the Mountaineer

1960

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The Mountaineers

THE PURPOSE: to explore and study the mountains, forest and water courses of the Northwest; to gather into permanent form the history and traditions of this region; to preserve by the encouragement of protective legislation or otherwise, the natural beauty of Northwest America; to make expeditions into these regions in fulfillment of the above purposes; to encourage a spirit of good fellowship among all lovers of outdoor life.

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FOLDBOAT VOYAGEURS

By WARD IRWIN

"To explore and study the mountains, forests and watercourses of the Northwest" is a phrase familiar to Mountaineers. Yet it means different things to different people.

Skier, climber and hiker witness the birth and growth of watercourses in high mountains. Each takes a different view of it. Water when frozen is to slide on; liquid water is to put in tea, slosh in boots, lubricate steep slopes, wring from socks, and teeter across on footlogs. Water makes gullies to climb in, and later it makes valleys to put trails in to get to the gullies, and then later bigger valleys to get to the trails. Most Mountaineers let it go at that, but not one small band. These people insist that water also is to sit in, to tip over in, and to dispose of almost-new sunglasses and cameras in. They live on it or by it on weekends and dream of it on week nights. These are the three dozen or so Mountaineers who let foldboating compete for time (and money) along with skiing, climbing, and valley pounding.

Foldboating in this region is well into its second decade. Pioneered by individual Mountaineers during the war years, it began to attract enough participants by about 1948 to warrant organization of a foldboating group. Training for both novices and leaders was needed, along with improvements in party organization and safety techniques. Failing to obtain club backing for the project, interested Mountaineers finally formed a new group, the Washington Foldboat Club. This is an entirely independent club, but over a third of its members also are Mountaineers, and its programs show the valuable experience gleaned from our climbing and ski mountaineering activities.

Actually folding boats of one form or another have been seen in the United States for almost a century. However, most of the development of our present type took place in Europe, particularly in Germany. Until recently Europeans never have had large numbers of automobiles, but they have had a highly developed network

of waterways, bus and train routes. For decades thousands of Europeans have toured with foldboats, carrying the collapsed boats in their bags on public transportation to convenient starting points, then assembling boats and paddling or coasting downhill along the waterways. Between trips even apartment dwellers have little difficulty storing a pair of boat bags.

For the uninitiated, the modern foldboat has a kayak form, with waterproof canvas decks and a tough puncture-resistant hide of neoprene or plastic bonded on fabric, like a tire. Wood frames are partly assembled, then pushed into each end of the hull and clamped under pressure to form a strong, quite rigid boat. Air bladders in the bow and stern supply flotation in case of upset, and equipment is protected in waterproof containers. With the spray cover over the cockpit and a snug apron, the boater can stay dry even in very rough water. Assembled, a double boat is about 17 feet long and a single about 14 feet. Disassembled, a boat goes into two bags, the longer of which is about 4 feet long; there also is room for camp gear, food and equipment for a week or more of paddle touring—if one loads as efficiently as for backpacking. Within the last year development of rigid, fiberglass kayaks has been progressing well, and these boats may soon supplant the foldboat for some uses.

We live in a kayaker's paradise. While European contemporaries portage around locks and dams every few miles, we still have hundreds of miles of free river routes which man has not yet touched. We have no seasonal limits. When eastern and southern friends put their boats away as streams run dry in summer, we switch to glacial streams or turn to salt water exploration along the coasts and among the hundreds of islands to the north. Fall river trips often are enlivened by meeting salmon struggling upstream to reach their spawning beds. In winter a core of enthusiasts continues, wearing cold weather suits for protection. After instruction classes and practices in the spring, trips begin on rivers within easy reach of Seattle. First runs usually are easy, growing more interesting as the season advances. Stretches of the Dungeness, Stillaguamish, Skykomish, Nisqually, Snoqualmie, Sauk, Naches, Yakima and Cowlitz Rivers are among those commonly run, while explorations of new descents by scouting parties continue.

So young is the kayaking sport here that only a fraction of the boatable streams have been touched. Skilled foldboaters still can pioneer first descents of stretches of river never yet conquered by man. There is as much challenge here as there was from unclimbed

peaks in the Cascades a quarter century ago. In recent years members have made many notable trips down the Snake, Salmon, Clearwater, Rogue, Kootenai, Athabaska, and others.

This summer several Mountaineers participated in the first foldboat descent of some 120 miles of the Bowron River in northern British Columbia, a wilderness trip of nearly a week's duration. This is where the foldboat is at its best, slipping easily through trailless wilderness where a more clumsy, less rugged boat could not go. It takes a pioneering spirit of a high order to organize and carry out a trip of this nature where there is no turning back and no escape except down river come what may.

