OLYM-0355

OLYMPIC NATIONAL PARK

The Friendly Mountain

A STORY OF THE OLYMPICS

Webster



THE FRIENDLY MOUNTAIN

Copyright December, 1921
By E. B. Webster

Gray Flags of the Hills

Edmond S. Meany

Olympics, Olympics, moist home of the mists,
How sure do thy signals, thy flags on the hills,
Call troops of cloud soldiers through tortuous
twists
To plunge where a trumpet each cataract
thrills.

Each cataract thrills,
Thy thousand new rills,
Wild trumpets of rivers,—
Gray flags of the hills!

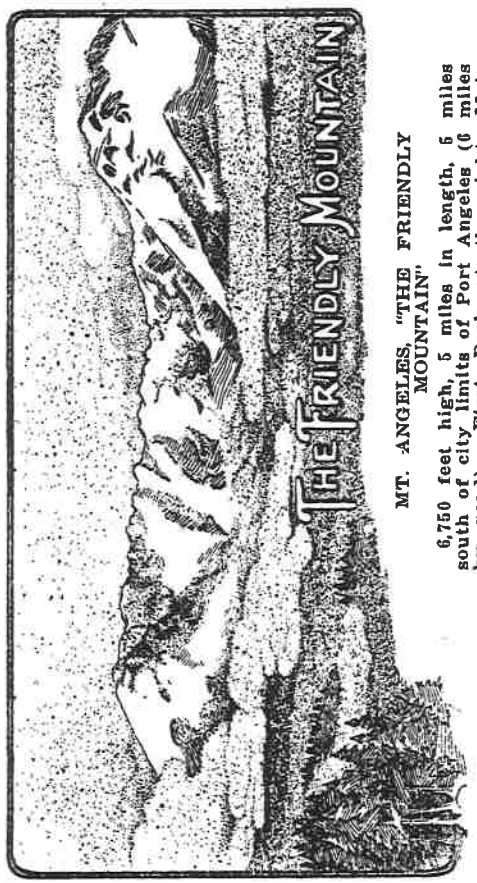
Olympics, Olympics, thy fortress of fir,
Thy cavernous hemlocks where world clamor
stills,
Where never an elk hears the arrow's weird
whirr,
A wilderness peace till the fierce cougar kills.

The fierce cougar kills,
His blood lust fulfills,
Thy shroud for the timid,—
Gray flags of the hills!

Olympics, Olympics, thy swift waters run
To grind the huge boulders in rough granite
mills,
A smile at the labor, a kiss from the sun,
They dance as they whirl their rude hammers
and drills.

Rude hammers or drills,
As glad worker wills;
Thy rivers are laughing,—
Gray flags of the hills!

Dedicated to
The Klahhane Club
4 July 1916



MT. ANGELES, "THE FRIENDLY MOUNTAIN"

6,750 feet high, 5 miles in length, 5 miles south of city limits of Port Angeles (6 miles by road). First Peak at the right, Main Ridge, and Klahhane Peak at the left. Lake Angeles lies at timber-line, center of Main

The Friendly Mountain

BY

E. B. WEBSTER

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ILLUSTRATOR

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To Those Kindred Spirits

Who enjoy the upward trail, "towards the peaks, towards the stars, and towards the Great Silence":

Greeting!

Mt. Angeles--Its Comparative Size

IN Mt. Angeles, an immense and exceedingly rugged pile of rock, over a mile in height, and six miles in length by three in breadth, the people of Port Angeles have right at their door that which will one day prove to be their greatest scenic resource.

We citizens of Port Angeles are overfamiliar with the saw-toothed skyline of our mountain. Only five miles in an air line from the city, it is as near at hand as the high board fence at the back door. Familiarity breeds, if not contempt, at least indifference. Owing to its proximity to salt water it carries no great cap of snow and ice as do the 8,000 to 10,000-foot Cascades, or the 8,000-foot Main Divide of the Olympics. And yet, when we compare our mountain with others, it holds its own fairly well. Let us illustrate:

Could we set the tops — the portion which rises above the surrounding plain — of the



Green or White Mountains, or the Ozarks, down just back of the foothills which lie between Mt. Angeles and town, the summits of those noted eastern ranges would be lost to view. Could we slice off one of the Rocky Mountains, say Pike's Peak, at the level of the surrounding plain, so that we would have only that portion of its 14,000-foot elevation that is visible, and set it down across the Elwha river from Mt. Angeles, it would be simply a continuation of our coast range, no higher, and no more rugged.

The elevation of Elwha Basin, the grassy park at the head of that river, where one must camp if one is to climb Mt. Queets or Mt. Meany, two of the "higher Olympics," is 3,300 feet. Meany, the Matterhorn of the Olympics, and Queets, a great snow dome, are about 4,500 feet above the Basin, and Mt. Olympus, highest of the Olympics, standing over the Divide to the west, is 500 feet higher. OUR Mountain, our "friendly mountain," for these higher Olympics are also

part of our heritage, is over one and a sixth miles high — over a thousand feet higher, as seen from town, than is Mt. Meany from Elwha Basin.

Mt. Baker, the one volcanic peak visible from Port Angeles, is something like fifty miles from salt water. Were we to view Baker from a near-by peak, say five or ten miles away, its crown would appear to be a thousand feet lower than Our Mountain appears to us.

Even that huge volcanic pile, Mt. Rainier itself, as seen from Paradise Park, has only a thousand feet the edge on Our Mountain, and that thousand feet is perpetual snow — which brings us to the real basis of comparison.

Mt. Angeles, the "Friendly Mountain"

No matter how high or how massive a mountain may be, its snow dome is simply more or less snow and spells one thing only — grandeur. One may climb a snow dome, become chilled to the bone by piercing winds, should the day prove unpropitious, and with face and lips blistered, swollen and cracked, even in spite of grease paint, from the sun shining on the snow on the summit — one may, in fact, present every evidence of having passed through a period of the most extreme discomfort, and yet be-

happy in the pride of accomplishment. Those who like that kind of pleasure, that is the kind of pleasure they like. We can accommodate the stranger with that form of sport in the Olympics, but not on Mt. Angeles, for Our Mountain is a "friendly mountain."

It is a peculiar feature of mountain climbing that, as one ascends, the surrounding country appears to draw nearer. The city of Port Angeles gradually draws nearer until one can pick out the individual buildings, and can almost see the people walking along the streets. The government buildings in Victoria, eighteen miles away, are plainly seen. With a glass one can make out the guns at Fort Worden, near Port Townsend, forty miles distant. The surf breaks along the beach at the mouth of the Elwha, or off the Dungeness spit, plainly visible, though something like ten and twenty miles distant, respectively. One can count every skiff in the salmon fishing fleet off Edis Hook, seven miles distant. Every ship in the strait is plainly visible. The ranches from Port Crescent to Sequim are easily distinguishable. One is amazed to see how large a portion of the country always thought of as timbered is really under cultivation. Beyond lies the vast timbered country of



THIRD PEAK AND THUMB ROCK

"O crag-crowned peak, I hail thee once again!
Once more thy lofty crest breeds fresh surprise.
At rest in hanging garden, flower-warmed glen,
O'er slopes of rock I lift my wistful eyes
And hail thee; O, I hail thee once again!"

—Meany.

western Clallam county, where the forest resembles nothing quite so much as the grass of an eastern prairie. Usually surprise will be expressed that Lake Sutherland should be northwest of the mountain and only a short distance away — a tiny pool deep down between mountain ridges; the north end of Lake Crescent, too, seems scarcely more than a pond, so dwarfed is it by the mountains. The Cascades, snow-covered peaks extending far to the north of Vancouver Island, tip more and more with the curvature of the earth, until those farthest north appear to be, and are, leaning away. In climbing all other peaks, one looks down on a sea of mountains, timber and water; even the mountain ridges have in some way become flattened out, and everything is unfamiliar. Our Mountain is a "friendly mountain;" though we stand on its summit, five miles from town and a mile up in the sky, we feel right at home.

The Peaks of Mt. Angeles

Not all who have climbed M. Angeles know the mountain. The old-time trail up the First Peak makes available, to him who must return to the lower levels



Not mentioning
any names:
Joe Dorr
Ruth Black
Thelma Chambers
Annette Swan

at night, only about one-sixth of the total area, and that one-sixth is in several respects the least interesting.

The First Peak is really only the higher portion of a ridge running up onto the mountain. The First Peak is the porch, the roof of the mountain lies behind. One standing on the First Peak is on top of the mountain, but not on THE top of the mountain. The main ridge of Mt. Angeles may be likened to the capital letter L, the base line extending toward the town. The northernmost end of this base line, being over a mile nearer town than the stem of the L, appears to be higher. So, also, to one standing on North Lincoln street, the flag of our courthouse appears to be higher than the top of the mountain; it is the same proposition. From the summit of the First Peak or ridge one has a truly magnificent view of Mt. FitzHenry and the crest of Mt. Olympus, as well as the lower mountains to the north of these, but of the entire Olympic range he sees very little, possibly not over one-fifth. He has a beautiful view, a magnificent view, but the real grandeur of the Olympics is concealed from him by the higher main ridge of the mountain.

Those of us who are familiar with Mt. Angeles are often asked concerning "that

other peak to the southward." Someone has climbed the old trail to the First Peak. When about midway along this peak, or ridge, he has descended through a narrow cut to the grassy park, a favorite lunching place because of the numerous springs. After lunch he has climbed the steep grass slope to the edge of the rim. Here, facing him across a mighty chasm, a mile away, and very noticeably higher, rises a great peak. He has already "climbed" Mt. Angeles; what, then, is this other mountain beyond? That other mountain is the summit of Mt. Angeles, and he was only half way up, if we reckon distance and elevation by hours of effort. From the point to which he has ascended, he will require another day to reach the summit and return.

On his right is the south end of the First Peak, or ridge, dropping off with extreme abruptness into the valley below, a series of precipices, or rock shelves, and of talus slopes, the whole extending quite down into Little river, three thousand feet below, though the lower two-thirds, being timber-covered, appears to the eye to be a uniform, if steep slope. On his left is the Second Peak, remarkable for its bold contour and its "90 degree" chimneys. But these features of the mountain are overbalanced by



SECOND PEAK

the magnitude of the Third or West Peak, and he fails to note that the pinnacles of the Second Peak, which had seemed to be the real roof of the world as he was climbing up, are dwarfed by still greater pinnacles on the ridge connecting it with Third Peak; that the Second Peak is really rather insignificant, merely two or three rocks set on one of the mountain's ribs.

The difficulty lies mainly in the fact that few persons realize the size, the magnitude, of a mountain. It is said a man never really acquires a proper respect for a mountain until he attempts to move one with a wheelbarrow. And, really, when we consider the years that are required, with thousands of men and thousands of machines in completing some puny little work like

the Culebra Cut, for example, the remark is seen to be most appropriate.

Where Magnitude Dwarfs Distance

A little instance will serve to illustrate the magnitude of a mountain fairly well. A few years ago the writer went up the trail with a friend, a professor of geology. A week later we took a trip up Ennis creek, exceedingly difficult then because of the necessity of forcing our way through the thick brush as well as climbing over the hundreds of logs. Clouds had drifted in; there was a dense fog. At three in the afternoon my friend suggested we cross over to the old trail and return down the mountain. It took some moments to grasp the fact that he was under the impression, inasmuch as we had been climbing since early morning, we must at least have reached the elevation of the park between the First and Second Peaks and that there should be some way of crossing over to the park and the old trail on top of the mountain. We were then in that "Hell's Half Acre" below the Ennis creek canyon and waterfall. He finally took my word for it, that we were nowhere near the place he thought for, and we started to climb up to Lake Angeles — some little climb in itself — intending to



reach the cabin (now Klahhane Lodge) by the lake ridge. When a third of the way up the cliffs, the fog opened for a moment just at the crest of the Second Peak — and it was two thousand feet, if an inch, almost vertically overhead. Accustomed to the magnificent distances of Rainier, he regarded Mt. Angeles as a small mountain, and so it is, but almost every foot of its seven thousand feet is "above ground." The person who fails to take that fact into consideration is likely to acquire serious difficulties in the course of his explorations.

That is one reason, and the most common one, why people occasionally become "lost" in the mountains in the fall of the year. They allow too little time for their return, having underestimated the distance they have travelled, and unfortunately having failed to provide themseles with a "bug" or other light, are caught in the darkness almost or even within calling distance of "home."

I once had a friend who thus became lost on the Lyre river, only a few yards from the shores of Lake Crescent. Until eleven o'clock I waited, lantern ready, to go for him with the boat should he call or fire his rifle. Believing himself to be some distance from the lake, which he reached with-



Heather

in ten minutes in the morning, he did not fire a signal, and so slept by his campfire all night. Two or three years later he, and with him his wife, was lost on the upper slopes of Mt. Hood. Having become separated from their companions in a snowstorm, they knew not which way to go and were soon at the bottom of a precipice. Searching parties found them and brought out their bodies three or four days later. Several times I have had to go out after parties in the early night; they were not lost, but simply though effectually stalled on the mountainside. Thereafter, it is safe to say, they had a better appreciation of mountain distances.



