier or at the Snoqualmie Lodge offer a revelation to those who have known our forests only in their gayer summer attire. Wind and cold weather have built King Winter a dazzling palace, and no one willingly spends indoors a moment of the precious daylight. Every particle of snow sparkles with life, yet there is a silence almost of death, and the forest seems to be holding its breath in awe of its own beauty. Only small creatures, at home forever in the woods, scurry and twitter, unabashed. But as you stand revelling in this newly discovered fairyland, do not forget that you are possibly on equally strange terms with a brand new pair of snowshoes. “Watch your step!” There—never mind, kind friends will pick you up, sort out your feet for you, dig the snow out of your sleeves and head you once more in the proper direction. And when, around the evening fireplace, the really expert snowshoers boast of distances covered and of magnificent panoramas, your own adventures seem not one whit belittled, and there is no envy in your silence.

So, through all seasons, we follow the call of the out-of-doors; and the sum and substance of it all seems to be that the oftener you go on local walks the more you love them, and the oftener you are kept away, the more you love to go!

SUMMARY OF LOCAL WALKS AND SPECIAL OUTINGS

No.	Date 1915-1916	Route	Miles	Leaders	Attendance	Cost
264	Nov. 7	Waterman to Long Lake to Colby.....	10	Mr. and Mrs. Jos. A Peterson.....	151	\$0.50
265	Nov. 14	Cowen Park to Ravenna Park (Public Walk).....	6	L. F. Curtis and G. I. Gavett.....	325	----
266	Nov. 21	Endolyne to South Park.....	10	H. W. Playter.....	81	.10
267	Dec. 5	North Renton to North Renton.....	11	R. Leber and C. Ruddlman.....	47	.30
268	Dec. 12	Redondo to South Park.....	17	Charles Hazlehurst.....	25	.60
269	Dec. 19	Chico to Hidden Ranch to Chico (Christmas Greens Walk).....	8	J. B. Nelson.....	162	.50
270	Jan. 9	Cowen Park to Green Lake.....	9	G. I. Gavett.....	31	----
271	Jan. 16	Sunnyside to Lake Sammamish to Juanita.....	17	Grace E. Howard.....	17	.30
272	Jan. 23	Manitou to Port Madison to Manitou.....	8	Alida J. Bigelow.....	51	.50
273	Jan. 30	Endolyne to Lake Burien (Sunday P. M.).....	6	A. L. Strong.....	48	.10
274	Feb. 20	Tracyton to Silverdale.....	10	Mary L. Hard.....	113	.50
275	Feb. 27	Pleasant Valley to Interbay (Sunday P. M.).....	6	A. L. Strong.....	116	----
276	Mar. 5	Hazelwood to Newport.....	12	M. Ross Downs.....	87	.40
277	Mar. 12	Interbay to Pleasant Valley (Sunday P. M.).....	6	A. L. Strong.....	34	----
278	Mar. 19	Crystal Springs to Manzanita to Port Madison.....	10	Hazel Leslie Royer.....	113	.50
279	Mar. 26	Maple Valley to Renton.....	16	Gertrude Inez Streator.....	25	.95
280	Apr. 2	Riverside to Endolyne (Sunday P. M.).....	6	Sue Kellett.....	35	----
281	Apr. 9	Navy Yard City to Blue Hills to Elwood.....	8	Ruby Entz.....	131	.50
282	Apr. 16	Renton to Maple Valley to Renton.....	11	T. C. Smith.....	59	.40
283	May 7	Woodinville to Crystal Lake to Maltby (Peat Bog)....	8	Geo. B. Rigg.....	10	1.70
284	May 14	Tacoma Prairie (Violet Walk, with Tacoma).....	9	Ida Kratsch.....	151	.90
285	May 28	Chico to Kitsap Lodge to Chico (Rhododendron Walk)	5	Myrtle A. Culmer.....	223	.50
286	June 4	Ravenna to Sand Point to Cowen Park.....	10	L. I. Neikirk.....	57	.10
287	June 18	Meadowdale to Edmonds (Joint with Everett).....	9	W. A. Marzolf and J. A. Varley.....	46	.50
288	July 8	Balley Painsnsula (Campfire, Saturday P. M.).....	---	Local Walks Committee.....	56	.10
289	Sept. 24	McKenna Falls.....	12	Gertrude Inez Streator.....	113	.50
290	Oct. 1	Gilberton to Illahee (Supper Walk).....	9	Inez Wynn.....	98	.50
291	Oct. 13	North End Mercer Island (Campfire, Friday P. M.)....	---	Local Walks Committee.....	30	.25
Special Outings						
25	Feb. 12-13	The Lodge. Snowshoe Climb Rockdale Pk. (4,538 ft.)	---	Local Walks Committee.....	21	3.00
26	Apr. 29-30	Climb of McClellan Butte (5,175 ft.) Bivouac.....	---	Charles Hazlehurst.....	16	3.50
27	May 20-21	Climb of Granite Mountain (5,820 ft.) from Lodge....	---	Local Walks Committee.....	18	3.25
28	May 27-28	Kitsap Lodge. Mount Baldy (1,600 ft.).....	---	H. A. Fuller.....	53	1.25
29	June 24-25	Cedar Falls, Rattlesnake Ridge (3,550 ft.) Bivouac....	---	Local Walks Committee.....	18	2.70
30	July 1- 4	The Lodge. Walks and Climbs.....	---	Local Walks Committee.....	36	4.20
31	Sept. 2- 4	Horsehead Bay. Walks. Bivouac.....	---	Local Walks Committee.....	---	5.00

Total attendance 2597

THE PROPOSED MOUNT BAKER NATIONAL PARK

The Mount Baker National Park idea had its inception in the Mount Baker Club, an organization of nearly 2,000 members, formed for the purpose of exploiting this mountain region as a resort for tourists as well as a playground for the citizens of our own state.

A bill was introduced by Congressman L. H. Hadley in the House and by Senators Jones and Poindexter in the Senate during the last session of Congress. The Mount Baker Club's Historian, Hon. C. F. Easton, was sent to Washington, where he remained for more than two months, assisting Mr. Hadley in every way possible to pave the way for the passage of the bill. Armed with data he had assembled after months of careful preparation, he appeared before the Committees on Public Lands of the House and Senate, with the result that a very favorable impression was made and with a reasonable certainty the bill would be favorably reported by both Committees at the proper time.

Owing to the very weighty and important matters, both foreign and domestic, constantly coming before Congress, it was not deemed advisable by Congressman Hadley to urge action in the Committees. It also seemed desirable first to secure the passage of the Kent National Park Service Bureau bill. This bill was passed during the last days of the Congress and it is expected there will now be no difficulty in securing the passage of the Mount Baker National Park bill early in the session of the next Congress.

WILL D. PRATT,

President, Mount Baker Club.

ACTIVITIES OF OTHER OUTING CLUBS

BUREAU OF ASSOCIATED MOUNTAINEERING CLUBS OF NORTH AMERICA

During the summer of 1915, I visited the mountaineering clubs and geographical societies of the country and suggested the formation of an association for the furtherance of common aims, and for the establishment of headquarters in New York, where mountaineering information might be collected and made available. The plan was outlined as follows:

It was proposed to form an association of clubs and societies, each of which shall co-operate through its secretary and transact its business by correspondence with the general secretary. Each club shall send its printed matter, which will be added to the collection of mountaineering literature established in the New York Public Library. An annual bulletin of information on the membership, officers and activities of the leading organizations shall be issued. The secretary of each club will notify the general secretary of the movements of local members who have interesting slides, and who can address the members of the association at such times as they may be in different parts of the country. One of the most important features of a club's activities is that of its library. Members should be encouraged to read what is being done in the mountaineering world, for education in this direction is as essential to a true appreciation and enjoyment of mountaineering as is the work in the field. Copies of

many of the new books in mountaineering will be sent to each club for review in its annual publication and bulletins, thereby materially assisting in the growth of its library.

It is believed that the existence of this association will have a valuable influence in many directions, and, occupying the field, its activities may expand as experience and occasion make desirable.

Meeting with a favorable response to the above ideas, I sent out a preliminary letter and received unofficial replies in approval of the plan. At the annual meeting of the American Alpine Club, held at the New York Public Library on January 8, 1916, I presented these letters and asked that the councilors of the club be instructed to consider the plan and to send out an official letter to each club inviting it to become a member of the proposed association.

After due consideration, the councilors of the American Alpine Club sent such a letter in March to the leading clubs asking them to join in a Bureau of Associated Mountaineering Clubs of North America. Securing a majority of acceptances, they declared the plan in operation on May 2d, 1916.

The first official act of the bureau was the publication in May of a bulletin containing statistics of the membership, officers, and activities of the leading mountaineering clubs and geographical societies of the Continent. The present membership of the bureau comprises the following organizations. (Some others await the annual meeting of their directors.)

American Alpine Club
 Appalachian Mountain Club
 British Columbia Mountaineering Club
 Colorado Mountain Club
 Geographic Society of Chicago
 Geographical Society of Philadelphia
 Hawaiian Trail and Mountain Club
 Mazamas
 Mountaineers
 Prairie Club
 Sierra Club
 United States National Parks Service.