Many miles of salt water slid under the hulls this year too. Cruises ranged from the islands of the San Juans to the southern fingers of Puget Sound. The annual paddle to Hope Island combined a smorgasbord with opportunity to observe migrations of waterfowl. Two eight-day trips in Canadian waters best demonstrate the potential of the foldboat for salt-water exploration.

From Seattle to Anacortes is about two hours by car. Paying foot passenger fare, people can carry boat bags aboard the ferry, land in Sidney, assemble the boats on the dock, and in the same afternoon point bows northeast into the Gulf Islands. Across the first three-mile channel lie hundreds of islands and islets, largely uninhabited, stretching about forty miles up the east coast of Vancouver Island. A loop trip to the outer islands and back to Sidney easily occupies a week, or one can explore far to the north, swinging back to Vancouver Island at Ladysmith (as the group did last year) packing up boats and returning to Sidney by bus. During this trip one sees little human sign. The boats carry everything, including water. One roams at will, camps on remote sand beaches or rock ledges, swims in warm water, pokes along within touch of rocks encrusted with marine life, slips through shallows and into caves where power boats dare not go. Occasionally a brief battle with wind, tide and waves livens a channel crossing. A few people sail with fair winds, but most paddle. Free from motor noise, using tides as rivers when possible, landing frequently, one can average a leisurely ten miles a day without strain. For three years this has been a popular outing, and it may become a classic.

A new outing last summer proved even better. Many miles up the west coast of Vancouver Island lies Barkley Sound, open to the Pacific yet nestling within its mouth over a hundred craggy, tree covered islands. Exposure to the ocean keeps small boats from

beating up the coast from the south; thus the Broken Islands are unknown except to local fishermen, loggers and Indians who live at isolated spots on the shores of Barkley Sound. These people seldom go ashore on the islands, and information on beaches, water and campsites was virtually nonexistent last spring. However, in August twenty-eight curious people with foldboats and a week's supplies drove west from Port Alberni over fifty miles of logging road to the shore of the Sound. Assembling and loading boats under the questioning stares of the local populace, they pushed off for the unknown islands to the north. This was a scouting trip and an experiment in wilderness exploration.

Returning a week and some seventy miles later, these people knew the islands well. They had crossed several three-to-five-mile stretches of open water, felt the swells of the Pacific and the action of high winds and waves. They had been rain-soaked a day, but sun-warmed most of the time. They knew of many fine beaches, idyllic campsites, but they knew from experience how to camp in the brush too. Fresh water was to be had, and clams and fish. There were abandoned Indian villages, shacks long in ruin, for the islands have gone back to uninhabited wilderness. There were deep sea-caves to probe with the boats, lagoons rife with creatures of the sea, white water for playing as swells rushed among the rocks, and tight passages (duplicates of mountain lakes and streams) between islands. Above all there was the sense of timelessness that goes with wilderness, the natural sounds—wind and sea gnawing at the islands, crows overhead, the splash of paddles—just as it has been for centuries. Even twenty-eight people in paddle craft do not destroy this feeling. There was satisfaction too in knowing that a boat a third the weight of a man can carry him and all his needs for extended cruising in such waters. Experience with the Gulf Islands and with Barkley Sound whetted the appetite for further exploration of fjords and islands farther to the north in summers to come.

It should be evident that foldboating as we know it is a group activity. There is good reason. Here, just as in climbing, each individual relies on his own efforts; still he needs experienced leadership as he learns, and he needs support from other boaters now and then. Our water is much too cold and tides and rivers too hazardous for solo experimenting. Prospective kayakers should meet and travel with people who understand safe boating techniques and quick rescue methods.

It is surprising how near our cities one still finds wild country

along the rivers. River frontage seems to be among the last developed by man. Thus, within a half hour's drive of Seattle, one can still paddle through forest, down river trails only occasionally touched by road or habitation. All this is changing though, just as in the mountain country. Most lakes accessible by car and trailer now echo the roar of outboards and the slap of water skis. Marshes, once the home of birds, are cleared for moorage or filled for building sites. That fine canoeing river, the Sammamish, is now a race course for speedboats, and propellerless powerboats are beginning to thrust up even the rocky, white-water rivers. These are the developments of only the last half dozen years. Dams soon will flood many beautiful stretches on our more spectacular rivers.

Probably the kayaker, hiker and climber all will have to keep going farther afield as their playgrounds disappear. Still we hope that there always will be white water kayaking as we know it now, and that here it never will come to mean what it means to many groups in Europe—opening the flood gates of the local dam to get an hour of slalom racing in the stacks a few hundred feet downstream.