THE SNOW CROSS

Mt. Angeles Had Four Glaciers

ALTHOUGH Mt. Angeles lacks the snowfields and glaciers of Mts. Olympus, Meany, Queets, Anderson and others of the Olympics, having alpine parks instead, it retains all the other features of those "higher" mountains.

It would appear there are two reasons to be assigned for the lack of glaciers on Angeles. The heavy moisture-laden clouds of winter are borne inland on the southwest trades. Being blown up the mountain side and over the snowfields of the Main Divide, they lose by far the greater portion of their moisture through immediate condensation so that the annual snowfall is enormous. Mt. Angeles, lying to the leeward, therefore receives very little snow or rainfall in comparison with the Main Divide, and as stated before its proximity to the salt water so tempers the climate that it carries no snow from year to year.

The summers are very brief at high ele-





LAKE ANGELES

vations on the mountain ranges; also, the warmth of the summer sun is only felt a few hours each day. Even in mid-summer blizzards often rage around the mountain tops. Under such conditions there is always several feet of the previous winter's snow left when summer draws to a close. Each successive summer's snow is compressed harder under the tremendous weight above until it takes on the clear blue of hard glacial ice. Looking down into the crevasses, each year's snowfall is plainly seen in the dark lines between the layers, the result of dust blown over the snowfields.

And right here lies one reason why the glaciers of Olympus are more beautiful than those of Rainier and other volcanic peaks;

having no lava dust, no ashes, our glaciers are practically clean. The only dirt is that which comes from the talus slopes, which are steep tongues of broken rock and soil — the decomposed rock which has split off from the peaks above. Some of these glaciers are two, three, and even four miles in length. Some of them descend well down toward the valleys, as the Blue or Hanging glacier of Olympus which descends to something like 2,300 feet above sea level. Others break off at the edge of gigantic precipices, the blocks of ice melting on the rocks below.

On one occasion when the writer was climbing the mountainside facing Humes' glacier on Olympus, a great block of ice as large as a house split off and fell over five hundred feet to the rocks below, the crash echoing for minutes along the mountain cliffs. Always the glaciers are creaking and groaning as the ice is forced between and over the ragged rocks by the pressure of the enormous ice river. In some instances one may work down into the broken crevasses near the glacier's edge, soon reaching twilight and later on, no doubt, the darkness of night. However, the creaking and groaning presently gets on one's nerves, at least in my case, and the exploration comes to a hurried ending.

But on Mt. Angeles practically all the snow disappears by mid-summer and there is no material left with which to form a glacier. The only exception to this is found on the Third Peak, where a small body of ice is to be seen in September, those years when the snowfall is light, the last remaining remnant of a once mighty glacier that wound its way down into Little river valley.

Mt. Angeles had, at one time in the misty past, three primary glaciers, lying in the Little river, Ennis creek and Lake creek basins. Of these, the Little river glacier was the largest. Heading in between the Second and Third Peaks, and cloven for its entire length by the ridge ending in Thumb Rock, it extended from the rim well down toward the valley. Evidence of its grinding power is to be seen, even after the centuries that have since passed, in the pinnacles of harder rock left standing.

The second largest was doubtless in Ennis creek valley, the large area known as Starvation Flat being the basin for the field of ice, which cascaded over into Ennis creek canyon in a frozen waterfall five hundred feet in height.

A third glacier occupied the present site of Lake Angeles, leaving there a splendid



Ennis Creek Falls

example of the "cirque" or pocket in the mountain's side, the rear wall of which, in this instance, is about twelve hundred feet high.

To understand the formation of a cirque one must remember that the edge of the snow field melts away from the rock each summer, and that the entire mass of ice forming the glacier is constantly moving down the mountain. The rock face is constantly undergoing disintegration, fragments being chipped off by the freezing of moisture which finds its way into every minute crevice. As rains are very frequent in the mountains in spring and fall, and as it freezes practically every night, the process is fairly rapid. At times the dropping of these minute particles of rock sounds like hail, and in fact the dropping of larger fragments is of so frequent occurrence as to make the immediate vicinity of these cliffs very dangerous places. With the coming of winter the space between snow or ice and rock is again filled and the loose rock is frozen in and carried on down beneath the glacier, being ground up and eventually shoved out at the glacier's nose. The larger portion of this detritus is carried off down stream, but in many instances sufficient remains to finally choke up the valley and



White Rhododendron

form a lake. Thus it may be said the glacier eats its way back into the mountainside. The great cliff forming the south wall of Lake Angeles, and the cliffs on the north wall of Third Peak, were created in this manner. Lake Angeles owes its existence to the choking up of the narrow canyon with detritus from the rock walls, sufficient having come down and been retained to make a fair-sized meadow at the lower end of the lake.

There were two other glaciers, of a secondary nature, one between Klahhane Peak and Lake Angeles, leaving a much smaller lake in its basin. The other was nearly circular, filling the basin or park, as we know it today, between the south end of First Peak and Second Peak. Its upper edge was surrounded by a fairly high rim of rock, most of which has crumbled away, now forming a deep talus slope, timber-covered, extending down to Thumb Rock. The grinding action of this glacier is plainly to be noted in the table-like bench below the springs. This Park glacier was not more than one hundred feet in depth, and doubtless broke off at Heather Falls, there being no present evidence of its ever having plowed on down to the Ennis creek valley.

There were no glaciers on the south side

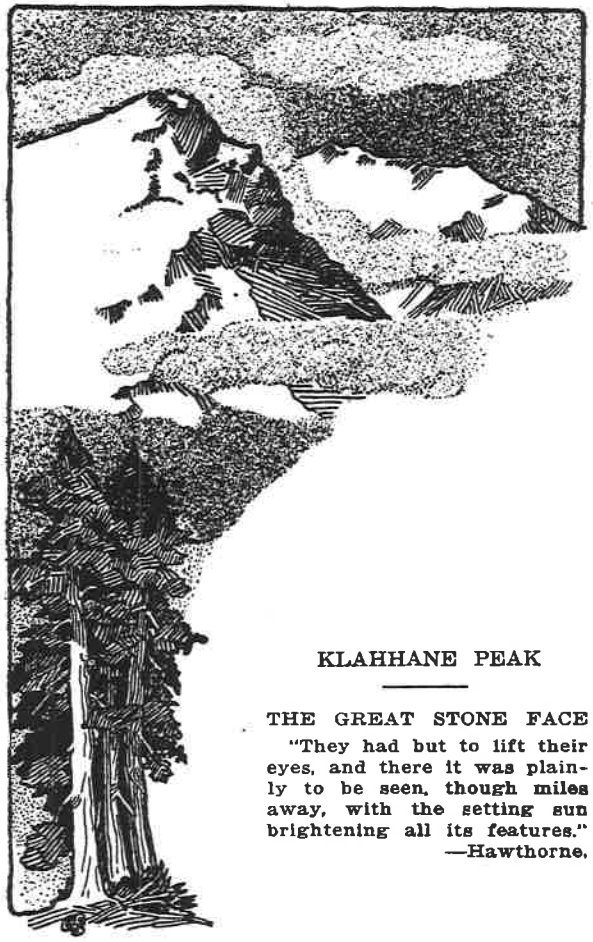


Klahhane Camp
in Park

of the mountain for the reason that the bulk of the snow blows over onto the north side, and also because it is far warmer on the side facing the sun. Consequently, while the higher elevations of the north side are precipitous, the south, for the most part, presents a gently sloping grassy hillside between the comparatively low timberline and a narrow combing of rock.



ISABEL ROCK



KLAHHANE PEAK

THE GREAT STONE FACE

"They had but to lift their eyes, and there it was plainly to be seen, though miles away, with the setting sun brightening all its features."
—Hawthorne.

The Alpine Flower Gardens

ALTHOUGH the glaciers with their beautifully crevassed cascades undoubtedly constitute the greatest attraction of the Olympics — there being a greater glacial area than exists in Glacier National Park — yet Mt. Angeles has its own features of scarcely secondary interest. In fact, the very absence of the glaciers, which once filled the narrow valleys almost rim-full, is responsible for the high-stepped walls of the peaks themselves, Mt. Angeles having more unscalable precipices than any other peak in the Olympics.

Time was when the continent was covered with glacial ice, only the tops of the mountain peaks appearing above the ice-plain. The one-time thickness and extent of this ice cap, so the geologists tell us, is determined by the area covered with granite boulders which were brought down, imbedded in the ice, from the far north. This ice cap, which gouged out Puget Sound and



the strait of Juan de Fuca, filled the Olympic mountain valleys, even to the headwaters of the streams. Elwha Basin is almost a solid mass of boulders, covered, in part, with a thin layer of soil from the disintegration of the ridges above. This ice cap reached about half way up the side of Mt. Angeles; in fact, just below the Half-way Rock the last large boulder is to be seen; beyond that elevation it is impossible to find a piece of granite.

During this long period of time the mountain peaks acquired a flora identical in some respects, similar in others, to that of Alaska and Siberia. Many of our Alpine plants bear Russian names, having been first collected by the early Russian botanists, at Alaskan trading posts.

In the course of time, as the ice receded, there was left on these peaks three distinct zones of plants. The true alpine flowers, acclimated at an elevation of 7,000 feet, but not to be found much below that elevation; another zone, between six and seven thousand, of plants less depauperated; and another, between four and six thousand, of sub-alpine plants. In all the many thousands of years that have passed since that time, these alpine plants have not become acclimated below their zones; neither have



Headed for Safety

the sub-alpine plants been able to exist above their level.

On the high mountains, where the only soil surface is that to be found in tiny crevices in the rock pinnacles, a hundred feet high or thereabout, alpine flowers are necessarily very limited, both in number and in species. In this strictly alpine region, the rock crests of the mountain ridges, we find bluebells, in themselves an inch across, borne by plants scarcely half an inch in height; so also there are pinks, primroses, and many others, the plants apparently little more than thin patches of moss, yet covered with flowers, disproportionately large and of intense hues.

On Mt. Angeles, where the usual fields of snow and ice are absent, their place being taken by the alpine parks, there are meadows, watered by tiny streams, dotted with clumps of dwarfed alpine fir and Alaska cedar, and covered with short grass in which are growing thousands upon thousands of flowers. One may easily pick over twenty-five species in a spot less than ten yards across, or over a hundred species in a walk of a thousand feet. Again, below these alpine parks, are the sub-alpine parks, at the head of the branches of Morse creek and Little River — meadows at an eleva-

tion of 4,000 feet where the grass grows knee-high. Swampy in character, these have a flora all their own — lusty plants of many blossoms, red and orange and blue, all the colors of the rainbow.

It was of these alpine and sub-alpine parks that Prof. J. B. Flett, dean of botanists of the state, spoke when he said he had never seen such a floral collecting ground as Mt. Angeles. After twenty years in this state, the successive summers of which had been spent in botanical work in the various mountain regions and in Alaska, Professor Flett had become so familiar with the flora that he was wont to say the finding of one new species (not an undescribed species, but one he had never before had the pleasure of collecting) was ample reward for a day's hard work among the crags of a mountain. Yet Mt. Angeles, those days when we climbed high on her slopes and climbed over her precipitous rocks, was never so niggardly as to limit the find to one and only one species.

But the real flower fields — not as regards the number nor the rarity of individual species, but in respect to the multitudes of flowers of comparatively few kinds — are the grass ridges and southern mountain slopes. These run from Mt. Constance o



Snowshoe Rabbit

Hood Canal to Hurricane Hill on the Elwha, and beyond to Crystal, Happy Lake and the other ridges, nearly sixty miles of grass ridges — the Paradise Park country of the Olympics.

For the most part too low for the white heather and the host of alpine plants, as well as being too high for those of the sub-alpine meadows, their flora is limited to great fields of red heather, of blue lupines, of painted cups, bunch flowers, white cowslips, avalanche lilies both white and yellow, blue gentian, elk or basket grass, and others similar. In the thousands of acres of this park-like country the Olympics have as extensive floral fields as are to be found on the slopes of Rainier or any other mountain.

And the beauty of the Mt. Angeles country, over that which is covered with snow and ice, lies in the fact that here one may camp, not on a bench on the side of the mountain, like Paradise Park, not deep down in a sub-alpine valley, like the Elwha Basin, but way up in the High Places — between the peaks, in a true alpine garden. No other place in the whole of the Northwest, unless it may be Mt. Constance, presents an equal opportunity.

To reach the summit of a snow-clad

mountain is a matter of some considerable effort, to say the least, and after spending an hour or so on the top one must return to the valley to camp. One cannot see the sun set because he is away down in the valley; one cannot see the moon rise, for he is virtually at the bottom of a well; one can see little save the timber and rocks of the ridges immediately about unless he daily undertakes the climb up those rock ridges to the summit. One is not in an alpine country, but betwixt and between.