A valuable reference collection of mountaineering books has been formed by the New York Public Library in the main building at 476 Fifth Avenue, and we have secured the deposit of the library of the American Alpine Club. The combined collection promises to become one of the most important in existence. A collection of photographs and enlargements of mountain scenery in all parts of the world is also being made, and contributions of mounted or unmounted views will be appreciatively received.

LE ROY JEFFERS, General Secretary,
 Librarian American Alpine Club.

AMERICAN ALPINE CLUB With regard to work done in 1916, it is as yet too early for me to have received detailed reports from the different members. I may say, however, that Mr. and Mrs. Albert MacCarthy continued their mountaineering in the Purcell Range in the Toby Creek and Horsethief districts with the Austrian guide, Conrad Kain. Dr. and Mrs. Winthrop E. Stone of Purdue University were members of their party for much of the season. Dr. and Mrs. Stone later visited the Selkirks, climbing Mount Avalanche on one day and making the traverse of Mount Sir Donald by way of the northeastern arête the succeeding day. In September Mr. MacCarthy led an expedition up Bugaboo River in the Purcell Mountains and made the first

ascent of a fine rock peak, known for purposes of identification as "Mount Howser," a very difficult climb of about 11,000 feet. Other peaks were ascended in its vicinity.

In the Northern Rockies in the vicinity of Mount Robson a party consisting of Professor E. W. D. Holway, Howard Palmer, and Dr. Andrew J. Gilmour explored Swift Current River and the very extensive Swift Current Glacier at its head, making the first ascent of Mount Longstaff, 10,500 feet, and a new route up a nameless mountain in the White-Horn Range about 10,600 feet high. Later, Professor Holway and Dr. Gilmour spent a fortnight in the hitherto unvisited Cariboo Mountains west of the Frazer River. They discovered a magnificent tract of country with long glaciers and 11,000-foot peaks.

The weather during the season of 1916 in the Canadian Alps was exceedingly unfavorable, with long periods of rainy days and only a few periods of sunshiny weather. The high mountains all over the Canadian Rockies were loaded with new snow and the comparatively little mountaineering accomplished was performed for the most part on peaks approachable by means of rock ridges.

In the Selkirks a new ascent of Mount Fox, 10,570 feet, was made from Glacier House in one day by way of the Illecillewaet névé and the north arête, by Howard Palmer and Dr. George M. MacKee, an expedition occupying nineteen and one-half hours.

Mr. LeRoy Jeffers, Secretary of the Associated Mountaineering Clubs of North America, made the first ascent of the south peak of Mount Williamson (about 14,000 feet) in the Sierras, passing over the summit of Mount Williamson, 14,405 feet.

HOWARD PALMER, Secretary.

APPALACHIAN MOUNTAIN CLUB At the beginning of the year the club celebrated its fortieth anniversary. At that time there were 1,842 members. An account of this and other similar organizations, "The Mountaineering Clubs of America," will be found in *Appalachia* for 1916. The publishing department has been unusually active. In addition to *Appalachia*, which has appeared annually since the founding of the club, this year has seen the publication of a valuable "Guide to Paths in the White Mountains and Adjacent Regions" (397 pages), a booklet on "Equipment for Mountain Climbing and Camping" (28 pages), and an illustrated monograph on the "Club Huts in the White Mountains" (16 pages).

The out-of-door activities, in addition to the usual Saturday afternoon walks, have included four snow-shoe parties, the Christmas excursion to Manchester, Vermont, among the Green Mountains; a nine days' trip late in January to Wonalancet, N. H., in the southern part of the White Mountains; three days in February at East Jaffrey, with opportunity to climb Mount Monadnock; and the regular snow-shoe outing, participated in by 134 members, from February 19 to 28. The latter was at Randolph, N. H. (1,400 feet above sea level), one of the best climbing centers in the White Mountains, but low temperatures and high winds prevented as much climbing as usual, although small parties reached the summits of Mounts Adams (5,805 feet), Jefferson (5,725 feet), Madison (5,380 feet).

A spring trip to Stowe, Vermont, at the foot of Mount Mansfield, the highest of the Green Mountains, made thirty-two people happy.

The annual Field Meeting, July 1 to 8, was at Moosehead Lake, Maine, which state was also the scene of the August camping trip. This was at the eastern base of Mount Katahdin, the highest mountain in Maine (5,272 feet) and the most interesting mountain in New England.

The Fall Excursion, September 29 to October 7, went to Crawford House, in the White Mountains. The club huts have been open from July 1 to October 1, and three walking trips have made these huts their sole stopping places for the night.

The club camp at Three Mile Island, Lake Winnepesaukee, for the less strenuous members, has been open through July and August as usual.

ALLEN H. BENT.

BRITISH COLUMBIA MOUNTAINEERING CLUB An article contributed to a British Columbia paper by a member of our neighboring club to the north indicates a number of experiences that parallel in an interesting way those of The Mountaineers on the recent outing at Mount Baker. What must have been their equivalent of our trying "skyline trail" seems to have come the first day of the trip. "The first stage of the journey," to quote from the article, "was made by steamer to Squamish, followed by a ride of about twenty miles on the Pacific Great Eastern Railway to Stoney Creek, passing through Cheakamus Canyon on the way. The Cheakamus River was crossed on a cable bridge, and after packs had been adjusted, six hours traveling along a well defined trail brought the party to its destination. The large camp fire, encircled by tents, was very welcome to the late comers. A two-hour tramp over rough and frozen snow had tried the nerves as well as the muscles, and most of the party were not disposed to grumble about the lack of feathers in their beds that night.

"Many points of interest are easily reached from the camp. The Black Tusk, Helmet Peak, Sentinel, Castle Towers, Red Mountain and the Table were ascended at different times, and the circuit of the lake was made on three occasions.

"A point of particular interest was a tufa cone, some 500 feet high, situated in such a position that the Helmet Glacier flows on either side, forming two tongues. There is a small crater at the top, about 60 feet deep, partly filled with ice and water. The cone has been cut into on the southern side by a stream from the glacier, and a good section of its faulted layers of tufa can be seen.

"One of the most notable events during the camp was the first ascent of the Table, a massive pile of lava some three miles north of Mount Garibaldi. Its flat top, as level as the bench lands below, stretches about 400 yards east to west and 150 yards north to south, and is covered with heather and stunted trees. This level surface breaks away in perpendicular walls of rock, varying in height from 300 to 1,000 feet. The rocks were very loose and progress correspondingly slow. It soon became apparent that there was great danger from falling fragments, and it was decided to allow the leader to attempt the climb alone, while the rest of the party sought shelter."

So difficult was the ascent that it seems to have taken him three hours to make 300 feet to the top and return.

About thirty per cent of the membership of the Club is on service with the army.

CANADIAN ALPINE CLUB The 1916 Summer Camp of the Alpine Club of Canada was held in Healy Creek Valley with an auxiliary camp in Simpson Pass. The camp was designated as the Second War Camp and was intended to keep alive the Alpine spirit of the club, that loyal organization having sent ninety members, both men and women, on Imperial Service.

Prospective members of the outing gathered at the Alpine Club House, Banff, Alberta, enjoying to the full its gracious hospitality. Leaving Banff, a nine mile launch trip up the Bow River, followed by a twelve mile tramp through woody trails and later into higher open country, brought one to the Healy Creek Camp, which proved a most comfortable and even luxurious one.

The two Swiss guides took various parties on try-out trips to the adjacent cliffs and hills, the rock affording excellent practice to members unaccustomed to rock work. Mount Monarch was the best mountain accessible from camp and was climbed by three different parties. A party of three men made an expedition to Mount Brett with Sir James Outram. The beautiful park country adjacent to the Simpson Pass Camp was visited many times—Egypt Lake proving of especial interest.

To Mr. A. O. Wheeler, Director, and Mr. S. H. Mitchell, Secretary of the Alpine Club, great credit is due for the admirable management of the camp. The spirit of gracious hospitality was most delightful and much appreciated. When the war is over the Club is planning a great Jubilee Camp at Mount Assiniboine—and may that be soon.

LULIE NETTLETON.

COLORADO MOUNTAIN CLUB The annual camp of The Colorado Mountain Club was held this year from August 7th to 19th in the Wild Basin district at the southeastern edge of the new Rocky Mountain National Park. About seventy-five persons took part in the camp, including guests from nearly all the other mountaineering clubs of America. The party entered camp by the "Switzerland Trail" railroad to Ward and thence by automobile to Copeland Lake. The camp was situated on the trail three or four miles west of Copeland Lake. The district visited consists of a group of glacial gorges, lakes, waterfalls and timbered valleys in an amphitheatre of peaks, including Oglala Peak (13,147 feet), Mount Copeland (13,176 feet), Mount Alice (13,310 feet), Mahana Peak (12,629 feet), Tanima Peak (12,417 feet), Chiefs Head (13,579 feet), Mount Meeker (13,911 feet), and Longs Peak (14,255 feet). This is the third annual camp which has been held by the Club in the region covered by the Rocky Mountain National Park.