On Angeles one may see the sun sink into the Pacific, beyond Tatoosh Island, while its last rays tint with gold and rose and purple the hundreds of snow peaks in the Olympics and Cascades. One may see the moon rise, should he be so fortunate as to be on the mountain when that orb is in its full glory, flooding every peak and rock and tree with its silvery light, and be brought to realize then, as never before, the full import of what it is to FEEL the majesty, the nobility, the strength of the hills.



Mountain Beaver

Northern Slopes Almost Impenetrable

SOME thirty years ago, when the timbered country along the strait was being taken up by homesteaders, each of whom was required to build a cabin and slash and burn a clearing, forest fires were the rule rather than the exception, few localities indeed escaping the blackening torch. In some sections the fire simply ran along the ground, cleaning up the dead refuse, killing a few trees, and charring the base of others. In other localities, where the forest growth was dense, or where, on mountain slopes, it had attained extreme dryness, practically every tree was killed, the forest becoming a cemetery of dead and blackened stubs.

During this time, the pioneers say, Mt. Angeles was twice burned over, its firey slopes presenting a wonderful sight when freshening wind cleared away the pall of smoke. Aside from the timber in Morse creek valley, and the smaller areas in the

valleys of Ennis creek and Little river, only a few tiny patches of the original forest remained and, for two or three years thereafter, one could ride a pony up the mountain slopes without any regard to or necessity for trails. Gradually the charred trees, through the action of rain and frost, became white, their surfaces chiseled as finely as though by the delicate touch of the engraver; winter winds, always gusty in their nature, leveled a few here and there, until not more than one per cent were left standing.

Within three or four years, all the lower slopes were reseeded, a new forest many times more dense than before, growing up between the criss-crossed logs. The age of this new dress is from 20 to 25 years, being easily ascertained by counting the rings of limbs on average trees. The higher slopes being, for the most part, above such seed-bearing trees as escaped from the fires, have reseeded slowly or not at all, the mountainside being covered with an interlacing maze of whitened toothpicks. Above these, again, are tiny groves of stunted alpine trees, or here and there a solitary ghost tree, as they are most appropriately named.

The result has been to make the northern

slopes of the mountain almost impenetrable. With the exception of the old-time trail up to the First Peak, there are no trails and the most interesting features of the mountain, such as Lake Angeles, the snow fields of Ennis creek, the Third Peak, and so forth, are closed books to all except the most enthusiastic and tireless, nine-tenths of the mountain being terra incognita.

The southern slopes of the mountain, covered, for the most part, with open timber and grass, are easily reached via the new Forest Service trail up Morse creek, taking the place of the old-time Cox trail which made such surprising elevations only to drop down again and again, or by the Little river trail, more recently built. This southern side may also be reached by means of the game trails along the grass ridges, either from the east or by the Hurricane Hill trails up from the Elwha. Such trips, however, require long hikes.

The greatest need of those who enjoy a day or two in the mountains is a well-cleared trail up Ennis creek, making a thoroughfare from the end of the Mt. Angeles road at Klahhane Lodge to the center of the Divide between the sources of Ennis and Morse creeks. As a temporary expedient, the Klahhane club has brushed out a mile

or more of trail extending from their lodge to the Ennis creek canyon; but the hundreds of logs lying on the mountainside, some of them seven and eight feet above the ground, make it a tiresome trip, not often to be undertaken. However, the trail is frequently used and has proven its worth many times over.



HEPBURN'S LEUCOSTICTE
Or Rosy Finch, 'Patron Saint of the mountaineers.
Lives and nests on the highest peaks.

Features of Special Interest--The Lake

OF THOSE features of more especial interest on Our Mountain, doubtless Lake Angeles holds first place. By reason of its elevation, 4,500 feet, it is clearly entitled to be classed as a real mountain lake, and of all the mountain lakes of the Olympics, similarly located, it is easily the largest. Though it appears small, due to the height of the surrounding cliffs, as well as of the very considerable area of the peak immediately above, in reality it is 2,000 feet or over a third of a mile in length by some 800 feet in width. Its depth has never been measured; at the lower and shallow end, where Lake creek flows out through a tiny meadow, one could easily wade across, but at the upper end one can see great rocks, lying close inshore, where the water must be fully a hundred feet in depth. An island, simply a pinnacle of rock, in the crevices of which are growing a few stunted trees, lies apparently close inshore under

the 1,200 foot wall at the upper end; yet when one walks around the shore line the island is soon seen to be but a short distance from the outlet — such is the deception due to the depth of the canyon. Persons climbing the First Peak of Mt. Angeles frequently ask where Lake Angeles lies. Expecting to see the lake in one of the deep valleys below, they can hardly realize that the elevation of its surrounding walls very closely approximates that of the First Peak itself, and are surprised to find that instead of a sheet of water there is to be seen only a definite blackness at the base of Central Peak, over a mile away. Being thus sheltered on the northern side of the mountain, the lake is frozen over until early summer. Though there may be trout in its black and forbidding depths, no trout are to be seen along the shoreline. The further fact that there are literally thousands of a sort of grayish-black "water lizard" in the shallow portion of the lake, would seem to indicate the absence of fish.

Seven waterfalls, five of them tiny threads as seen from the northern end of the lake, which one reaches first when climbing up Ennis creek ridge, add to the interest of the place.

One of these plunges down some 500 feet



Webster's Cliff

and another is found, when one encircles the lake, to be of very fair size; four or five of these falls last only so long as the field of snow remains on the peak above.

Pinnacles and Chimneys.

The Second Peak, a comparatively short ridge consisting of three main pinnacles, is the most interesting bit of rock to be found on Angeles, or anywhere else in the Olympics that the writer has been. To understand the formation of these pinnacles one must first realize that the rock composing them, now standing at an angle of almost ninety degrees, was laid down in layers by streams flowing into the ancient seas. For a long space of time one kind of ground up rock was deposited over a large area, and then another kind of a different degree of hardness. How long a time was required to

build up the layers of rock included in Mt. Angeles only a geologist can estimate, and he but roughly, but this we know: Time is the most abundant, the most unlimited thing — in eternity. In the course of time, comparatively recent as the formation of mountains goes, there was a shrinkage, a settling and crumpling, during which the strata was turned on edge. The tremendous force thus exerted caused sufficient heat to burn the layers of rock, turning them, for the most part, a dark brown. There is absolutely no evidence of volcanic action in the Olympics. Some idea of the thickness of the surface of the earth that was here laid down by water may be had from the fact that over three horizontal miles, from north to south, of the crest of the mountain were at one time three vertical miles of the earth's surface.

The softer layers of rock have gradually crumbled away, partly through the action of glaciers, but more largely as a result of the combined action of rain and frost. Thus there have been left standing only the harder layers, the pinnacles of the present day. Even in these the narrow strips of softer rock, a foot, or two or three feet in width, have crumbled, leaving chimneys up which the venturesome climber may, with some little difficulty, reach the summit. There



Shooting Star

are three or four of these chimneys affording access to the more southerly and highest of these pinnacles and many who climb the mountain thus make the highest point of the Second Peak — not all, however, for frequently some one of the party will lose his, or possibly her, nerve, when those lower down in the chimney must of necessity return to the base of the pinnacle.

'Tis often said that fools rush in where angels fear to tread; in other words, those lacking in experience will often take chances about which the expert will hesitate and even turn down. A friend, Dr. Eaton-King, member of the mountaineering clubs of San Francisco, Portland and Seattle, who has herself made the ascent of many of the principal volcanic peaks of the coast, who will jump over crevasses without the slightest hesitation and whom the writer has seen cross snow bridges not more than six inches in thickness, hesitated midway up one of the Mt. Angeles chimneys, saying it was the most dangerous place she had even gotten into; nor would she change her opinion after reaching the top.

At another time Professor Flett refused point blank to continue up the last fifty feet of a chimney on the south side of the Third Peak. He had completed the week before a



Scotch Bluebells

seven day trip around Mt. Rainier just below snow line. In other words, he had crossed a glacier, climbed up one side of a gigantic cleaver, down the opposite side, crossed another glacier, and so on for over fifty miles, carrying his hotel with him through a trailless country. We made three ascents, or three attempts, before reaching the summit on that side. On the first, Prof. Flett, considerably in advance, slid down again, saying he found the way barred by the "worst hell-hole he had ever looked into." The second time we nearly reached the top, getting to a point where it seemed more dangerous to go on than to return, when Flett, whose shoe calks had become badly worn from his trip on Rainier, refused to go further. A third ascent, up another chimney still farther to the west, proved very easy.

But to return to the Second Peak. Having made the climb up the main chimney, where there are neither hand nor footholds upon which the least reliance may be placed and where the climber must hug the rocks with "all fours" braced against the side walls, he comes to a narrow knife-like ridge of smooth rock, so narrow for a short distance that strong men will sometimes crawl over much as they might cross a deep



Flying Squirrel

canyon on a 12-inch log. Jutting out to the side of this ridge stands a tiny point of rock about twelve feet high, or possibly it might be better described as a double pointed rock. He who climbs the smooth surface to stand on the top, where there is hardly room for one pair of feet, and where he has nothing below save the smooth overhanging rock, in all respects similar to the side of a four-story stone building, may be said to have reached the summit of the Second Peak.

Another peculiar feature in connection with these pinnacles is the fact that when looking down one does not see the shelf of rock, or even the ridge, directly below, but instead looks off to the bottom of the valley some little distance away. Instead of a drop of a hundred feet, he sees one of a thousand or more feet. Sitting on the edge of the summit of the Second Peak, which has about the area of a fair-sized office room and is therefore perfectly safe, and looking down inside of one's crooked arm, one will see the bottom about five hundred feet below on the northern side, and fully a thousand feet beneath on the southern; often there have been women in the little parties who became so unnerved they could not keep back the tears and asked to be taken down the easiest way at once.



Eucephalus paucicapitatus

Usually the climber continues on to the east and down a particularly smooth and steep crack in the rocks, a place that could and should be made safe by means of a wire cable. The summit of this pinnacle may be easily reached, should one not care to undertake stunt climbing, by means of chimneys on either the north or south sides, rather than in the ends.

North of this larger pinnacle stand two others, the first tower-like, perfectly smooth as to its vertical surfaces and crown, and cleft in twain by a very narrow chimney. The summit of this pinnacle has been reached on two occasions by Miss Mae Webster, and, insofar as the writer knows, by her alone. Others, sizing it up, have wondered how it was done; however, like Columbus's trick of standing an egg upon end, it is perfectly simple once one knows how. There are tricks in the trade of the mountain climbing enthusiast the same as in all others — save that of the carpenter, and he drives screws with a hammer.



VIEW NORTHEAST FROM HALF-WAY ROCK

Webster's Cliff and Club Flower

Extending down towards the park from this pinnacle is a talus slope, ending, as such slopes usually do, in a bunch of large rocks that have broken off the cliffs above. Until mid-July this slope is covered with a thick blanket of snow, reaching well up onto the rocks. In the talus underneath this blanket there there grow a number of rare plants, of which Heuchera racemosa. Arnica cordifolia and Senecio websteri are most noticeable. These same species are to be found on other parts of the mountain, always under snow till late in the season. Botanists visiting Mt. Angeles have come down from the university or the collelges soon after the close of the school year, at a time when none of these plants is to be seen. Thus it remained for the writer to collect the first specimens of the senecio, which were examined by our state botanists, sent on to Prof. C. V. Piper at Washington, D. C., and by him referred to Prof. J. M. Greenman, then of the Northwestern University, and the highest authority on this branch of the aster family. Dr. Greenman's description of the plant is not altogether intelligible to the writer, whose early education was sadly neglected, but he is familiar with the specific name then and there given. The plant has



Chickadee

thick, fleshy leaves four to six inches in length, and is not over six inches high, thus making a fairly large, though low, plant. The blossoms, which grow at the end of four inch stems, might be described as an abridged edition of the sunflower, having lemon yellow petals and a center an inch across. It was long thought to be limited to Mt. Angeles, and has been adopted as club flower by the Klahhane mountaineers. (In 1920 a number of the plants were found at the headwaters of the Dosewallips, on Mt. Claywood, and possibly it will yet be found in other localities in the Olympics.) The first dozen plants to be collected were growing out from under the edge of the central tower-like pinnacle, in a few feet of talus then exposed between rock and snow, by reason of which Rev. R. W. Raymond of Portland, on a visit in 1909, duly dedicated the pinnacle as Webster's Cliff. Unfortunately, being a small rock, in comparison with the main pinnacle of Second Peak, one requires an experienced guide in order to find it.

The Danger of Falling Rocks

While the chimneys of the pinnacles are interesting because of being almost vertical, as well as affording the only means of reaching the crest of the rocks, they are insig-



Alfa's First Pockets

nificant when compared with those of the peaks themselves. Of these there are five main "vertical canyons," and possibly three hundred others having a length of from fifty to a thousand feet. The great canyon between Central and East Peaks; the chimney extending down to the Burn on the north end of First Peak; that running down from the Divide at the head of Ennis creek to the big spring which gushes out the mountainside, the source of the most westerly branch of Morse creek; the chimney which gives access to the Third Peak from the southwest, and the two-thousand foot chimney from the main pinnacle of Second Peak to the floor of Ennis creek valley above the canyon, may be given as the five.

The writer was one of a party of five who went down the last named chimney in 1914, it being the intention to ascend Ennis creek valley and, crossing the Divide, return to town via Cox's ranch and trail. The trip had been postponed on account of dense smoke from forest fires, one of which burned the entire length of the foothill between the mountain and town, making a beautiful sight as we camped high up on the mountain. Unfortunately, however, the fine weather we had been having for some weeks was scheduled to terminate that night



Blue Grouse on Second Peak

with the arrival of a dense bank of clouds from the ocean, of which fact we were not advised until we reached the summit that evening and saw the fog on the strait.

By three o'clock the clouds were rolling up the mountain, necessitating a fire and the toasting of one side and then the other in an effort at keeping warm. By morning there was an inch of hail on the ground; the hot cakes resembled a cratered battlefield, while cloud masses whirling past the rocks effectually shut off the view. Under such circumstances it was impossible to size up the chimneys running down from Second Peak ridge, and of course it was just in line with our luck to pick the most rugged and the longest. Every few yards down we came to an almost vertical slide and in places to little precipices where it was necessary to lower ourselves down ten or twelve feet of overhanging rock. After getting down some three hundred feet we realized we were up against it, but being unable to figure out any way of getting back there was no choice but to go on. The two thousand feet took us from seven till twelve o'clock, and we didn't loiter overly much on the way at that, especially after the gods of Mt. Angeles began their game of bowling, with our party as the nine pins.



Sound Asleep in Starvation Flat

One seldom spends a day on the mountain, if he gets beyond the First Peak, without hearing several rocks go crashing down into the timber. The valleys are filled with great boulders, if anything in the rock line save granite may be so termed; there are millions of smaller rocks, mostly fragments, on the lower slopes, while up above the chimneys and slopes are practically free. A favorite pastime of climbers is that of prying loose great rocks, many of which require only a touch, when they go bounding down, striking on other rocks or against trees, usually splitting into pieces before finding a resting place a half mile below.

When half way down the chimney, just as we had reached a little pocket or bench, onto which the first two boys stepped, there was a loud crack above and the air almost directly overhead seemed to be filled with a cloud of rock, the largest being easily as large as a piano or an office desk. Three of us were still in the narrow crack of the chimney, having just climbed over a big rock lodged therein; 'twas the work of a moment for two of us to crowd under the lower edge while the third doubled over. With a great crash the falling rock struck the one we were under, breaking into a



Heather Park Trail

hundred pieces which rattled on down the chimney; even the third man, exposed as he was, was uninjured, the one rock striking him happening to hit the center of his pack. If it be true that a man born to be hung will never drown, there is at least one ever present danger among the rocks that holds no menace for us. I have often wondered since then, how many seconds it took that rock to fall. While swimming in a millpond, many years ago, I was taken with cramps in both legs; by the time my fingers were able to clutch the gravelly bank I was all in; I doubt if I could have swam another stroke; it was quite some time before I was able to pull myself up onto the bank. Those last few feet of failing strength seemed an eternity, and so also that big rock, directly overhead, seemed to fall like thistle down on an upward breeze. Such experiences breed caution in the hills.

Avalanches

Avalanches are of two kinds, snow and rock; neither are unknown on Mt. Angeles. In places great roadways are cleaned out absolutely free of trees; in others enormous quantities of broken logs and rough-surfaced rock have literally torn up the mountainside. Snow avalanches occur above timberline, where the mountainsides are



Hermit Thrush

steep, after a winter of unusually heavy snow fall. Here snow cornices, formed by snow drifting up and over from the southern side, become very large and of great weight. One on the crest of Hurricane Hill tops a wall of snow two or three hundred feet in height, the overhang being sufficient to cast a shadow which is plainly to be seen from town although the distance is about eight miles. On these very steep and smooth slopes the jar of a breaking cornice is often sufficient to start a slide which goes plunging down into the timber below. Smaller trees are uprooted, logs are snapped in two and tossed into the air, loose rock is carried on beneath the great weight, until the whole mass comes to a halt in heavy timber or among the rocks at the bottom of the valley. Such slides are very common back on the Main Divide; one from Mt. Queets, doubtless an annual slide, makes a great mountain on the Snow-finger, or upper Elwha glacier. Another from Mt. Meany, filled Elwha Basin in 1916, the snow being seven feet in depth as late as the first of July, when the Klahhane club reached the Basin on its annual outing. Trees had been torn out and debris was scattered everywhere over the snow. In 1919 a slide of this character filled En-

nis creek canyon, below the waterfall, the frozen mass of snow and broken logs remaining all summer.

But most of the Mt. Angeles avalanches have been rock slides, caused, doubtless, by the heavy accumulation of talus on steep, smooth rock slopes. Such slides would occur on any given slope only once in centuries; when they go they sweep their mountainside pathway clean nearly, if not quite, to the bottom of the valley. It takes many, many years for sufficient soil to again accumulate on these slopes to support plant life, and many more years for trees, which finally take root in the heather and grass, to attain any size. Consequently all these slides stand out plainly in the winter months as ribbons of snow extending down from the crest of the ridges; a notable example is that below Gopher Rock on First Peak.

Speaking of avalanches, Mr. Beaumont, a former old resident well known to all who travelled the Mt. Angeles road, used to take great pleasure in pointing out an immense rock which he insisted was brought down in a slide, just as he was returning from a trip to the mountain, so that he was an eye-witness. It is but necessary to add that a twelve inch fir is growing out of the top of the rock to get the proper appreciation



A Perfectly Capable Mountaineer

of his enjoyment when he could put the story over on the unobservant.

Our Underground River

An underground river in the Olympics, most precipitous of mountain ranges, where the streams are mostly glacier-born, cataracts that plunge down hundreds and thousands of cascades, swirl in elongated whirlpools through dozens of canyons, finally issuing forth onto the lowlands in continuous white water — an underground river in the Olympics is about the last thing one would dream of encountering. Yet this must be included among the features of Mt. Angeles.

Taking the new Klahhane trail for the falls, crossing the "spring," as the west fork of Ennis creek near the lodge has long been known, and continuing on up and over the ridge one soon hears quite plainly the music of Ennis creek itself, possible five hundred feet below the trail. For the distance of a mile or more the sound grows more pronounced, as stream and trail approach each other; one becomes accustomed to the singing of the water until he no longer realizes there is a stream below, when suddenly the silence becomes distinctly audible. The floor of the valley is possibly not more than two hundred feet below, and one wonders why it is he has suddenly acquired the im-



Timberline

pression of being alone on the mountainside.

Two or three tiny streams are crossed before one hears the roar of Heather Park stream which has its source in a number of springs up between the peaks. If it be in spring or midsummer, before the snow fields have entirely disappeared, care must be used in selecting a place of crossing, for it is not a stream, nor is it a series of cascades and pools; it has no bed, but plunges over and through a mass of boulders. Yet as a surface stream it never reaches the bed of Ennis creek, a hundred feet below. A trifle farther on another stream, or rather falls, is to be seen, and still further, away up on the mountainside, yet almost overhead, a third waterfall. This last, being a broad sheet of water covering the face of a vertical cliff, might well be named the bridal veil. Apparently neither of these, nor another on the left side of the canyon, reach the main stream; they simply plunge over and disappear from view.

Ennis creek itself, after rushing headlong down several hundred feet in a succession of falls, swirling through a big patch of devil's club, finally slows up on the level between great moss and vine-covered rocks, and within only a few hundred feet



Crossbill

of the canyon walls loses itself in a tangled mass of salmonberry vines, only to reappear, full grown and lusty, from under a rock at the beginning of the cascades down in the valley.

A. E. Cox, Pioneer

No story of Mt. Angeles, however extended as to detail, could be considered complete were not some mention made of A. E. Cox, the only man whose name has become permanently associated therewith.

Mr. Cox came west in the early nineties, locating and remaining in Seattle until times "got so hard," as he was wont to say, that he "could no longer get an old dollar for a new one." Then, though well along in years, he concluded to follow the custom of the day and put in his time as a homesteader until the country had recovered from the panic of 1903. Arriving in Port Angeles after all desirable timber claims had been taken up and hearing of the grass parks on the south side of Mt. Angeles, he took the old "government trail," which could then be followed fairly well, to the head of Ennis creek. There, directly below and within a half hour's walk, lay the large park at the head of the west branch of Morse creek, while just over a low ridge was another opening, circular, level, and

watered by a tiny stream — an ideal pasture in the midst of the forest. Beyond this yet another and larger and more beautiful park stretched away to the head of another tiny fork of the creek. Above these were the short-grass ridges giving access to the thousands of acres of grass land east and west.

Having come from a stock country and being himself a lover of fine stock, the possibilities impressed him. But the basin at the head of Ennis creek was filled with snow for the greater part of the year; a trail, other than that then existing, would be a necessity. Accordingly Mr. Cox returned to Seattle to enlist the aid of two or three friends. They came down, got the necessary camping equipment and hit the trail for the top of the divide. Naturally they were tired, after having made the climb of some six thousand feet, and disgusted as well, but Cox pointed out to them the fact that, inasmuch as they had merely to slide down to camp, their troubles were all but over. Seating himself in his frying pan, suiting the action to the word, he cast off; there was a scraping sound, a noise as of splitting air — and Cox was in camp. He afterward confided to the writer that he was the most astonished man in the

party, for he had an idea he could dig his heels into the snow and stop whenever he wanted to.

Eventually Cox took the circular park, a friend by the name of Wells filing on the larger opening. Building a log cabin and large shake barn, Cox proceeded to put in a patch of potatoes and fill his barn with some ten tons of hay; the season being favorable, he secured a fine crop of the former, while the hay, for several years thereafter, was eaten by cattle and horses in preference to new grass. In the fall he employed an assistant and put in a trail down Morse creek — or perhaps one might more properly say "up," for that trail climbed to greater heights and more of them than any other ever built in the county. The Cox ranch and Cox trail will always be known as features of the Mt. Angeles country, and though Mr. Cox made no particular use of either, save occasionally while county game warden, they have proved of great convenience and value to the ranchers, who drive in cattle, and to sportsmen and campers who enjoy a few days in the High Places.

In Mr. Cox's death, which occurred a few years ago, the writer lost a true friend who has never been replaced.



A THOUSAND-YEAR-OLD FIR

Height 8 feet; trunk 18 inches in diameter, shows no evidence of ever having been broken off.
(Drawn from photograph.)

Trees of the Timber-Line

THERE is so much to be seen from a mountain ridge; the view, whichever way one may turn, is so wonderful; the immediate pinnacles and cliffs are so impressive, and the flowers so beautiful, that one fails, in two or three trips, to get anything more than a general idea of the mountain and the scenery beyond. Not until one has made several visits, does he begin to note the really interesting things which Nature has strewn all along his pathway. This is particularly noticeable in regard to the flowers. Even one who is interested in flowers, who takes pleasure in having a fine flower garden at home, who enthuses over the wonderfully strange and beautiful flowers of the alpine parks, comes down with a very hazy mental picture of this feature of the mountains. He must go through a kindergarten course in observation, as it were, before he becomes really appreciative where all is strange, so different

to that with which he is accustomed. ... *must become familiar with the grandeur ... the scenery before he can turn his attention to the lesser things about him, and before he can become really good company for one who has, as Prof. E. S. Meany says, learned to love the hills.*

One of the most interesting features of the mountain ridges is what is known as "timber line," or, rather, the character of the trees at timber line. Here, where terrific winds sweep, where snow comes early and piles up until it has a tremendous crushing force, where it freezes nearly every night during the short season of growth, all trees are stunted and nearly all misshapen. Their trunks are abnormally thickened, a twisted mass of knots, the wood as dense and hard as the "hard woods" of the eastern states, their basal limbs longer, much longer, than the height of the tree, and their tops mere spikes.

Trees which grow in the shelter of the rock-encircled parks, or behind a pinnacle where they are not buffeted by the prevailing winds, are more normal, though short and stocky; often they make a very respectable dense forest. But those which have to contend with the elements are universally deformed.



LAKE ANGELES

From the South, Mt. Pleasant in distance, Klahhane Peak at the right. 2,000 feet long, 600 feet wide. Elevation 4,000 feet.

There are trees on Mt. Angeles not twenty feet in height with trunks three feet in diameter. There are living trees two feet in diameter, every foot of the trunk lying prone on the ground, having basal limbs fifteen and even twenty feet in length — limbs stocky, thickly branched and densely covered with needles. In a particularly windswept location, where a number of trees have started life together, their branches will be so matted that one can literally walk on top, without paying any particular attention to the placing of his feet, and with absolutely no possibility of stepping through to the ground; one notable example of such stunted and matted forest is found on the south side of the Third Peak.