Besides the annual camp, a large number of one, two or three day trips were conducted during the year, including the climb of Arapahoe Peak (13,506), Mount Evans (14,260) Grays Peak (14,341), Torreys Peak (14,336) and a number of other less ambitious climbs. The number of visitors seeking recreation in Colorado this year surpassed all previous records and the trips were well attended.

The bronze mountain register device invented by the Club and which has been adopted by other organizations of the country is now in place on twenty-four peaks of the State, and in addition wooden box registers are in place on three other peaks.

One of the principal activities of the Club during the year covered the study of natural history, by museum visits, summer excursions and illustrated lectures, the work being divided into four sections: one on botany and forestry, another on geography and geology, another on bird and animal life, and the fourth on history and place names, each under a section leader.

The annual illustrated review of the Club—"Trail and Timberline"—appeared in January, 1916, and the Club has since published an illustrated pamphlet entitled "The Squirrels, Chipmunks, and Gophers of Colorado."

JAMES GRAFTON ROGERS, President.

The twenty-third annual outing of the Mazamas was held **THE MAZAMAS** this year at the Three Sisters. It was the largest in the history of the organization, 120 being in camp the entire two weeks. The main party left Portland for Eugene on Saturday night, August 5. At 6:00 o'clock Sunday morning they started on the seventy-five mile ride by automobile up the beautiful McKenzie River to Frog Camp. From this place all tramped the remaining five miles in the twilight to permanent camp on the western slope of the Middle Sister, belated ones being lighted along the way upward through the dark forest by the gleam of candles placed at intervals in the snow.

The Three Sisters region is in the heart of the Cascades about 100 miles south of Mount Hood. Very few sections contain so many interesting climbs within such small compass. All three Sisters, the Husband, Broken Top, and Cinder Cone are some of the ascents that may be made in one day. Two and three day trips were arranged to more distant objectives like Sparks Lake, Horse Lake, and Bachelor Butte.

On August 12th, at 6:45, fifty-two climbers left Camp Riley for the official trip to the Middle Sister. All made the ascent safely before midday. Registration was just completed as a severe electrical storm, which had been gathering over the shoulder of the South Sister, burst on the summit with peals of thunder and a deluge of uncomfortably large hail stones that beat upon the backs of the hastily retreating Mazamas. Turbulent gray clouds, muffling the view in every direction, pelted the crowd with rain as the lower snow fields were reached. Wild gissades were taken fearlessly by those who had declared their intention of walking down every step of the way. Record time was made into camp, where hot soup awaited the dripping but happy mountaineers.

On the afternoon of the 15th, thirty-five left to make the official ascent of the South Sister. With packs on backs, they journeyed to the bivouac camp well up on the slope of the mountain. Thirty reached the summit before noon the next day, but were unable to see the wonderful panorama of snow peaks, from Shasta to Rainier, because the fog lay heavy in all directions. It settled lower during the return to camp, making the seven mile tramp a journey of spectral shapes in the mist.

The stars that peeped out that night gave no hint that the next morning the ground would be covered a foot deep with a blanket of new-fallen snow, but so it was—a complete surprise when heads peered from sleeping-bags to greet the new day. Twenty-seven members, fearing a long storm, left camp before dinner-time, but the remaining hardy spirits played snow games with the zest and eagerness of childhood until the sun vanquished the snow and the flowers reappeared during the last two days.

The North Sister was ascended by only four persons this year as the climb is considered hazardous. The rock is disintegrating so rapidly that places heretofore found safe are now impassable.

The Mazamas broke camp Sunday morning, the 20th, everyone returning regretfully to sea level. The outing will be remembered as being one of the most diversified, as far as scenery and weather are concerned, that the club has ever had.

MARY C. HENTHORNE, Historian.

ROCKY MOUNTAIN CLIMBERS CLUB The summer schedule of 1916 began with a one-hour climb to Needle's Eye, a distance of a mile, and reached a climax in a ten-day outing through the Rocky Mountain National Park, covering a distance of 200 miles, and reaching the bleak summit of Long's Peak, an elevation of over 14,000 feet. Between these extremes in enticing gradation, the schedule offered every variety of mountain

climb. There was a sunrise breakfast at Royal Arch, an afternoon among the Flatirons when the sun tinted the cliffs and threw the pines' shadows far across the valley, an evening beefsteak fry on Red Rocks where we watched the lights of the city kindle in the blue dusk, an all-night camp on Flagstaff Mountain, with a jolly beacon fire, and song and story.

An innovation this year was the three-day outing to James' Peak. Automobiles took our party to a camp six miles below the top. The ascent was made from the north, and the return by way of the south ridge, this circle route offering successive panoramic views of the Moffat country north, and Middle Park on the west, and Clear Creek Canyon on the south.

The annual pilgrimage to the Arapahoes attracted seventy climbers, all of whom reached the South Peak, and most of whom reached also the North Peak and the glacier. On all these longer trips to the Continental Divide, men and women attended in almost equal number, a fact which made the social evening around the camp fire particularly lively.

For the final outing, a camp was pitched on upper Glacier Creek in Estes Park, and from this point of vantage daily excursions were made to Tindall Glacier, Odessa Lake, and Loch Vale.

The ascent of Long's Peak was accomplished from the north, our base camp being one vertical mile and seven horizontal miles below the summit. Our party of thirty-one climbers broke camp before sunrise. Under the careful leadership of Mr. Blakeslee and his assistants, every one of the party reached the top, and even the slowest stragglers were back in camp by 9:00 o'clock at night.

High mountains have individuality, as people have; each offers new attraction to the climber. James' Peak presents the most weird and striking timberline trees, entire forests of them, fantastically sculptured by the wind. Arapahoe offers the best opportunity for the study of a living glacier at close range, and is best for its diversity and profusion of wild flowers. Long's Peak is unsurpassed for its rugged grandeur, for its precipices, and for the wildest ice-and-rock-bound spot in Colorado—Chasm Lake.

The summer of 1916 will be remembered as unusually dry. Wild flowers were not so plentiful as usual in July and August. The foothills were not so bright a green as usual, and the browns and reds of autumn came early. Another result of the dry season was that snow was not so deep on the high ranges. The ascent of Long's we made without touching snow, although one could turn aside from the trail and quickly find whole valleys full of it. The previous summer it was impossible to avoid the snow. Even in mid-August the Climbers' Club spent a busy and dangerous hour chopping a thousand steps in the ice up to the steep slopes of the Trough, where this year the party went dry-shod.

EASLEY JONES,

Member Board of Directors.

SIERRA CLUB The 1916 outing party of the Sierra Club, numbering about 250, reached Kern Canyon July 5th, and after a few days in the canyon shifted camp to Moraine Lake (9,440 feet). From this central camp about half of the party made the ascent of the South Kaweah (13,816 feet). Small groups climbed Needham (12,470), and Sawtooth (12,340 feet), and knapsacked up the Big Arroyo and across the Kern Kaweah Divide; climbed Milestone (13,643 feet), and joined the main party at Junction Meadows. One hundred and eighty members made the ascent of Whitney, (14,501); eleven climbed Williamson, (14,384); other small parties climbed Tunnabora, (13,593);

Tyndall, (14,025); Ericsson, (13,625); and Keith, (13,990). From a camp on Tyndall Creek the whole party followed the newly completed southern end of the John Muir Trail over Shepard and Junction Pass into the Kings River watershed. Junction Pass, (13,400 feet), the highest pass in the United States, has a wonderful outlook over the southern Sierra. Ascents of Brewer, (13,577 feet), South Guard, (12,964), the East Vidette, (12,742), and Gould (13,001), and a knapsack trip to Rae Lake occupied the last week and then the whole party crossed the range at Kearsage Pass and descended into the interior desert basin of Owen's Valley whence it journeyed by railroad home. A New Year outing to Yosemite is planned; likewise a winter sports trip to Truckee in February. The 1917 outing will visit hitherto inaccessible regions at the headwaters of the Kings and San Joaquin Rivers reached now by the John Muir trail.

MARION RANDALL PARSONS.

TRAIL AND MOUNTAIN CLUB The Hawaiian Trail and Mountain Club reports the accomplishment of a few of the larger projects its members have been interested in. The Government this year set aside as a National Park reserve the volcanoes of Mauna Loa, Kilauea, and Haleakala. This is one of the most unusual and interesting of our National Parks. Halemaumau, the pit of Kilauea, is always a moving lake of fire from 500 to 700 feet long, and during the spring of 1916 there was a lava flow from Mauna Loa for several miles from an elevation of about 7,000 feet almost to the ocean. Through the co-operation of the United States Army a trail was surveyed and built up Mauna Loa and this year they hope to have a rest house at the top and another half way down so as to make this trip more accessible. The Commercial Club of Maui last year superintended the building of a concrete rest house and water tank overlooking the crater of Haleakala. The trails around Honolulu have been cared for and kept open and some Sunday trips taken.

OLIVE RAND.

BOOK REVIEWS

Edited by Lulle Nettleton

The Mountain. Scribner's Sons, \$1.25. A charming volume by John C. Van Dyke. (Supplied by Bureau of Associated Mountaineering Clubs).