All trees in windswept locations have limbs only on one side, that away from the wind. Either the limbs which start on the windward side are broken off before they attain any size and strength, or they are gradually bent around into streamers in line with the prevailing winds. Thus in the Olympics, where the southwest and northwest trades are the prevailing winds, all limbs trend easterly. A compass is absolutely unnecessary on a mountain top, even in the densest fog.

On my last trip up the mountain this year, having travelled a long distance and become unusually tired, I slid down the grass slope south of Gopher Rock. Here, between the ridges, is a draw extending to the Burn west of the Sink Hole. Originally there was a high combing of rock at the head of this draw, along the ridge south from the Rock. As it disintegrated and the broken bits rolled down, there accumulated on the smooth and very steep slope a tremendous weight of rock and soil. At either side it gradually became covered with grass and heather and alpine plants, and then with trees. But finally the talus attained such great weight that a slide occurred, sweeping the center of the slope perfectly clean. Close to the edge of the rock, where the force of the slide was less, the well-anchored trees managed to hold their footing. In the course of time, the center of the draw again became covered with soil and this in turn with grass and heather. Seedlings sprang up along the edges of the two strips of old firs, where the grass first gained a foothold. Eventually the entire slope became grass-covered and the seedlings extended quite to the center. Now this is a long story of the work of Nature in this narrow strip of mountainside, but



His First Peaches

the story covers a long period, for a number of the larger trees at the edge of the rock ridges are fully five hundred years old. The second growth, bordering these mature trees, varies from three to twelve feet in height, the higher and older trees being those which first took root close alongside the old firs.

Sliding down that day, I pulled up a tiny seedling from among the hundreds growing in the center of the slope. Barely seven inches in height, it carries all the characteristics of the veterans of timber line. The trunk, smaller than one's little finger, is knotted and twisted, and hard and rigid as a bar of iron. The limbs, small and large, extend outward to either side, making the tree practically flat, or fan-shaped. Like many of the alpine trees, the lower limbs are larger and longer than the main stem. In fact, the longest of these had attained a length of seven inches, while the trunk, above the branch, had reached only three. Each year's growth is plainly indicated by the tiny bunch of terminal needles. Stripping these away, it is evident the seedling was adding one-third inch to the length of each limb and twig each year. The longer limb being seven inches in length, it follows it has been growing

twenty-one years. But since the limb sprouted from the trunk, the latter has made a growth of only three inches, or seven years to the inch. Being seven inches in height, the seedling must have attained the fairly dignified age of forty-seven years. This is further borne out by the rings of the trunk, which are only to be counted by the aid of a fairly powerful microscope. A fir forty-seven years old, as indicated by the annual whorls of limbs, would, in the lower country, be considered a fairly respectable tree — certainly no longer a seedling.

An average alpine tree fifteen inches in height with a trunk an inch in diameter, will usually have over fifty rings; estimating on that basis, a twelve foot fir with an eighteen inch trunk — and there are hundreds of trees of that size — would be fully nine hundred years old.

Surely this, and a thousand other similar things in the mountains, are remarkable, worthy the study of any one interested in the out-of-doors. Yet, as I said in the beginning, such a tree is merely a seedling, and nothing more, and all things are similarly a closed book to him who thinks he knows the mountains because he has taken two or three trips to the High Places.



Pack Rat

Two species of alpine trees always attract attention. One, the alpine fir, because of the smooth blue-black cones that stand like little owls close up alongside the trunk, the top limbs bearing them being less than a foot in length. Only this past summer I directed a friend's attention to four little owls perched on the topmost boughs of one of these trees and he looked several seconds before he burst out with "Those aren't owls!" The other is the Alaskan cedar, a tree quite different from the cedar of the low lands and having a very dense and beautiful yellow wood. Then there is the mountain ash, which grows in profusion in sheltered places; and the blue-berried or coned juniper which takes the form of a matted vine, rather than an upright bush; also the willow, two inches high, yet bearing perfect catkins on inch in length. Pines are plentiful, but only below timber line. Of the bushes, the most abundant are the white rhododendron, each being covered with hundreds of flowers; the pachistima, which is something like the familiar box of our gardens; the short alpine huckleberry and the still smaller blueberry; the red-berried kinnikinnick and the heathers, red and white.



Red Lynx
or Bobcat

The Alpine Flower Gardens

MOUNTAIN flowers! What a vision of wondrous beauty the very name inspires. Mountain parks and mountain slopes filled and covered with flowers. Flowers of every shape and hue. Flowers standing shoulder to shoulder, as thick as daisies in the pasture, or clover in the field. Red columbine, yellow and blue asters, scarlet paint brushes, blue lupine, white valerian and others, all thrown together in one gorgeous blanket of thoroughly mixed color. No wonder folks rave over the mountain flower fields. No wonder they are pictured and advertised as leading attractions of all our national parks.

Yet what are these flower fields? Simply more flowers of substantially the same kinds as those with which one is already familiar. Columbines, in their various colors, are a common cultivated plant. Paint brushes grow everywhere, provided the soil be poor enough. The flower of the mountain lupine

Frank Dann
after a Whistler



is not so very different from that of the common pea vine of the low land. The cultivated marguerite and the mountain asters are much the same, except in color.

There is more beauty, in both form and color, in a little bouquet of the tiny pink calypso, or lady slipper, so common in the mossy woods along lowland streams, than in all the flower fields of the mountains. There is no mountain flower that can for a moment compare with the common rhododendron, nor none with the white syringa of our river banks and lake shores. The person who cannot climb the mountains needs have no regret that he is unable to see the mountain flower fields for he has right at hand flowers very similar and fully as beautiful.

However, it is not the flower fields, not flowers en masse, but the individual flowers, which most interest those who have learned to love the mountains. We all love the heather, even though our species have pink or white bells instead of bonny blue; and the blue violets which grow in such profusion, tiny plants and flowers in some localities, large bunches and long-stemmed blossoms in others; the large alpine buttercup, with its glossy petals; alpine lilies, white and yellow, first flowers to bloom at



Alpine Pine "Owls"

the edge of the receding snow, or even occasionally thrusting their buds up through the snow; the Scotch bluebells, at home in northern regions the world around; the blue gentian, which, like the alpine lilies, frequently grows in solid masses — we love all these, but the interesting plants of the High Places are those which are found, one here and one there.

On our first trips up the mountain, we see only these here named — these and a few others. But as we travel the trail again and again, new forms attract our attention. At least it was so in my case, and I have noticed it has also held true with others. A lifelong student of birds, not of trees and plants, it was two or three years before I became particularly interested in the rarer flowers. Then I wanted to know their names — whether they were pinks, or phlox, or anemones — to be introduced to them, as it were, to include them in my list of friends. I knew a violet from an aster, a paintbrush from a buttercup. But what was this flower so like a violet, yet not a violet; this one that resembled a spiraea, yet grew on a tiny vine; this buttercup, identical, it seemed to me, with the mountain buttercup, yet growing on a bush?



FIRST AND THIRD PEAK AND THUMB ROCK
(Photo from the West.)

The Friendly Mountain

Not until I met Prof. J. B. Flett of Tacoma, and Dr. C. S. Eaton and Miss Winona Bailey of Seattle, on the first outing of the Seattle Mountaineers, to Mt. Olympus in 1907, did the opportunity come of learning the names of these puzzles in plant life. Very few of the mountain flowers have common names, they said. The violet-like flower was the Pinguicula vulgaris; the "bush buttercup," as I had named it, was the Dasiphora fruticosa, a member of the rose family; and the tiny white flower, a perfect little beauty, growing in the chimney of the First Peak, was the Romanzoffia sitchensis. In order to know the flowers of Our Mountain one must needs learn the Latin names, which I presently found were mostly Greek, not only being "all Greek to me," but being Greek in fact.

These scientific names were of no interest to me. I insisted I didn't care to make a study of botany; the little I had had in school was sufficient. I refused their importunities to collect plants for a herbarium; a few blossoms, a few fragments of those plants which had attracted my attention, slipped into the leaves of an old magazine on the margins of which were written the common or family names, would amply suffice.

The party — something over a hundred persons — was in the mountains, so it seemed to me, with the sole purposes of making a peak-climbing record. Two trips to the summits afforded me all the "military formation" I cared for. Thereafter I climbed the ridges alone, taking my time in observing the birds, or exploring certain features which seemed to hold forth promise of exceptional interest. Thus I covered the country surrounding Elwha Basin, from stream to timber-line.

But always I brought down flowers for my scientific friends. Upon their return to the city, they divided their specimens and one day I opened a package to find, much to my surprise, they had sent me a collection of one hundred mountain plants, all beautifully mounted on bristol board, most of them real works of art. I returned the compliment with a big bunch of plants from Mt. Angeles, gathered on the three or four trips made that fall — and presently I had mounted specimens of nearly all the flowers of the Olympics.

My friends were more than kind; they came down time and again, during the successive years, for camping trips. Profes-



Senecio websteri
The club flower

sor Flett, a tireless, rugged Scotchman, I particularly enjoyed. He was also a geologist and I could learn more from him in a week concerning the formation of the mountains than in a year, spent otherwise. And as he made a practice of referring to this flower as the slapterus theophilus and to that one as the thelio comeafterus, I soon learned the scientific names of the three hundred plants which comprise our mountain flora, whether I would or no.

Meanwhile the Mountaineers were visiting other localities, on their annual trips. Always the "botany bunch" was collecting and classifying plants, and always they put up "a set for Webster," until finally I one day took stock and found I had a collection of over two thousand mounted specimens, the flora of Washington's principal peaks and parks.

Still I am not a botanist, but I have learned to see more than a mere flower field, more than a slope covered with heather, or violets, or white cowslips. I know many interesting plants, their names, and something of them, and it certainly gives added zest to a day on the mountains. Some of these I would like to introduce to my friends who take pleasure in the week-end outings of the Klahhane Club, for whom this little booklet has been written.

First and foremost of these, and one of the dozen or so flowers peculiar to the Olympics, is Piper's bluebell, Campanula piperi. A true alpine plant, vine-like in its habit of following the tiny crevices of rock faces, its leaves a scant half inch in length, its flat star flower an inch across and of the most exquisite blue, it may well be named the floral pride of the Olympics. Exceedingly rare back on the Main Divide, entirely wanting on some of the mountains, it is one of the more common on Our Mountain.

Next in order of both interest and beauty I would place Flett's violet, Viola flettii, single plants, or possibly two or three, of which are sometimes to be found at the bases of the pinnacles. A round leaf, purple underneath, with a royal-purple flower, it has no rival, no equal, in its family. On the west ridge of Mt. Angeles they may also be found, two or three hundred plants, during a certain two or three weeks of spring. But presently, the talus drying out, they wither and even the leaves are blown away.

This habit of disappearing from view is also shared by the little mountain onion, another plant first collected on Mt. Constance by Professor Flett and known as

Allium crenulatum. It is the habit of mountaineers, when out on a long hike where water is not available, to carry a few dried prunes, the chewing of which starts the saliva and brings relief to parched tissues. Frequently, in late summer when some friend has been complaining of thirst, I have inquired if they liked onions and recommended these as a substitute for water. Yes, but I might as well offer them a piece of ice or a snowball where none was to be had. Yet they were then standing above thousands, tens of thousands, of onions, each as large as the end of one's little finger and of a particularly mild flavor; scraping away two or three inches of soil, a handful of the bulbs was secured in a few moments. In the spring each onion sends forth two tiny leaves, and later a bunch of greenish-white blossoms.

The mountain phlox and the primrose both matt- or moss-like plants, so tiny and close-crowded are their leaves, are always interesting because of the beauty and abundance of their blossoms. The phlox flower, white or lavendar, is nearly as large as in the cultivated plant, and dozens of them make a solid mass of bloom, almost concealing the leaves. The primrose is of the most brilliant shade of red and the flow-

ers so abundant on the tiny plant that they can be seen for some distance, a spot of color on the dark brown rock. Both of these are mingled with others on certain talus slopes, looking for all the world as though they had been set out in a garden plot.

Another moss-like plant of rare beauty is the moss campion, a pink, known, in Washington, only on Rainier until found by Flett on the Third Peak of Angeles. These plants, each two or three inches across, had strong tap roots reaching down into the crevices of the rocks. Each was literally covered with tiny pinks, apparently stemless and set down into the fine leaves. A year or two later, I one day investigated a bunch of moss, about fifteen inches in diameter, growing on the point of a high rock jutting from Second Peak, and found it to be the moss campion, a giant of its race. Lifting up the edge, the plant was seen to have a tap root nearly two inches in diameter and seemingly dozens of branching stems, the whole making a bunch of moss four inches in thickness, which must have borne, in season, two or three hundred flowers.

There is a spiraea, as perfect as the ocean spray, or the goat's beard — an alpine



Alpine Phlox

spiraea so dwarfed that its spike of white blossoms is three times as long as the plant itself, a mere vine, running along in the paper-thin crevices, or following the edge of the rock at the base of the cliffs and pinnacles; in the fall the delicate white flowers fade, turning brown and remaining on the stems, as does the ocean spray.

There are several depauperated plants, alpine representatives of the foxglove family. One of these has tiny yellow flowers, another purple, and a third disproportionately large purple flowers, all growing on plants so small, with leaves so tiny, they would never be noticed were it not for the multitude of blossoms each bears. The foxglove has many representatives, but one of the most interesting, to me at least, is the chelone, or turtle-head, which, growing from the Lodge clear up to the Burn, nods a welcome as one climbs the trail.

Flett's senecio, one of the asteraceae, is most abundant and wide-spread, a few plants growing as low as the Lodge; their finely dissected leaves and bunches of yellow flowers, each a half inch in diameter, go a long ways toward brightening the mountain sides. It is also a plant found only in the Olympics.

Among other paintbrushes, we have one variety peculiar to the Olympics; also we

have the rupicola, a brilliant red species long thought to be limited to Mt. Rainier; both are to be found in the vicinity of Klahhane Lodge. Another species of this plant, Castilleja orepola, is of a purple color and abundant in Heather Park, but not found at lower levels; on Rainier the same species is yellow. The fireweed (Evening Primrose family) also has its mountain counterpart in a species a foot high bearing four or five very large and very vivid colored blossoms; they grow in the chimneys on the southern slopes of Mt. Angeles. Still another mountain fireweed, having something of a tubular flower, is of yellow color.

The waterleaf, a large plant common along streams, has an arctic form six inches in height with fuzzy blue flowers, growing in the dry rocky slopes; it is one of the most beautiful we have, always bringing forth expressions of pleasure from those making their first visit to the mountain top.

There is a mountain timothy, perfect as the cultivated plant, but only eight inches in height; a white clover with blossoms as large as the red clover of the low lands; a mountain thistle, the blossoms of which are so sweet the ponies will snip off every head; our spring beauty, a claytonia, has several

cousins in the mountain parks, some quite large and incomparably more beautiful than the lowland plant; there are several arctic representatives of the lupine family, one being purple, another yellow, others blue and white; the mountain goldenrod, four to ten inches high, is another representative of a common prairie plant.

Among the plant oddities are the elephant trunks, four species of which are found; the shooting star, with its rose-purple flowers; the polemonium, one of which reaches a height of twelve inches, the other a tiny alpine plant, both having blue flowers and an odor strongly suggesting the presence of a skunk to windward; and the elk, squaw, or basket grass, known as the Xerophyllum tenax, without which no alpine park is quite complete.

Of the aster family there are almost any number of representatives, one, a large plant bearing many white flowers of goodly size, known as Eucephalus paucicapitatus, being found only in the Olympics. Some asters are pink, others blue, white, or yellow, and some have a lavendar tinge — not all are asters, but belonging to the aster family. One, having a name, Erigeron compositus trifidus, almost as large as it is itself, can be covered with an ordinary cup; yet I

have counted forty-five blossoms, each half an inch in diameter, on a single plant. It was growing in a rock crevice, where there was absolutely no soil, its overlapping blossoms making a round white ball.

One can only mention, in a small booklet, a few of the flowers, and such mention is of interest only to those few who most enjoy their beauty and fragrance, but I would add this one point: No one, on a single trip to the mountain top, can see all the flowers. Some kinds bloom only in the spring; some are in bloom all summer, spring, with them, being at the snow-bank's edge; some bloom only in the late fall, while others are released from the snow too late of an average year to put forth flowers. He who climbs Our Mountain early in the summer will find the slope alongside of Heather Falls a mass of yellow bloom; by midsummer it will have turned white, and in the fall it will be almost a solid blue. This is the case in various places, with different flowers, all through the summer, one of the most beautiful being the delicately blue field of Veronica cusickii, an alpine speedwell, near the camping place in the park.

The Mt. Angeles Game Sanctuary

DURING the present year I have made ten trips to the country above timber-line; eight of these have been up the northern and southern slopes of Mt. Angeles. On this basis, I might estimate 220 trips to timber-line during my residence in this country, 176 of which would have been to the summit of Angeles. There have been years when I did no climbing, others when most of my outings were taken to the mountains south and west of Mt. Angeles; on the other hand, when the mountains were new to me, I greatly exceeded the above average. This does not take into account fishing, hunting, or camera trips, visits to Klahhane Lodge, one-third the distance up the side of Mt. Angeles. Neither is it any indication of the number of days spent on the mountains, for many trips have been for one, two and three weeks each.

Not that this "record" is worth mentioning, as such, especially in comparison with



THE BAILEY RANGE WITH MT. OLYMPUS (IN CENTER) BEYOND
Photo Taken on Mt. Angeles

that of many others who spend a considerable portion of each year in the hills, but it is here given as a basis for the statement that there are fewer game animals and birds, and fewer small mammals, such as whistlers and squirrels, on Mt. Angeles than in any other portion of the mountains I have visited. On this subject, at least, I believe I am qualified to express an opinion.

Being close to town and easily reached by road, Mt. Angeles has of late years been constantly overrun, in season and out of season, by hunters and by gangs of small boys with guns, until the deer and bear, the grouse and pheasant, and practically everything moving that has offered itself as a mark, has either been killed or driven out of the district. Tracks along the summit trails would indicate that not over four or five deer are now living on the west end of the mountain. It has been years since I have seen a bear in this locality. Grouse are seldom heard and still more seldom seen. The whistlers, which gave no small degree of pleasure to visitors, are all but exterminated. Even the rabbits and squirrels are to be included in the list of rare animals.

It was because of this, and because of the ever present danger from boys shoot-

ing indiscriminately in the brush, that the Klahhane Club asked for and obtained the establishment of the Mt. Angeles Sanctuary, the lines of which, extending from the northern line of the National Forest to the northern banks of Morse creek and Little river, include all of the mountain and the valley between the mountain and the foothills on the north. Within this district, or at least within that portion of it tributary to Klahhane Lodge, members of the club, appointed deputy game wardens, have, with the assistance of the forest ranger, been able to prevent almost all shooting during the past year. Hunters and boys have been asked to leave their guns at Nelson's ranch, and notified that if shooting is heard they will be promptly looked up and arrested.

The effect, insofar as the grouse, quail, and whistlers are concerned, is already noticeable. This is the first season that a brood of grouse has reached maturity in the open woods around the lodge, the first season that a bevy of quail has made the bench its home, and the first time in years that young whistlers have survived in the park until time for hibernation. Doubtless within two or three years, as the birds and small mammals increase, the change will be quite marked. Undoubtedly the deer will

increase, both because they are not hunted and because of their being hunted elsewhere until, driven over into the sanctuary, they find peace and safety. Such has invariably been the experience in other states, when large areas have passed into the hands of persons who have prohibited hunting, and it undoubtedly will be here. Indeed, one need go no further than Humes' ranch on the Elwha to note the favorable results of sanctuary.

It is known for a certainty that game animals, and especially bear, immediately the hunting season is on and the sound of guns reverberates through the hills, travel considerable distances to get within the confines of Yellowstone National Park; judging by this, it is not at all improbable that we may again have bear on Mt. Angeles. I have stalked deer and elk many times, often being able to get within a few feet of them, and on at least three "notable occasions" I have given a black bear the surprise of his life. One of these occurred on Mt. Angeles. It had been raining for a day or two and going up the mountain trail I came upon the footprint of a bear in the soft dirt; it was evident bruin had passed that way only a few minutes before. Being some forty pounds lighter on my feet than of

late years, and having a pretty good opinion of my ability in covering a mountain trail, I believed it would be possible to overtake the bear by the time he reached the Burn and possibly to get a snapshot of him. As it happened, my bump of conceit was justified, but my judgment was correspondingly poor, for I overran the bear just beyond the Sink Hole. In those days, not so long after the mountainside had been burned over, the trees were small and all the logs exposed. That bear went downhill in as direct a line as he might have taken had the slope been entirely open and grass-covered, jumping the logs, tumbling end over end, making more noise



GOPHER ROCK

than a herd of stampeding elk, all of which is bear-fashion and to which precipitousness, plus the possession of an unbelievably keen scent, the black bear owes its existence today. There is no question that had it been bear nature to run a short distance and then stop, like the deer, to take a second look at the intruder, he would long since have been exterminated. However, this particular bear was in no danger, for I was hunting with a camera and not with a gun, and wouldn't have shot at him if I had been carrying one.

This chapter, though entitled "The Mt. Angeles Game Sanctuary," and though drifting off into bear reminiscences, was to have been a story on the mammals of the mountain. I was going to mention the fact that in all the times I have visited the top of the mountain I had never seen even so much as a footprint of a cougar; also that I had never seen a bobcat, though their tracks are numerous after every snowfall and though Mr. Fisher has trapped several every winter. I was going to tell of the big whistling marmot, sometimes standing twenty-four inches in his stocking feet, "True Mountaineer" of all the four-footed tribes, whose clear, sharp, ringing call welcomes the lover of the Upward Trail, and surpris-



Whistler

es him by being sometimes dressed in yellow, sometimes in drab, and again in his Jacob's coat of many colors, black, brown, slate, tawny-yellow, and even white, the former and latter colors being head-markings. I was intending to tell of the haploden, or Happy Hooligan, vulgarly known as the mountain beaver, which, years ago, was only to be found high up on the mountain, but which now infests every square yard of ground, even down into town, and which, only this last summer, has begun to make a gravelpile of the lawn in front of the lodge. I had in mind a paragraph on the snowshoe rabbit, which is in reality a hare, and which is distinguished by having a white line down its forehead, and by the further fact that it retains its brown clothes all through the winter, while the snowshoe of the Cascades dresses up in white; and that the weasels, small and large, both of which we occasionally have about the lodge, have the same peculiarity of retaining the brown pelage. I was going to tell a story or two about the small chipmunk which lives only high up on the mountains and compare it with those which come into the lodge to carry off crumbs and nuts and even to take crackers out of one's hands; and of the pine squirrel, the "bird" whose

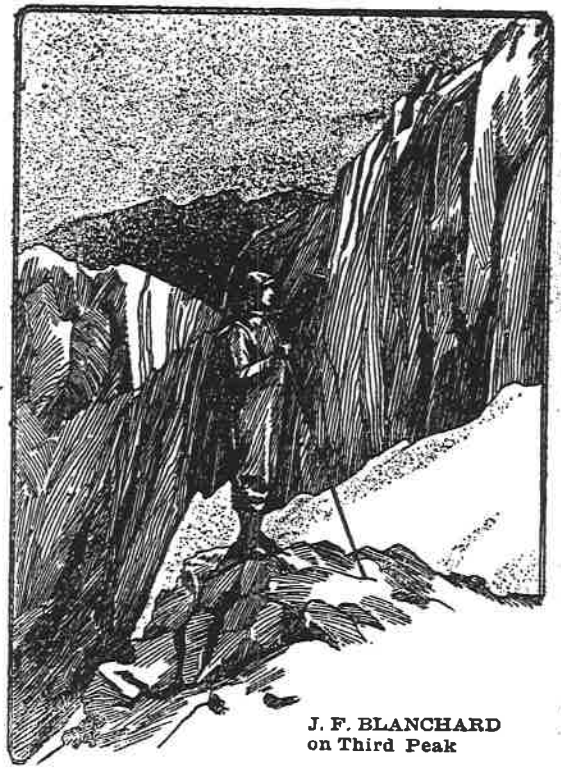


Dogwood

"song" frequently enables me to keep the uninitiated guessing; and of the flying squirrel which makes its home in the big trees on the hillsides; and of the wood- or pack-rats, which also are squirrels with bushy tails, and which, in the early days of our occupancy of the cabin, spoiled so many perfectly good boots; and of the long-tailed jumping mice of the alpine parks, and the red-backed and white-footed mice, both so common about our cabin — but I find it is not easy to write the stories of these animals without drawing on "The King of the Olympics," for therein I have told all, and more, than I know concerning them.



COX'S RANCH



J. F. BLANCHARD
on Third Peak

Birds of Interest to the Mountaineer

A FEW days before the coming of the first snow this fall, the morning being bright, the air crisp, and the customary loose soil of the trail frozen hard, I climbed Mt. Angeles for the enjoyment of a day in what is known as the mountain air. In town, we had been enduring, as best we might, the depression of continuous fog. As viewed from the Lodge, the fog bank, still present over strait and townsite, resembled a thin sheet of silver, but the muffled booming notes of the fog horn told a very different story — a story of chill, damp winds, of semi-darkness, of a state of general low-spiritedness. Up on the mountainside, however, "where mountain pine makes air like wine," the day was glorious, the view magnificent.

Many, many times have I been asked why I go out "to the mountains" in the fog or drizzling rain. Always I reply that I go out to get away from, and above, the dis-



Xerophyllum
tenax

agreeable weather, and to throw off the feeling of depression. My friend will look at me with a very evident expression of doubt on his face, and whether he says it or not, I always imagine he is thinking to himself, "You poor fish." Honors are even; he may grovel in the fog if he pleases; I'll take the bracing mountain air for mine.