The author has succeeded in giving us the pictorial in mountains, using science by way of illustrating the bases of form and color, and history and narrative for the picture. At first, the author views the mountains from afar, from the great prairie where the prairie grass reached up to the ponies' knees, the sun came up out of it and went down into it when "a wide horizon stretched around one in a ring," and "a light-shot sky of blue came down to meet it." Then he goes on into the mountains, tells of the romance and inspiration of hills, the fascination of the timberline and uplands; leads us to mountain waters, glaciers, and avalanches and up into the world of blue and silver which lies about the snowy summits. Of the sky from Mount Rainier he says, "No precious porcelain out of China or Japan ever had such a quality of color. It is not a tone under a glaze, but a vast depth, a sea of ether, in which the eye wanders and loses itself in a mystery of infinite hue." L. N.

Tourists' Guide to the Northwest. By Ruth Kedzie Wood (F. R. G. S.) Dodd, Mead, & Company, \$1.75. (Supplied by Bureau of Associated Mountaineering Clubs of America).

"The Right Honorable Viscount Bryce, O. M., has said:—'If a man enters the finest picture gallery in Europe knowing nothing at all about painters whose work is there stored, their dates, the schools they belonged to, or the

subjects they painted, he will derive very little benefit and will carry away but a confused impression; but a little preliminary study will enable him to appreciate and enjoy pictures in a way which will be profitable all the rest of his life.'

"So it is when we enter the vast gallery of Nature. If we start to travel with a certain amount of preliminary knowledge, our travels repay us more and more at every step." The author after the preceding introduction has filled a good sized volume full of valuable information to the residents of the Northwest as well as tourists, for it gives an interesting chapter full of general information concerning the American Northwest, details of routes, hotels, descriptions of scenery, lists of summer resorts, and excellent maps of Washington, Oregon, British Columbia, and Alberta. L. N.

Through Glacier Park, The Log of a Trip with Howard Eaton. By Mary Roberts Rinehart. Houghton, Mifflin Company, \$0.75 net. (Supplied by the Bureau of Associated Mountaineering Clubs of North America).

This little volume is a delight from start to finish and should arouse enthusiasm in the heart of any lover of the outdoor life. She says, "If you love your country, if you like bacon, or will eat it anyhow; if you are willing to learn how little you count in the eternal scheme of things, if you are prepared, for the first day or two, to be able to locate every muscle in your body and a few extra ones that have crept in and are crowding, go ride in the Rocky Mountains—and save your soul." This little story brings back the pleasant memories of the Mountaineers' expedition through Glacier Park and is a welcome addition to the Mountaineer library. L. N.

Blackfeet Tales. By James Willard Shultz. Houghton, Mifflin Company, \$2. (Supplied by the Bureau of Associated Mountaineering Clubs of North America).

James Willard Shultz is an intimate friend of the Blackfeet Indians and hunted and explored the Glacier Park country before it had been created into a national park. He accompanied George Bird Grinnell on his expeditions and named many of the most notable places in the park. His explanation of several names which aroused so much discussion in our party of 1914 will be especially interesting to Mountaineers. The "Story of the First Horses" gives the reason for the naming of the Lakes which were such a delight to the members who visited them from Flat Top. The naming of Grinnell Glacier and Mountain, the legend of Iceberg Lake, the first ascent of Going-to-the-Sun, all are fascinating. The volume should prove a popular one.

The illustrations are unusually good.

L. N.

Rambles in the Vaudese Alps. By F. S. Salesbury. E. P. Dutton & Company, 681 Fifth Avenue, New York, \$1.00. (Supplied by the Bureau of Associated Mountaineering Clubs of North America).

In this volume the author gives his impressions gathered in his rambles among the Alps during his holiday at Cryon, Vaud, in the summer of 1908.

The author gives a bit of advice to one about to enjoy a vacation: "Don't take your holiday with a rush if you mean it to be any good to you. Take the first day or two quietly and slide gently into it." Acting upon his own advice, he rambles in a leisurely fashion through Alpine villages and among Alpine parks. He passes into storms and clouds and describes the unusual effects of light and shade which can be seen only by one stationed above the lower layer of atmosphere.

Throughout the volume are delightful accounts of Alpine flowers and scenery, mountains, lakes, and chalets. L. N.

Our American Wonderlands. By George Wharton James. A. C. McClurg. (Supplied by the Bureau of Associated Mountaineering Clubs of North America).

The admirers of Mr. James' charming volume, *Lake of the Sky, Lake Tahoe*, will welcome his later beautifully illustrated volume. The wonderlands of the southwestern region of the United States are described in detail. The Grand Canyon, the Cliff Dwellings, the Indians of the region, their fantastic dances and customs, are charmingly presented. All of the national parks are described. The volume will prove a popular one among out-of-door people.

L. N.

Chronicles of the White Mountains. By Frederick W. Kilbourne. Houghton, Mifflin Company, \$2.00. (Supplied by the Bureau of Associated Mountaineering Clubs).

Mr. Frederick Kilbourne delightfully tells the story of one of the most beautiful and popular of American playgrounds from the sixteenth century to the present day. The history of the early explorers, settlements, and settlers reads like a romance, and to Mountaineers who are accustomed to our unpeopled mountains and rough trails the accounts of trails and pathfinders, early hotels, and the development of the White Mountains into a popular summer playground and, of late years, as a winter resort, can not help but prove of intense interest. The volume is sure of a wide circulation.

L. N.

Camping and Woodcraft. By Horace Kephart. Vol. I, \$1.50. Outing Publishing Company. (Supplied by the Bureau of Associated Mountaineering Clubs of North America).

This useful and altogether practical little volume will claim the closest attention of Mountaineer readers. Every emergency of camping seems to be provided for—camp bedding, clothing, personal kits; how to deal with pests of the woods; cookery and recipes, even camp desserts, are suggested. The chapter on campfires will be of especial interest to Mountaineers and is sure of wide popularity.

L. N.

Scribner's for September, 1916, contains a masterly article, "The Call of the Mountains," by Mr. Leroy Jeffers, F. R. G. S. The author was instrumental in the formation of the Bureau of Associated Mountaineering Clubs of America and is a climber of wide experience. The article tells of the attempt upon Assiniboine and of the constant storms and roar of avalanches. Mr. Jeffers' account of the climbing in the vicinity of Lake Louise, Glacier, Field, and the Yoho are exceptionally interesting. The article closes with a tribute to the peerless Mount Robson. Mr. Jeffers says, "As we crossed Snowbird Pass there burst upon us one of the world's greatest mountain views, the eastern face of Mount Robson. Viewed as yet by a mere handful, this wilderness of snow and ice, of terrific precipices and sublime heights, hold much in keeping for all who seek the solitude and companionship of the mountains, that they may worship amid their eternal sanctuaries." The article is superbly illustrated.

L. N.

Alaskan Glacier Studies, published by the National Geographic Society, is a splendid volume sent to the Mountaineers through the kindness of Professor Lawrence Martin who became interested in the Association of Mountaineering Clubs. The book is by Ralph Stockman Tarr, late professor of physical geography, Cornell University, and Professor Martin, assistant professor of physiography and geography at University of Wisconsin. The volume is the result of three years' study of the glaciers of Alaska, financed and directed by the National Geographic Society through its Committee on Research. Through the investigations new light has been thrown upon the ice age in America, new information has been collected as to processes of glaciation, and

a new view has been gathered as to the effect of earthquakes and volcanic action upon glaciers. Alaska was selected as the best field in the world for these investigations, its glaciers being the largest in the world except those of polar regions. The book is profusely illustrated and one of the most valuable volumes in our growing library.

The Geographical Review published by the American Geographical Society of New York in July, 1916, is an interesting number, a particularly notable article being "Recent Mountaineering in the Canadian Alps," by Charles E. Fay. The article is beautifully illustrated and accompanied by an excellent sketch map of the Canadian Alps.

Scribner's for October contains a fascinating article by Miss Dora Keen entitled, "Climbing the Giant's Tooth." As usual the story is well illustrated with photographs by the author and holds the reader's closest attention throughout.

The Canadian Alpine Journal is a beautifully illustrated publication containing several accounts of ascents by members of the Club. "Mt. Tetragona, a First Ascent in Labrador," by A. P. Colman; "Climbs and Explorations in the Purcell Range in 1915," by W. E. Stone; "First Ascent of Mt. Edith Cavell and Explorations in the Mt. Longstaff Region," by E. W. D. Holway, and a description of Mt. Alexander MacKenzie, by Mary L. Jobe; "Experiences in the Canadian Rockies in 1915," by W. A. Hickson, and "Elusive Mount Molock," by Paul A. W. Wallace, make a volume of interest to all mountain people. The long list of members on Imperial War Service evidences the loyalty and patriotism of the Canadian Alpinists.

L. N.

REPORT OF COMMITTEE ON GEOGRAPHICAL NAMES

The following report by the Committee appointed to recommend names for the locality of Snoqualmie Lodge was approved by the Board of Trustees, sent to the U. S. Board of Geographic Names, and the names officially adopted by them with the exception of Sitkum Creek, which it will be noted does not appear on the quadrangle.

1. **MOUNTAINEER CREEK:** This creek is indicated upon the Snoqualmie quadrangle as flowing westerly into the South Fork of the Snoqualmie River. It is the first stream (as indicated upon the quadrangle) to join the South Fork below the mouth of Denny Creek. It is the creek into which drain the so-called Big Lake and Little Lake near the Lodge. The name, Mountaineer Creek, had already been given this stream where it crosses the state highway.

2. **DIVIDE LAKE:** This is the lake lying on top of the Cascade divide at the head of Mountaineer Creek; (the quadrangle shows only one lake where two should be shown. It is impossible to determine from the quadrangle whether the lake shown is Divide Lake or the lake sometimes known as "Big Lake.") Divide Lake is already known to some of the Mountaineers by that name.

3. **ROCKDALE CREEK:** This is the creek already commonly known by this name, which flows past, or rather over the western portal of the Chicago, Milwaukee & St. Paul Railway tunnel and (as shown upon the quadrangle) joins the South Fork of the Snoqualmie River next below Mountaineer Creek.

4. **ROCKDALE LAKE:** This lake is indicated upon the quadrangle, and lies on Rockdale Creek at an elevation of about 3,600 feet. It is already known to some of the Mountaineers as Rockdale Lake.

5. **SURVEYORS LAKE:** This lake is shown upon the quadrangle as lying at the head of Rockdale Creek at an elevation of about 3,900 feet. It is already known to some of the Mountaineers as Surveyors Lake. The slashing made by the railroad engineers in surveying for the construction of the railroad tunnel, touches the southerly end of this lake.

6. **OLALEE (O' la lee) CREEK:** This creek is shown upon the quadrangle as flowing northwesterly into the South Fork of the Snoqualmie River. It is the first stream (as indicated upon the quadrangle) to join the South Fork below the mouth of Rockdale Creek.

7. **OLALEE MEADOW:** This meadow is shown upon the quadrangle, and lies at the head of Olalee Creek at an elevation of about 3,700 feet. Olalee is the Chinook name for "berry." This meadow abounds with huckleberries.

8. **SITKUM CREEK:** This creek is not shown upon the quadrangle. It is one of the creeks crossing the new trail between Rockdale and the Lodge. Sitkum is the Chinook word for "part," or "half-way."

9. **KEEKWULEE (Keek' wu lee) FALLS:** These are the lowest falls of Denny Creek, distant about one-third of a mile from the South Fork of the Snoqualmie River at an elevation of about 2,500 feet. Keekwulee, in Chinook, means "to fall down."

10. **SNOWSHOE FALLS:** These are the highest falls of Denny Creek, and are about one and one-fourth miles above Keekwulee Falls. The elevation of the crest of Snowshoe Falls is about 3,600 feet.

11. **KALEETAN (Ka lee' tan) PEAK:** Kaleetan is the Chinook word for "arrow." Kaleetan Peak is the one which some of the mountaineers have called Matterhorn. This peak is shown upon the quadrangle as having an elevation of about 6,100 feet. It lies north and slightly west of Chair Peak, and about one mile distant therefrom (as indicated upon the quadrangle).

12. **MELAKWA (Mel' a kwa) LAKE:** This is a small lake draining into Tuscohatchle Creek. It lies south and a trifle west of Chair Peak and a little more than a mile distant therefrom (as indicated upon the quadrangle). Melakwa is the Chinook word for "mosquito."

13. **HEMLOCK PASS:** This is the pass leading from the head of Denny Creek to Melakwa Lake. Its elevation, as shown by aneroid, is 4,800 feet, although the contours upon the quadrangle indicate a somewhat lower elevation.

14. **THE TOOTH:** This name has been given to a prominent sharp fin-like elevation upon the ridge between Chair Peak and Denny Mountain. The Tooth has heretofore been known to some of the Mountaineers as "Denny Horn," and to others as "Denny Tooth."

15. **TINKHAM PEAK:** This peak is upon the main divide of the Cascade Range, and rises above Mirror Lake, which lies at its eastern base. The quadrangle gives this peak a height of 5,356 feet. Abel W. Tinkham, under orders from Governor Isaac I. Stevens, made a reconnaissance through the Snoqualmie Pass on snowshoes with two Indians, in January, 1854, a few days after Captain George B. McClellan, who had been entrusted with the same duty by Governor Stevens, had failed in the attempt.

16. **CHIKAMIN (Chik' a min) PEAK:** Chikamin is the Chinook word for "metal" or "money." It is the peak lying at the head of Gold Creek, about two miles east of Huckleberry Mountain. It carries a glacier upon its north face, and the peak itself is immediately above the letter "e" in the word "Huckleberry" upon the quadrangle. According to the contours of the quadrangle, it has an elevation of 6,900 or 7,000 feet.

17. **LODGE LAKE:** The lake heretofore called Big Lake, at the head of Mountaineer Creek and near the Snoqualmie Lodge.

GEORGE E. WRIGHT,
C. G. MORRISON,
ALIDA J. BIGELOW,

Committee.

SECRETARY'S REPORT FOR THE YEAR ENDING NOVEMBER 30, 1916

The purposes of The Mountaineers, as expressed in the Certificate of Incorporation, are:

“ . . . the exploration and study of mountains, forests, and watercourses of the Northwest; to gather into permanent form the history and traditions of this region; to preserve by encouragement of protective legislation or otherwise, the natural beauty of Northwest America; to make expeditions into these regions in fulfillment of the above purposes; to encourage a spirit of good fellowship among all lovers of out-door life. . . .”

The following brief summary of the activities and achievements of the organization during the past year should indicate whether we are doing anything to justify our existence.

The Annual Outing of the Mountaineers took place in the region of Mount Baker and Mount Shuksan in the Cascade Mountains, August 5 to August 27, and, except from a financial standpoint, was a great success. The outing was put on in the face of very discouraging conditions. The lateness of the season and unusually heavy snowfall made scouting difficult and necessitated packing feed for the horses. This, together with the small number of the party, made it obvious that the outing would mean a considerable financial loss to the organization, but the Board of Trustees unanimously decided notwithstanding this, to carry the outing through as planned. The party numbered fifty-four of whom thirty reached the top of Mount Baker, 10,780 feet, and twenty-five the top of Mount Shuksan, 9,038 feet. The climb of Mount Shuksan was notable in that there had been only one previous ascent by a small party some ten years ago, and in that such a large number made the difficult and dangerous climb without accident. In addition to the Summer Outing there were twenty-eight Saturday or Sunday walks in the vicinity of Seattle, and six special outings of several days duration to more distant points.

Something over a year ago our Vice-President, Mr. Wright, succeeded in interesting the Hon. Stephen G. Mather, Assistant Secretary of the Interior, in the erection of a shelter hut at Camp Muir on Mount Rainier. Plans prepared by Mr. Carl F. Gould, one of our members, and estimates of the cost of the building, were sent to Mr. Mather who immediately approved the proposition and ordered the work done. The hut, built of stone, has recently been completed at a cost of \$555.00. Its dimensions are 8x20 feet, seven and one-half feet high inside, and the walls are three feet thick. The hut is to be furnished with bunks, blankets and an oil stove.

During the last summer, Mr. Fromme, Supervisor of the Olympic National Forest, extended the Dosewallips trail from a point near the head of the Dosewallips over the divide and down the Hayes to the Elwha. This extension has been made by Mr. Fromme partly in consideration of the plans of The Mountaineers to have their outing in the summer of 1917 in the Olympics. In the absence of such a plan, the Hayes River Trail would not have been put in until some later date. Mr. Fromme is also considering the extension of the so-called "Sky Line Trail" in the locality of Three Lakes along the head of the ridge to the head of Promise Creek. If such extension is made, it is expected that The Mountaineers will contribute toward the connection of this trail with the Low Divide. The Board of Trustees last winter made an appropriation for the extension of the Elwha Trail through the Dodwell and Rixon Pass to the head of the Queets. Owing to the lateness of the season

and the scarcity of labor, it has been impossible this year to do any work on this extension.

Through the efforts of Mr. McGregor, The Mountaineers last winter acquired seventy-four acres of land in Kitsap County to be retained as a Rhododendron Preserve. There is an old log house on the place which is now provided with a range and cooking utensils and a few articles of furniture. The tract has been surveyed under the direction of Mr. McKee.

At Snoqualmie Lodge, Wright's Trail from Rockdale to the Lodge has been completed and is now in condition for pack horses. A terrace has been built in front of the Lodge, a few trees have been removed to afford better views, and a woodshed has been built.

The Board of Trustees adopted official names for the two Lodges, the one near Rockdale in the Cascades being called Snoqualmie Lodge, and the one near Chico, in Kitsap County, Kitsap Lodge. Both Lodge Committees have been made standing committees.

A committee was appointed last summer to give names to mountain peaks, streams, and lakes in the vicinity of Snoqualmie Lodge, and names for many such places have already been suggested by the committee, adopted by our Board of Trustees, and submitted to the National Board of Geographic Names.

The Club was successful in inducing the National Board of Geographic Names to restore the name "Indian Henry's Hunting Ground" to that region in Mount Rainier National Park.

In April of this year The Mountaineers gave an exhibition of mountaineer paraphernalia which was largely attended, not only by members, but by the public generally. So far as we know it was the first exhibition of this kind given in Seattle.