On this particular morning I reached the Half-way Rock in, seemingly, a very few minutes, not warm, not at all tired, and sat down by the mountain maple to enjoy a smoke. Presently came a fluttering of wings, and an old female blue grouse — known as the Sooty Grouse to the ornithologist and simply as the Hooter to the sportsman — lit on the limb of a near-by white fir. After a moment of neck-craning, during which I almost imperceptibly pulled a field glass out of my pocket, she walked out from the base of the limb and began nipping off the buds of the tree. She was possibly twenty feet distant, but the glass brought her up as closely as though she had been perched on my knee. Now and then she would stop and give me the once over, or possibly it was the smoke that puzzled her. A quick movement and she would have been gone like a flash, but it is a peculiar fact that birds never seem to



Indian Pipes

notice a studied slow motion. After reaching the end of the limb, she slowly retraced her steps and went out on another. There was no hurry, being absolutely safe up in her tree, with abundant food so easily to be gleaned, and with warm sunshine, life to her had indeed fallen in pleasant places.

Over in an old stub, also projecting up into the sunshine, above the forest, a Red-breasted Nuthatch was searching for food, uttering the while its nasal nyaa, nyaa, nyaa, constantly repeated. A family of half a dozen Chickadees, attractive in their black caps and reddish backs, flitted through the branches. Now and then would come the call, elusive, melancholy, yet thrilling, of the Varied Thrush, or swamp robin.

Often you will hear someone, generally recently from the East, deploring the scarcity of birds in this country. And if one does not take into consideration the great number of both species and individuals of swimmers and waders, doubtless they are right. Yet the perching birds are far more plentiful than one would ordinarily think. In the East and Middle West, where are grove-dotted prairies and farms, where are to be noted the birds of the prairie and of the woodland and those which enjoy the company and protection of man and nest



Piper's
Bluebell

about farm house or in the outskirts of town, there are many and varied species. But here, where the country is covered, for the most part, with dense timber, few birds are to be seen, especially by one walking along a woodland road. But consider a moment: Most birds do not care for the dense timber with its semi-darkness, any more than you like November's fog. Birds are essentially bright and cheery by nature. Did you ever look down on the forest from above? Did you ever think that here is another world, superimposed upon the one with which you are familiar? A plain of broad-limbed tree tops; the roof of the forest, bearing millions of seed-filled cones and buds like unto the sands of the seashore. Insects innumerable are enjoying the sunlight, and dead stubs, here and there, are grub- and beetle-filled. Truly there is an avian paradise two and three hundred feet above the lowly mortal who trudges along the damp, shadowy road beneath.

Naturally there is a preponderance of seed-eating birds; one wouldn't expect to find many swallows, sparrows, warblers, flycatchers, wrens nor tanagers in the dense timber, nor on the mountain slopes. These birds, together with the meadow lark, towhee, blackbird, blue jay, and others, are



Camp Robber

fairly common about the clearings, the burnt-over or logged-off lands, and along the rivers, but not on the mountain slopes nor tops. And in this, the story of Our Mountain, we are interested only in those species which may be termed our mountain friends.

Some of these, such as Hepburn's Rosy Finch, the Pine Grosbeak and the Pine Siskin, are seldom seen in the lowlands; others, as the Crossbill, the Olympic Jay, the Purple Finch and the Varied Thrush, are common both in the mountains and the timberlands.

Undoubtedly the Olympic Jay, or camp-robber, is easily the favorite with all lovers of the mountains. They are so confiding, so interested, so hungry — always so very hungery! Immediately the smoke spirals up from the fireplace, or is wafted down wind from the campfire, the camp-robbers — father, mother, Johnnie and Jack, Mary and Sister Sue — are right on hand, waiting, and even pleading, for the bacon trimmings, bread, vegetables, anything, even to the soap, that they can eat or carry off and cache in a tree fork for another day. Often, especially when snow covers the ground, they become so anxious to be first at hand when the scraps are thrown away that they will alight on one's head or



shoulders, or sometimes on outstretched hand.

Another bird with which the mountaineers are very familiar is the Red Crossbill, a chunky little fellow about the size of the sparrow, having peculiar crossed mandibles which enable it to cut open the cones of fir and pine, that the seeds may be extracted with their tongues. Only the old males are red, the females being olive-green and young males a mixture of both colors. Usually they are to be seen in flocks, about the salt licks, or at the hot springs, or around a ranch house where salt is fed the ponies. Here they may be observed to turn their heads sideways in order that they may lick the salt from the ground. Always there is a flock under the buildings at the Olympic Hot Springs in the winter, and this past summer they were noted as being quite common at the Sol Duc Springs, where the mineral deposit, doubtless, answers the purpose of salt. Plant lice, or aphides, are also a favorite diet. Miss Chambers tells of endeavoring to see how closely she could approach one which was feeding in the fruit trees at their place. Apparently the bird paid no attention to her, and she was able to swing the limb around until it was within two feet of her face; when the bird gleaned

all the food from that limb and flew to another, she repeated the performance.

The Water Ouzel, or dipper, while hardly a mountain bird, is always to be found along mountain streams. About the size of a robin and the color of a catbird — slaty-gray, darker on head and neck — it is distinctive and well-known to all anglers, who enjoy its jerky motions, its clear voice always plainly to be heard above the roar of the stream, and the business-like way in which it gleans its food from beneath the water. They feed on periwinkles, so-called, which are really the larvae of the caddice fly, and creep along the bottom, clinging to the rocks till one is found, when with a stroke of two of the wings they rise to the surface. The nest is built in a big bunch of moss, gathered for the purpose, and located on a shelf or in a crevice of the rock, under a small waterfall, or in other safe place. While waiting for the arrival of a car, a number of Klahhane club members saw one building a nest, a few years ago, in a niche on the canyon wall under the Elwha bridge.

Of the woodpeckers there are a number of species, some, like the black-and-white Harris's and Downy Woodpeckers, or the Red-shafted Flicker, which, using the roof



as a sounding board, awakens us in the early morning, are familiar to all because of their frequenting the near-by woods, but there are at least three species of special interest. One, the Red-breasted Sapsucker with its bright crimson head and breast, which gives it the local name of red-headed woodpecker; another, the Lewis's or Black Woodpecker, shiny black above, with crimson forehead, gray collar and breast and reddish underparts, known as the red-breasted woodpecker, and the Pileated Woodpecker, or Logcock. This bird is not only the largest, being eighteen inches in length and having a wing spread of about two feet, but is also the noisest in the woods, the sound of its high-pitched, laughing call carrying for some little distance. With its strong bill, two and a half inches in length, it literally tears to pieces the old stubs, flying chips falling like rain as it penetrates the decaying wood after grubs and ants.

The Winter Wren, one of seven species found in this state, might well be termed "a joy forever." With the possible exception of the Kinglet, it is our most abundant bird, both in the deep timber and on the mountainsides. Its song, which bursts forth several times a minute, and its friendliness, or inquisitiveness, makes it a favorite of all who enjoy a day in the woods. One can

seldom sit down, even for a few moments, especially on the mountainside, without one of the little fellows comes up to investigate. Dodging in and out, uttering his quick "chick! chick!" it takes him only a moment to arrive on a limb within a yard of one's head, after which he flits to the other side, making certain nothing of interest is overlooked.

Very different in habit, in that it is one of our shyest birds, is the Varied Thrush, known by the common names of winter robin, swamp robin, Alaska robin, mountain robin, etc. Coincident with the first heavy snow of winter, these birds arrive in town by the thousands, every yard, it would seem, having a dozen or more of them getting their breakfast from such apples as may still be clinging to the limbs, or sitting patiently till the children throw out bread and other crumbs. If the snow be several inches in depth, scarcity of food will soon result in their becoming quite friendly, and after the snow disappears, in the course of two or three days, they find such an abundance of food that they are content to remain for several weeks. One year, the trees bearing heavily, I left over a barrel of windfalls on the ground; to tell the truth, I rather dreaded the task of pick-

ing them up and burying them. Shortly there came a heavy snow, which soon melted, whereupon those apples disappeared like magic. I repaid the birds for their good offices by feeding them another barrel of the smaller apples before the close of winter. Nine persons out of ten — more than that — will tell you that these birds, the Alaska robins, have been driven down from the north by a cold wave; but in reality their journey was one of less than five miles, or from the slopes of our own mountains. Being very shy, they are seldom seen by the casual observer, and in the summer they are also seldom heard. A true web-footer, they love the rain, the fog and the mist. Then, when the evergreen trees and bushes and the dead leaves are dripping, they break their summer-long silence and their song, one long note, wierdly plaintive and melancholy, is to be heard on every hand. Walking down the mountain road in a light, drizzling rain one winter afternoon, oblivious for the time being to all else save my own thoughts, for it was on such trips that I gathered my recollections and framed up the animal stories for "The King of the Olympics," I was suddenly awakened by hearing one of my companions in front remark that she liked the spring best of all the year. Another said she liked the summer

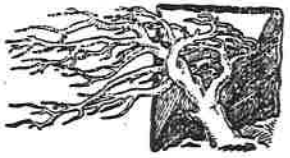


best; doubtless they had been discussing the rainy day. And then the third spoke up, "I like the summer too" — then a pause of several steps — "but I like the rain best." Often, it has seemed to me, one person has the characteristics of the modest song sparrow, another resembles the redpoll, another the noisy bluejay, and still another the wren, but here, undoubtedly, was the bird of sombre depths and dripping foliage, the bird which is most happy, most cheerful, when all others are morose and silent — the Varied Thrush.

The wood thrush, or Russet-backed Thrush, is, of all timbered-land birds, the one most frequently noticed. Yet seldom, indeed, does one get a good look at him for he flits across the road more like a shadow than a bird, and his voice, calling quit, quit, always comes from behind the cover of brush. A pair has nested for some years in the immediate vicinity of the Half-way Rock and apparently being unafraid will usually come down as closely as the branches will allow. Often I have had them flit from limb to limb, in a circuitous course, until within some eight or ten feet of me; nor are they in any hurry to leave, seemingly enjoying human companionship. The thrush's song, always at eventide, as

the sun is sinking out in the ocean and tinting the mountain tops, is something wholly different from that of any of our other birds. It is sacred music, low, sweet and solemn, and brings to a fitting close a Sunday spent in the peace and quiet of God's temple.

Three species of small birds, about warbler size, always to be noted in small bands or flocks, of from a dozen to fifty, are the Pine Siskin, the Golden-crowned Kinglet, and the Redpoll. While the Kinglet, tiniest bird, next to the hummer, dressed in olive-green with a streak of orange or yellow partially concealed by a black cap, is the most abundant of all Washington birds, the Pine Siskin is, of the three, the one most often observed, especially in the mountains. In coloration, brownish above, lighter beneath, streaked everywhere with dusky, and showing a flash of yellow, due to the yellow base of wing and tail feathers, they are quite distinctive. Someway the siskins always seem to be happy, a sort of rollicking bird, having an undulating flight, as those at the rear of the flock are continually taking the lead; their notes, too, are a sort of chatter, as though they are calling to each other as they pass by. Both siskins and redpolls, the latter a tiny, streaked bird, with forehead, breast and shoulders a beau-



tiful crimson, are also notable in that they glean the greater part of their living from the seeds of the alder catkins, which remain on the trees through the winter. The Redpoll is a winter resident only.

The Purple Finch, a bird of crimson and not purple plumage, and whose mate is olive-colored, is one of the more common timberland species, frequently seen in town when fruit trees are in bloom. Generally one will note not ever one or two males in a flock, due to the fact that the young males have the coloration of the female. On the mountainsides, when the wild currant is in blossom, one can often approach quite closely to them, and sitting down near by, can observe them picking the blossoms, eating the base of the flower and dropping the crimson petals, until, if the bush be a large one, the ground becomes covered with the pink bloom. They have a very pleasing song, a sort of yodeling, and will at times imitate the notes of other birds, but the characteristic which I like best is their entire friendliness.

The Cedarbird or Cedar Waxwing, frequently seen in small flocks in town in winter, is another bird of the mountains, always at home at timberline because of the quantities of berries of the juniper, kinnikinnick, mountain ash and trailing snow-



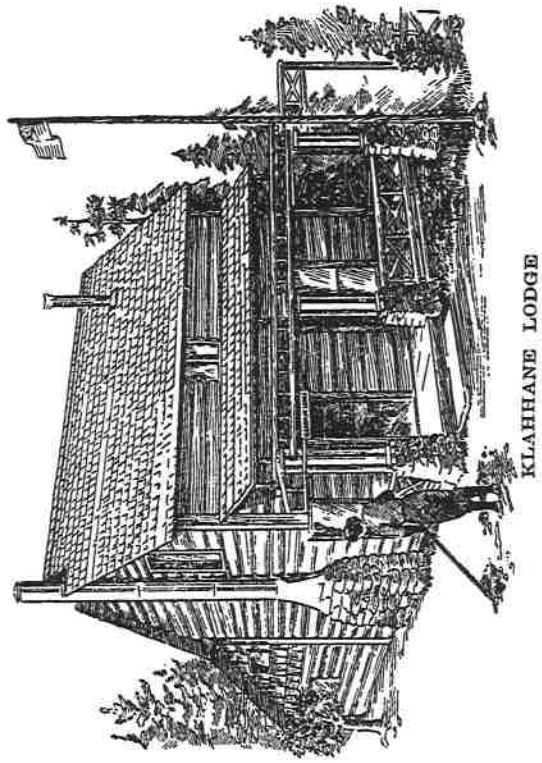
berry; these furnish food early and late, their mainstay after the real fruit season. One of the most beautiful of birds, with a long crest, delicate grayish-brown plumage and contrasting black markings of forehead and chin, it is further distinguished by the "red sealing-wax" tips of inner wing feathers.