There was formed this year, under the auspices of the American Alpine Club, a Bureau of Associated Mountaineering Clubs of North America, and The Mountaineers has affiliated with that organization. The purpose of the Bureau is to promote co-operation between the various mountaineering organizations of the country, and to provide a clearing house of useful information on mountaineering subjects. Mr. Leroy Jeffers of the New York Public Library is the General Secretary of the Bureau.

Upon the recommendation of Mr. Otis, chairman of the Auditing Committee, the accounting system of the organization has been standardized and all accounts of officers and committees are now kept in accordance with a simplified and standardized method.

The stereoptican lantern slides of the Club are now in charge of Mr. Pugeley who is engaged in assembling, arranging and cataloging them.

The membership shows a decrease from last year. The total number of members given in the Secretary's Report for last year was 613; the total number at the present time, including pending applications, is 599, showing a falling-off of fourteen members. Of the total membership the Tacoma Branch has eighty-three, the Everett Branch fifty-six, and the Monroe Branch eight, leaving 452 in the main organization. There is a considerably greater proportion of women in the organization, there being 269 men and 330 women. An effort should be made to get more men. The decrease in membership is a step in the wrong direction and everyone should make it his personal business to secure new members.

IRVING M. CLARK, Secretary.

MONTHLY MEETINGS

December, 1915—November, 1916

The monthly meetings of the year have been varied in scope and interest.

December 17, 1915. Chamber of Commerce rooms. Illustrated lecture, "Various Phases of Animal and Bird Life in Mount Rainier National Park," Prof. J. B. Flett, one of the park rangers.

January 21, 1916. Chamber of Commerce rooms. Botany evening. Specimens from the Mountaineers' Herbarium were displayed. Lecture, "Denatured Botany of the Puget Sound Region with Respect to Human Interests," Dr. George Burton Rigg, University of Washington.

February 18, 1916. Seattle Fine Arts rooms, Ballargeon Building. Illustrated lecture, "The Development of Strathcona Park on Vancouver Island," Mr. R. H. Thomson. In introducing him, Prof. Meany sketched the history of Nootka Sound, one of the gateways to Vancouver Island.

March 17, 1916. Fischer Hall. Mr. Leslie F. Curtis, chairman of the Outing Committee, presented the plans for the 1916 Mount Baker and Mount Shuksan Outing. Mr. Frank Terrace of Orillia, talked on the subject, "Good Roads." Mr. Samuel Hill lectured on "Good Roads," illustrated with a series of beautiful colored photographs and a wonderful set of dissolving views of the Columbia River and mountain scenes.

April 22-26, 1916. Rooms 211-214, White Building. Under the direction of Dr. J. N. Bowman, Chairman of the Entertainment Committee, an exhibition was made of mountaineer outfits, clothing, lists and illustrations of commissary, packing devices, sleeping bags, tents, paraphernalia for local walks, mountain climbing, and winter sports; first aid outfits and directions for their use; literature and maps; flowers from the Mountaineers' Herbarium; and information relative to life out-of-doors.

May 19, 1916. Chamber of Commerce rooms. Illustrated lecture, "The Proposed Outing for the Summer of 1916," Mr. Leslie F. Curtis, Chairman of the Outing Committee.

June, July, August. No meetings.

September 29, 1916. Chamber of Commerce rooms. Business meeting. Nominations made for the Board of Directors for the ensuing year.

October 20, 1916. Chamber of Commerce rooms, Central Building. Illustrated talks, "Local Walks." Speakers: Miss Stella Scholes, Tacoma; Dr. H. B. Hinman, Everett; Mr. E. W. Harrison, Seattle.

November 17, 1916. Chamber of Commerce rooms. Illustrated lecture, "The 1916 Summer Outing," Mr. Leslie F. Curtis, Chairman of the Outing Committee.

GERTRUDE INEZ STREATOR, Historian.

REPORT OF LOCAL WALKS COMMITTEE

The Local Walks Committee submits the following report for the year ending October 31, 1916:

The year under consideration is, from the committee's standpoint, especially notable for its lack of public holidays on Saturdays or Mondays, limiting very much the territory accessible for week-end outings. This, together with a long and severe winter and an unusually large number of rainy Sundays, has considerably curtailed attendance on the walks and outings.

During the year, there were held twenty-eight walks and six special outings, as follows:

	Average Attendance	Average Mileage
3 long Sunday walks.....	22	16.66
18 short Sunday walks.....	96	9.39
5 short afternoon walks.....	112	6.00
2 campfires	43	—

Total attendance, 2,597.

On the six special outings five ascents were made, McClellan Butte (5,175 feet), Granite Mountain (5,820 feet) twice, and Rattlesnake Ridge (3,550 feet) in the Cascades and Mount Baldy (about 1,600 feet) in the Blue Hills. Another of the Blue Hills was climbed on a local walk. One special outing had to be called off on account of lack of interest.

Lincoln's Birthday, February 12, falling on a Saturday made our first long week-end and was appropriately celebrated by a snowshoe visit to our Snoqualmie Lodge. Arrived there the party had to dig down through the snow to reach an upstairs window and later to tunnel to the woodshed. On account of unpropitious weather the climb of Rockdale Peak scheduled for Sunday had to be abandoned. A snowshoe trip over the ridge to Hyak through the snow-laden forest, however, will be long remembered by those participating in the outing.

April 29 and 30 found us attacking McClellan Butte. The party bivouaced on five feet of snow near the ruins of the old mining cabin on Alice Creek and early next morning started the ascent. The snow was soft and made rather hard going so that it was noon by the time the summit was reached. We had a perfect day and Mounts Rainier, Hood, Adams, Stuart, and Glacier Peak, together with the lesser peaks showed up splendidly. Most of the descent was made in one long glissade of about 2,500 feet. A metal record tube was placed on the summit.

Granite mountain was climbed in May in a snowstorm by ten out of a party of eighteen. The others elected to stay at Snoqualmie Lodge and spend the day working on the building or outdoors in its vicinity.

The annual rhododendron walk in May provided an opportunity for a special outing the same week-end to our recently acquired Kitsap Lodge. This was made a lazy trip so the dunnage was hauled from Chico in a wagon and a professional dishwasher hired. In addition to the thirty-one from Seattle, twenty-two of the Tacoma Mountaineers were brought to join the party at Chico by Dr. J. H. Whitacre and J. C. Sails in their power boats. As we had fifty-three on the outing and dunnage was not to be packed by its owners we had plenty of it, necessitating two trips with the wagon. Through the efforts of Miss Mary Paschall and her neighbors, Saturday evening was enlivened by Morris dancing in impromptu costume, wonderfully picturesque in the light of a campfire outdoors. Mount Baldy was climbed by the most strenuous on Sunday.

A bivouac near Cedar Falls with a climb of Rattlesnake Ridge was scheduled for June. Views of the South and Middle Fork Snoqualmie and the Cedar River valleys are to be had from the ridge in clear weather but the party was not favored by such on this occasion, although the drifting clouds gave intermittent glimpses of what might have been. Several small parks containing alpine wild flowers in full bloom were found.

Fourth of July coming on Tuesday made a very long but somewhat broken up week-end, so headquarters were established at Snoqualmie Lodge from which numerous small climbs and walks were made.

On the McKenna Falls walk a representative of the Boy Scouts was with us and at lunch time made a short and interesting address on their organization. It is believed that short addresses given in this way on subjects of interest to Mountaineers could very profitably be had on some of the walks.

Respectfully submitted,

E. W. HARRISON, Chairman.

LOCAL WALKS COMMITTEE
FINANCIAL STATEMENT FOR YEAR ENDING OCTOBER 31, 1916

Receipts

October 31, 1915, balance on hand.....	\$ 57.43	
Receipts for year to October 31, 1916.....	1,202.20	
		\$1,259.63

Disbursements

Boat charters and fares.....	\$ 574.60	
Railroad transportation	242.15	
		\$ 816.75
Coffee	22.15	
Sugar	5.40	
Milk	5.75	
Other commissary	83.92	
		\$ 117.22
Cooks and helpers.....	5.00	
Lodge fees	24.35	
Freight, drayage and packing.....	11.10	
Printing, postage and telephone.....	5.76	
Outfit—new and repairs.....	4.00	
Scouting	28.80	
Committee expenses	74.55	
Reunions	2.00	
Refunds to members.....	28.15	
		\$1,117.68
Transferred to General Treasurer.....	80.00	
		\$1,197.68
October 31, 1916, balance on hand.....	61.95	

Respectfully submitted, \$1,259.63

E. WILFRID HARRISON, Chairman.

Audited: J. C. YOUNG and R. E. LEBER.

REPORT OF THE EVERETT MOUNTAINEERS
For Year Ending September 29, 1916

Number of members.....	57
" " " business meetings	2
" " " lectures	2
" " " lectures given out of town.....	4
" " " local walks	15
" " " skating parties	1
" " " mountain trips	7
Average attendance local walks.....	22.3
" " " mountain trips	21
Balance in treasury	\$ 153.94

H. B. HINMAN, Chairman.

REPORT OF THE TACOMA MOUNTAINEERS

Membership—		
Men		34
Women		55
Total		89
New members during the year.....		27
Withdrawals		10
Gain		17
Meetings—		
For business		3
For lantern-slides		3
Social		3
Total		9
Of Executive Committee.....		4
Out-of-door Activities—		
Local walks		20
Week-end outings and moonlight walks.....		4
Special outings (midwinter and Labor day).....		2
Total		26
Local walks, attendance.....		652
Distance walked in miles, about.....		250
Week-end outings, attendance.....		116
Distance walked in miles, about.....		29
Special outings, attendance.....		78
Distance walked in miles, about.....		73
Totals		746 352

STELLA SCHOLES, Secretary-Treasurer.

FINANCIAL STATEMENT OF 1916 OUTING

On account of the small number of members registering for the Outing and the unexpected expense of shipping the pack train by train and of feeding the horses, the 1916 Outing was conducted at a considerable financial loss.

Expenses—	Gross	Salvage	Net
Miscellaneous	\$ 119.75	\$ 3.75	\$ 116.00
Two Weeks' Party.....	10.00	.50	9.50
Outfit	132.83	15.95	116.88
Packing	1,467.80	1,467.80
Cooks and Helpers	299.40	299.40
Transportation	255.00	255.00
Provisions	683.67	62.77	620.90
Cash to Treasurer.....	.50	.50
	\$2968.95	\$83.47	\$2,885.48
Receipts from Members.....			2,073.76
Net Loss			\$ 811.72

LESLIE F. CURTIS,
Chairman Outing Committee.

KITSAP LODGE COMMITTEE REPORT FOR YEAR ENDING OCTOBER
31, 1916

Receipts	
Permanent construction	\$ 424.85
Maintenance and operation.....	30.35
Overdraft	1.24
Disbursements	
Permanent construction	\$ 424.89
Maintenance and operation.....	31.55
\$ 456.44	
Assets	
Ground	\$ 371.00
Equipment	53.59
Liabilities	
Surplus	\$ 423.35
Overdraft	1.24
\$ 424.59	
Audited: J. C. YOUNG and R. E. LEBER. P. M. McGREGOR, Chairman.	

REPORT OF SNOQUALMIE LODGE COMMITTEE.

The Snoqualmie Lodge Committee submits the following report for the year ending October 31, 1916.

Cash on hand November 1, 1915.....	\$ 63.29
Receipts: Fees	\$ 122.25
Commissary	151.85
Donations	8.15
	282.25
Advanced by Chairman.....	53.40
	\$ 398.94
Disbursements: Permanent Construction	\$ 164.74
Maintenance and Operation.....	217.27
Rents, Insurance and Miscellaneous.....	16.93
	\$ 398.94

The last year has seen considerable improvement at Snoqualmie Lodge: the Wright trail to Rockdale has been re-scouted and completed, giving a good trail with gradual ascent and splendid views; a trail has been cut half way around Big Lake; a woodshed has been built east of the entrance door with a connecting passage that will keep wood and workers dry and serve as a vestibule; the terrace has been completed and careful cutting of trees has made the Denny Creek basin and surrounding peaks show up delightfully from the terrace and the living room windows; and, joy of the cooks, a fine range has been set up, gift of J. Fred Blake, and an extension put on the kitchen chimney makes the draft good in all winds. The unusual snowfall around the Lodge last February was very beautiful and interesting and received publicity in Miss Nettleton's story in the Town Crier and Mr. Depue's illustrated article in the September Outing.

The register shows 477 visitors from October 1, 1915, to November 1, 1916.

A voluntary trail committee lately organized and now receiving subscriptions, promises to add greatly to the value of Snoqualmie Lodge by building trails to Silver Peak, the Denny Creek country, and other attractive fields for hikers.

CLAYTON CRAWFORD, Chairman.

TREASURER'S REPORT FOR YEAR ENDING OCTOBER 31, 1916

	Receipts	Disbursements
Balance November 1, 1915.....	\$ 352.22	-----
Dues	1,701.00	-----
Reserve for Permanent Fund.....	198.06	-----
Permanent Fund (deposited in Bank for Savings).....	-----	\$ 178.06
Snoqualmie Lodge subscriptions.....	346.50	-----
Snoqualmie Lodge (ground rent).....	-----	5.05
Kitsap Lodge (permanent construction).....	-----	423.55
Kitsap Lodge (maintenance and operation).....	-----	26.50
Magazine cost	-----	715.85
Magazine sales	126.44	-----
Bulletins and prospectus.....	-----	425.20
Advertising in publications.....	284.50	-----
Interest on bonds.....	71.00	-----
Pins and fobs.....	10.00	24.00
Miscellaneous	30.90	161.66
Local walks	80.00	-----
Outing, 1915	52.73	-----
Outing, 1916	2,072.76	2,602.00
Outing, 1917	-----	8.00
Pictures, slides and albums.....	-----	50.20
Stationery and postage.....	-----	116.81
Assistant to Secretary.....	-----	101.10
Refunds	-----	202.00
Everett	\$ 64.00	-----
Monroe	12.00	-----
Tacoma	126.00	-----
Entertainment Committee	-----	39.70
Suspense account, check returned, N. S. F.....	-----	3.00
Balance October 31, 1916.....	-----	243.43
	\$5,326.11	\$5,326.11

Assets

Cash	\$ 243.43
Investments (bonds)	1,100.00
Permanent Fund (bonds and savings deposit).....	1,204.76
*Snoqualmie Lodge	2,900.00
Kitsap Lodge	423.55
Accounts receivable	3.00
	\$5,874.74

Liabilities

Surplus		\$5,081.47
Deduction: Loss 1916 Outing.....	\$ 812.22	
Advanced 1917 Outing.....	8.00	
	<u>\$ 820.22</u>	
Surplus 1914-15 Outings.....	105.75	
	<u>714.47</u>	
Surplus, Outings (loss).....		\$4,367.00
Reserve for Permanent Fund.....		1,224.76
Accounts payable (1916 Outing).....		282.98
		<u>\$5,874.74</u>
*Note: Subscriptions to October 31, 1916.....		\$2,626.50
Due The Mountaineers for cash advanced.....		273.50

PERMANENT FUND

Nov. 1, 1915	Bonds	\$ 600.00
	Deposit in Bank for Savings.....	426.70
Jan., July, 1916	Interest on savings deposit.....	20.06
	Interest on bonds.....	42.00
Oct. 31, 1916	Initiation fees for the year, deposited in Bank for Savings	\$ 116.00
	Cash included in Metropolitan Bank bal- ance	20.00
		<u>\$ 136.00</u>
		<u>\$1,224.76</u>

H. A. FULLER, Acting Treasurer.

CHAS. ALBERTSON, Treasurer.

Audited: J. C. YOUNG and R. E. LEBER.

ERRATA

The following errors occurred in The Mountaineer for 1915:

- Page 40. Lieutenant Emmons should read Professor Samuel F. Emmons.
- Page 41. Under head of Sources, Dr. F. W. Tolmie's diary should read Dr. William Fraser Tolmie's diary.
- Page 46. Foot note. U. S. Geographical Survey should read U. S. Geological Survey.

The Mountaineers

**THE MOUNTAINEERS
OFFICERS AND TRUSTEES**

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

Winona Bailey	H. B. Hinman
L. F. Curtis	P. M. McGregor
A. H. Denman	Lulle Nettleton
Charles Hazlehurst	J. H. Weer

STANDING COMMITTEES

Outing Committee

L. F. Curtis, chairman

Legislative Committee

A. H. Denman, chairman

Local Walks Committee

E. Wilfrid Harrison, chairman

Snoqualmie Lodge Committee

E. W. Allen, chairman

Kitsap Lodge Committee

Mary E. French, chairman

Entertainment Committee

Lulle Nettleton, chairman

Membership Committee

A. L. Loveless, chairman

Auditing Committee

J. C. Young, chairman

Publication Committee

Winona Bailey, editor

EVERETT BRANCH

H. B. Hinman, chairman and member of Board of Trustees
Esther Elliot, secretary G. A. Church, treasurer
L. F. Fairbrook, chairman Local Walks Committee

TACOMA BRANCH

J. H. Weer, president N. J. Whitacre, vice-president
Stella Scholes, secretary-treasurer
A. H. Denman, member Board of Trustees
R. S. Wainwright, chairman Local Walks Committee

MONROE BRANCH

E. T. Bascom, president H. C. Tooker, vice-president
Whit. H. Clark, secretary

MEMBERS

November 1, 1916

(Place is Seattle unless otherwise stated)