The Pine Grosbeak and the Evening Grosbeak are two very interesting birds, of which only the latter is ever to be seen, and then rarely, in the lowlands. Both species are large and plump, and both attractive because of their striking coloration and their large conical beaks. The Pine Grosbeak is rosy red, very brilliant in the adult male, while the female wears an olive-yellow dress. A single bird of a brilliant red, observed by the Klahhanies in Canyon Creek Basin this summer, was perched upon the red heather and flew only a few feet away to the other side of the trail, where all had a good long look at him, before continuing their climb. The Evening Grosbeak, with its bluish-yellow bill, yellow forehead, black cap, black-and-white wings and tail, and general olive-brown coloration, is quite different from the Pine; the female is duller and lacks the striking head markings.

The Hepburn's Leucostice, or Rosy Finch, vestal virgin of the snows, is of all birds the true mountaineer, nesting above the snow and ice fields and gleaning its food from the seeds of alpine plants and wind-blown insects which are always to be found benumbed or dead upon the snowfields. Never have I seen a single one of this species below the very topmost ridges or peaks; apparently they spent very little time in the parks, even though the grassy slopes run up quite to the base of the rocks. Being of a chestnut or rosy color, with gray cheeks and head and a black cap on the forehead, they are distinctively marked and can never be mistaken for any other bird. They nest in fissures in the rock, in the high mountains from Washington to Alaska, wintering as far south as Colorado and Oregon. They are not common in the Olympics and one who loves the birds may consider the day well spent when he has had the opportunity of closely observing even a single bird.



A Steep Coast



KLAHHANE LODGE

The Story of Klahhane Lodge

IT WAS a third of a century ago, in the early days of the county, when several thousand people were selecting homesteads and timber claims, each with an eye to the greatest financial return therefrom, that Louis Williams, scholar, lawyer, and poet, and lover of the great out-of-doors, harkening to the call of Mother Nature, went well up onto the side of Mt. Angeles and filed on a piece of land for his woodland home.

Now Klahhane Lodge

There was nothing particularly attractive about the site, insofar as the land itself was concerned, for the bench was short and narrow, the soil a coarse gravel, and the timber worthless. But there was a splendid view of the encircling ridge of the mountain; also a view, seldom equalled, of the interlacing hills extending to the eastward. Along one side of the bench a stream tumbled through a tiny gulch, pos-



sibly one hundred feet in depth, to unite below with other branches of Ennis creek, cascading down the mountainside on its way to the beach, some six miles distant. Should one fancy a wider vision, from a jutting rock a short distance above the bench, his desire might be gratified. Below, the town and bay of Port Angeles, the strait of Juan de Fuca, Vancouver Island with the ocean on one side and the Gulf of Georgia, island-dotted, on the other; beyond, the Cascade range, culminating in Mt. Baker — the "Great White Watcher" — and extending to the north in a long serrated line of great peaks that end only as they drop below the horizon.

Here Louis Williams built his summer home — a two story house of fair dimension — of cedar logs, sawed and planed on three sides, dovetailed at the ends and laid together with all the nicety of a piece of mission furniture. The ceilings were beamed, the floors of two-inch cedar plank, the stairway and seats of rustic design, ornamental windows, a massive fireplace, and outside a thirty-foot porch, with a fountain and pool below.

Then came the establishment of the Olympic National Forest, the line running along the further edge of the valley below, and

Louis, disgusted, took government script for his improvements, the clearing becoming public property. As such it was used as a camping place for many years, or until the advent of the automobile brought the development of good roads to Lakes Crescent and Sutherland and throughout the county, and the old winding wagon road up the mountain fell into disuse, the bridges became unsafe, and the cabin, visited only by hunters and the ubiquitous small boy, became the abode of wood rats and other animals of the forest. Meanwhile the clearing, reseeded from standing timber about, grew into a dense forest of young trees: fir, hemlock, cedar, pine, willow, alder, dogwood, cherry, maple, and all the rest, with a fair sprinkling of the many flowering shrubs for which the Puget Sound country is noted far and wide. Flowers also — columbine, honeysuckle, clintonia, pyrola, paintbrush, white rhododendron, goatsbeard, and dozens of others — filled the openings between the young forest growth, brightening and beautifying the whole. The fruit trees, too, grew, even if slowly, and are still to be found here and there.

Such was the condition of affairs in 1914, when the Olympic peninsula mountaineering club, recently organized, leased the cabin from the Forest Service and appro-



Anemone

priated Mt. Angeles and all that thereon is. On the first visit, by a party of some twenty members, who took out lumber and materials for repairs, the club was named Klahhane (Siwash for out-of-doors) and the cabin Klahhane Lodge.

Helping-hand days were held, the big fireplace being replaced, rustic furniture made, and finally — the present year, 1921 — an addition, larger than the original cabin, was built. Trails were improved and sufficient clearing done to open up the view of the hills to the east and of Mt. Baker between the foothills on the north.

Many have been the week-ends and holiday outings, in the summer when all nature seemed to please and the walk along the woodland road was one of the enjoyable features, and in the winter when the branches of the trees were laden with snow and the short days were ushered in at ten o'clock by the rising sun and closed three hours later with its setting behind the mountain ridge — days when the nights, though twenty hours long, seemed all too brief to those who, freed from the conventions of professional life, unbent and became "just kids again for tonight." But all this is part of another story, "The Story of the Klahhane Club."



"Heart 'o the Hills and the Trails

FROM Beaumont's at the timber's edge south of town to the foot of the mountain there is only one ranch, a delightful place which Mr. and Mrs. Oscar Nelson have named "Heart 'o the Hills" and which will in a few years be a fine dairy and fruit farm.

Near by is the forest ranger's station, and east and west run Forest trails to Morse creek and Little river. From the starting point of the latter trail, at an elevation of 1957 feet, or 400 feet below Klahhane Lodge, according to the record on a bronze-capped post set by the U. S. Geological Survey, it is five miles to Coleman's ranch on Little river and six miles additional down Tumwater creek to town, practically every step down hill, making an ideal route home, or, by taking the old Little river road to the Elwha, about five miles from Coleman's, the hiker comes out on the Olympic Highway, midway between town and the lakes,



and at the beginning of the Elwha and Olympic hot springs trails, a favorite trip.

There are other trails, one from Nelson's ranch up Ennis creek to an old prospect of Gregory's, a tunnel driven some forty feet into the hard rock of the mountain; the Klahhane Trail, from the lodge up Ennis creek to the canyon and falls, Starvation Flat, and the largest snowfield on the mountain; the Little river trail, from Coleman's to the park at the head of Little river and on to the summit of Hurricane Hill, where one may take the grass ridge eastward to Mt. Angeles and on to the head of the Dungeness and Lillian rivers. A branch from the Little river trail leads to Gregory's present mine, where are some four hundred feet of tunnels. Another trail, from the main road, leads down into the deep valley of Ennis creek to Horstman's mine, and out again at Beaumont's.

The Morse creek trail, five miles up over the Ennis-Lake creek divide and down the latter stream to Morse creek, and continuing on up Morse creek to Cox's valley, also furnishes a delightful side trip for those who visit the mountain.

The Mt. Angeles Trail

But the real trail, the "Mt. Angeles Trail," is the one that heads in at Klahhane Lodge

and ends at Gopher Rock on First Peak. Barring the long slopes of the zig-zag trails on the Soleduck-Hoh Divide and the Low Divide between the Elwha and the head of the Quinault, there is doubtless not as easy a trail to climb in the Olympics. In fact, the only steep portion, until one reaches the foot of the peak itself, is that along the Half-way Rock, a jutting shelf on the sharp ridge about midway between the lodge and the Burn. This tablerock, being of goodly size, affords a splendid resting place for a large party and the view to the north is fully as good as is to be had from the main summit of the mountain itself.

The Burn and Sinkhole

At the edge of the Burn, where one steps out of the thick brush of the ridge into a veritable flower park — the red of the columbines and castillejas, the white of the heliotropes, the purple of the mountain lupines and the gold of arnicas and senecios — one experiences a feeling of relief and pleasure that is indeed gratifying. All about are tiny trees, each a real little "Christmas tree," perfect in contour and beautiful in its dense blue-green foliage. Great boulder-like rocks stand here and there, contrasting with the ivory-tinted stubs and logs, remnants of the forest long since



destroyed by fire. The little forest folk, rabbits and chipmunks, are abundant, while more birds than one will ordinarily see on a day's hike through the woods, are singing or rapping out a welcome. A few steps further, and one reaches the edge of a wide grassy pool — dry in late summer — the sink hole at the foot of the cliffs of First Peak. From a bunch of rocks on the opposite side comes the whistle of the mountain marmot, or whistler, who, his fear being finally overcome by curiosity, ventures out into view, a tawny, long-haired, bushy-tailed woodchuck, occasionally as large as a small spaniel. If one be tired and choose to rest awhile and enjoy the surroundings, a deer may, ofttimes, be seen walking slowly and gracefully along between the rocks and trees of the side hill, or a blue grouse and young — both female and chicks being of a yellowish-brown — may materialize on a tiny gravel spot not fifty feet away, the coloration of both animal and bird harmonizing perfectly with their surroundings, splendid examples of Nature's camouflage.

Climbing First Peak

Those making the ascent of the peaks have a choice of four trails from the sink hole. Heather Park between the First and

Second Peaks may be most easily reached by the trail around the left or east side of the peak. This trail, put in by the Klahhane club, has never been quite finished and it is necessary to know the general trend, especially in foggy weather, if one is to comes out at the foot of Heather falls without loss of elevation. Another trail runs up — and straight up — the chimney to the base of Gopher Rock; the lower end is reached by a climb over logs and between large rocks lying on a bench east of and above the sink hole, and the upper end terminates in the triangular patch of grass and heather immediately below Gopher Rock on its eastern side. The other trails divide just above the sink hole on the west side, one going up alongside the rocks to the left and after a stiff climb through dense timber reaching the Rock at its lower right side, the base of a snowfield till mid-summer and a heather stairway thereafter. The fourth trail, oldest of them all, leaves the base rocks for the rhododendron brush of the draw midway between First Peak and West Ridge; its upper end, for 500 or more feet, is a grass slope, steep but easy, and it terminates south of Gopher Rock. Early in the season this is by far the quickest way down, for the snowfield which then covers

the grass slope is negotiated in an instant. Well do I remember my first ascent of the mountain, taken early in the year when the trail was under snow and to me unrecognizable. We climbed up literally over the rocks above the sink hole, making the hardest kind of work of reaching the summit. Returning, we went down to the upper edge of the snow slope, wondering if we couldn't more easily get down that way, when one of my friends, himself also recently from the East, lost his footing and shot down. His wife, screaming with laughter over his gyrations on the snow, also lost her balance and tobogganed on her back to the trees below. But those were the days of long skirts and instead of spinning round like a top, her skirts, trailing back over her head, held her to a straight feet-first course. The snow was soft and wet and cold, and soon I noticed she seemed to be in a hurry to get down to the camp and a fire.

The West Ridge

The West Ridge, sometimes called Wildcat Ridge, a mountain rib running down from First Peak to the junction of the forks of Little river, is only a short distance across the Burn; being low, it affords those who do not feel equal to farther



strenuous effort an opportunity to see the glorious snow- and ice-clad summits of the Bailey range and the peaks of Olympus itself. Also, one may there find the mountain phlox, primrose, anemones, and many others equally beautiful, and a whole slope of those exceedingly rare royal purple violets, Viola flettl, which grow only in the Olympics. A further advantage is to be noted in the fact that the south side of this ridge, which can be reached in ten minutes from the Burn, is free from snow fully two weeks before the First Peak, the flowers coming into bloom earlier.

The Snow Cross

From the West Ridge, also, may be seen the Snow Cross, a view of which is denied those who climb on up the First Peak. This cross, so large and distinct that it could be seen miles away, did not timbered ridges intervene, would be a remarkable feature of the mountains were it located on the north side. On the ridge are tiny pinnacles of dolomites, rows on rows of them, and windswept alpine fir, those strange dwarfed trees found on the bold rocks where there is little or no protection.

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