- Abel, H. V., 2608 E. Spring St.
 Abel, Mrs. H. V., 2608 E. Spring St.
 Acheson, N. H., 905 State St., Emporia, Kansas.
 Acheson, Thomas J., P. O. Box. 123.
 Albertson, A. H., 727 Henry Bldg.
 Albertson, Chas., 727 Henry Bldg.
 Alden, Charles H., 927 Henry Bldg.
 Allen, E. W., 402 Burke Bldg.
 Anderson, Crawford, 1520 7th Ave. W.
 Anderson, Helen D., 264 Colman Bldg.
 Anderson, Mrs. Hila B., 128 Harvard Ave.
 Anderson, Jennie L., 1902 Victoria Ave.
 Anderson, Nelson R., 1520 7th W.
 Anderson, Ruth F., 4230 14th Ave. N. E.
 Anderson, S. Herbert, 5018 20th N. E.
 Anderson, Mrs. S. H., 5018 20th Ave. N. E.
 Anderson, Wm. H., 4464 Fremont Ave.
 Andres, Mary H., 413 15th Ave. No.
 Andrews, C. L., 1802 E. 73rd St.
 Auzias De Turenne, R., 1205 E. Prospect St.
 Bailey, Winona, 1426 Warren Ave.
 Baker, B. W., 305 Lowman Bldg.
 Baker, Mary Nelkirk, Seattle Public Library.
 Baker, Mattie S., 1724 11th Ave.
 Barnes, C. A., Jr., 609 Federal Ave.
 Barry, Cornelius, 4759 Brooklyn Ave.
 Batson, Mabel A., 1612 Boylston Ave.
 Bauer, Lucy E., 1112 Cobb Bldg.
 Baxter, W. D., 9320 Waters Ave.
 Beaton, Jessie, 1505 16th Ave.
 Bebb, Mrs. Helen M. Hubbell, 1000 15th Ave. N.
 Beechler, Glenn C., 211 New York Blk.
 Belford, Ana I., 109 15th Ave. N.
 Belt, Mrs. Fannie S., 414 16th Ave. No.
 Belt, H. C., 414 16th Ave. No.
 Bennett, Edith Page, 3134 37th Place S.
 Bennett, H. B., 5249 University Blvd.
 Bennett, Mrs. H. B., 5249 University Blvd.
 Bigelow, Alda J., 1139 18th Ave. N.
 Bishop, Lottie G., 174 Grand Ave., New Haven, Conn.
 Bissell, Morton L., Y. M. C. A.
 Bixby, C. M., 1404 24th Ave.
 Bixby, Mrs. C. M., 1404 24th Ave.
 Blackwood, Henry, U. S. Customs.
 Blake, J. Fred, 415 Pike St.
 Blanchard, J. A., Hotel Stevens.
 Blanchard, Mary, 4205 East Newton St.
 Blough, Allie, 4713 14th Ave. N. E.
 Bohn, Herman, 906 N. 80th St.
 Boothroyd, S. L., 1402 E. 75th St.
 Boothroyd, Mrs. S. L., 1402 E. 75th St.
 Bowman, J. N., 2103 E. 52nd St.
 Bowman, Mrs. J. N., 2103 E. 52nd St.
 Brackett, Bertha, 2005 Broadway N.
 Braden, Ruth H., 2009 L. C. Smith Bldg.
 Bremerman, G. F., 5834 Woodlawn Ave.
 Bremerman, Mrs. Lola A., 5834 Woodlawn Ave.
 Bryant, Mrs. Grace, 1703 12th Ave.
 Bryant, S. V., Broadway High School
 Buckley, Chas. H., 6226 27th Ave. N. E.
 Burr, Mrs. Arthur S., 1106 Lakeview Blvd.
 Bushnell, H. L., 424 New York Blk.
 Butler, Helen, 1712 Summit Ave.
 Caldwell, Hugh M., 402 Burke Bldg.
 Calhoun, Annie H., 915 First Ave. N.
 Canfield, Herbert H., 606 Green Bldg.
 Canton, Gerard T., 1717 Belmont Ave.
 Carkeek, Vivian M., 1164 Empire Bldg.
 Chalk, Vara E., 805 20th Ave. S.
 Chapman, Effie L., Public Library.
 Chestnut, Ross E., 90 University St.
 Chittick, V. L. O., 4727 Brooklyn Ave.
 Chittick, Mrs. V. L. O., 4727 Brooklyn Ave.
 Christopher, Mrs. C. A., 3731 Meridian Ave.
 Clark, DeWitt A., 1104 Am. Bk. Bldg.
 Clark, I. M., 900 Leary Bldg.
 Clark, Leland J., 900 Leary Bldg.
 Cole, Louretta C., 7743 Corliss Ave.
 Coleman, Linda M., 1729 Boylston Ave.
 Collins, W. G., 510 32nd Ave. S.
 Collins, Mrs. W. G., 510 32nd Ave. S.
 Copeland, May, 7102 Sylvan Way.
 Corbet, D., 618 Mutual Life Bldg.
 Corey, C. R., 5800 15th Ave. N. E.
 Cottrell, Florence, 1812 12th Ave.
 Coursen, Edgar E., 658 Lovejoy St., Portland, Ore.
 Cox, Edward G., 4213½ 14th Ave. N. E.
 Cox, Grace E., 5619 12th Ave. N. E.
 Cox, Mabel J., 4213½ 14th Ave. N. E.
 Craven, Inez H., 4719 15th Ave. N. E.
 Crawford, Clayton, 1528 3rd Ave.
 Criswell, Helen, 920 White Bldg.
 Crittenden, Mrs. Max D., 1200 Harvard Ave.
 Cross, Minnie B., 1607 14th Ave.
 Cruse, A. H., Assembly Hotel.
 Culmer, Myrtle A., Annapolis Apts.
 Curtis, Beth M., Downs Blk.
 Curtis, Leslie F., 6309 12th Ave. N. E.
 Curtis, Mrs. Leslie F., 6309 12th Ave. N. E.
 Cutter, Mary H., 1106 E. Denny Way
 Dabney, F., 1530 15th Ave.
 Daniels, Rose L., 6903 46th Ave. S.
 Davidson, C. F., 509 Am. Bk. Bldg.
 Davis, Fidella G., City Engineer's Office
 Davis, Mrs. Ralph W., Amon Apts., 7th and Marion.
 Dayton, Clara A., 1606 N. 54th St.
 Deckmann, Augusta Minnie, 1716 39th Ave.

- Densmore, H. B., 4311 Brooklyn Ave.
 Depue, Charles F., Jr., 513 Denny Bldg.
 Depue, Earl B., 914 13th Ave.
 Derry, Faye G., 1420 8th Ave.
 De Walt, Glenn, 4131 11th Ave. N. E.
 Dickerson, Elizabeth, 619 13th Ave. N.
 Dimmitt, Benlah, 2914 14th Ave. S.
 Downs, M. Ross, Hoge Bldg.
 Dubuar, P. S., 909 35th Ave.
 Dunmore, Blanche, 1532 W. 61st St.
 Eames, Alta Drew, 232 Belmont Ave. N.
 Eckelman, E. O., 3442 Cascade View Drive.
 Egan, Dorothy, Anacortes, Wash.
 Eggersgluess, Mrs. E., Anchorage, Alaska.
 Ellert, W. H., 918 N. 40th St.
 Emerson, G. D., 15 Beacon St., Boston, Mass.
 Engeland, Nellie, 2011 2nd Ave.
 Entz, Ruby W., 5631 15th Ave. N. E.
 Epler, W. F., 333 1st Ave. W.
 Epler, Mrs. W. F., 333 1st Ave. W.
 Everett, Frances S., 4731 University Blvd.
 Farrer, P. M., Seward, Alaska.
 Firmin, Kate M., 203 W. Comstock St.
 Folsle, Omer, Seattle Grocery Co.
 Foley, Sarah B., 606 Green Bldg.
 Forster, Geo. F., 1708 45th Ave. S. W.
 Forsyth, Mrs. C. E., Golden, Ore.
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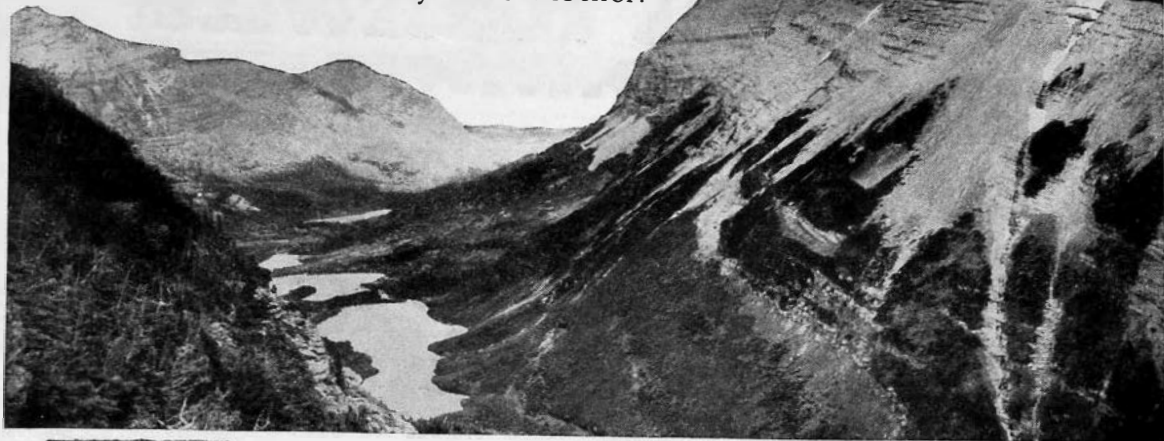
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