INSIDE

THE MOUNTAINS

By DR. WILLIAM HALLIDAY

"Caves? In the Northwest? None around here. Of course, down in Oregon . . . "

A little exaggerated, perhaps, but this kind of response is usual in the Pacific Northwest. Until recent years, the few people who knew of a local cave or two assumed that they were merely exceptions that proved the rule.

Caves were found in the State of Washington during its earliest days of settlement. The first published news of a cave was in 1869—Ice Cave near Mount Adams—six years before discovery of the Oregon Cave. Interest was further stimulated by the discovery of permanent ice in one of the lava tubes between Mount Adams and the Columbia River Gorge. It was a marvel that ice existed only a few feet underground when midsummer temperatures on the surface ranged well into the nineties.

Other cold-trapping lava tubes in that area served the pioneer settlers of the White Salmon Valley for a variety of utilitarian purposes, as substantiated by the names which they still bear—Butter Cave and Meat Cave. Cheese Cave owes its name to a commercial venture of the 1950's but formerly was used for the storage of potatoes.

Through the years these lava caves south of Mount Adams have remained the best known caves of Washington but others have received flurries of publicity. An article in the 1903 volume of *The Mazama* describes part of a large lava tube south of Mount St. Helens, discovered eight years earlier and known today as Ole's Cave, named for Ole Peterson, its discoverer. Some fifty years passed before the estimate by the Mazamas was verified that the partially explored cavern was a mile long.

A big year in Washington cave history was the discovery of two caves in northeastern Washington in 1903. North of Metaline Falls, Ed Gardner found a large limestone cavern. The main passage of the

Gardner Cave is 800 feet long, reaching a depth of more than 250 feet. The first few hundred feet are spacious and contain many massive and curious formations. Then the cave narrows down to a crawlway and when it opens again into another passage, it is muddy and barren. Gardner Cave is being operated by commercial interests and regular tours are available for the sightseeing tourist.

Coincidentally, members of the Albright family located the second largest limestone cave in Washington practically in their backyard near Conconully. Gardner's discovery received wide publicity while the Albright Cave was barely mentioned. This seems curious since the publicity could hardly have been advantageous for Ed Gardner's bootlegging business, but many things are curious about caves and their history. In later years other caves were discovered and recorded, but, being of lesser importance, they were soon forgotten by the general public.

The situation was somewhat different in Oregon. Almost since its discovery in 1875, vast publicity on the Oregon Cave has given the impression that the State of Oregon contains many great limestone caves. Nevertheless, the limestone caves of Oregon are limited to the triangle formed by United States Highway 99 and United States Highway 199, south of Grant's Pass, and none, except the Oregon Cave, is of much interest. The majority of the caves which are found in Oregon are lava tubes near Bend, although a few lava tubes are located northwest of Bend in the Cascade Mountains and several in the desert areas of southeastern Oregon. Malheur Cave is the best known of the latter.

During the 1940's, cave exploration as a sport and speleology (the study of caves and their contents) began a period of mushrooming growth throughout America. Initiated in eastern United States, interest in cave exploration reached the northwest in 1950. During that year, several Mountaineers and other northwesterners, aroused to the lure of the underground, organized the Cascade Grotto of the National Speleological Society. This group located, explored and carried out preliminary studies of almost every major cave then known in Washington and several in Oregon. Unfortunately the cavers' enthusiasm exceeded the supply of caves known at that time and even though they succeeded in discovering additional caves, interest soon slackened.

Entered upon the scene a hero, as a classicist would say, in the person of a Mountaineer, Tom Steinburn, fresh from his conquest of Mount McKinley. Learning from Bob Clark that there was a tiny

cave in the saddle between Guye Peak and Mount Snoqualmie, Tom and his wife, Ann decided on an exploratory trip. Much to their amazement, sinkholes and cave entrances were scattered throughout an area ranging almost half a mile across. The more they searched, the more they found. None were really large, but at least three were more than they could safely tackle alone.

One of these newly found caves was a slanting crack, too narrow for Tom. Ann squeezed into it feet first for several yards, but could not turn around to see what was ahead—or rather behind. To date no one else has done better. Another opening led downward a few feet to a broad, low chamber, partly choked with breakdown. At its far end was a deep, broad pit, extending deeper into the mountain and clearly no place for a novice. The third was most impressive of all. A depression, almost hidden in the heather, had a small hole at the bottom. It looked large enough for a person tc wriggle through, but the beam of the flashlight indicated the hole opened straight down into the vault of a large, deep chamber. Rocks dropped into its maw floated downward until they shattered at the bottom far below.

Tom's discoveries on the flank of Mount Snoqualmie were not the only progress being made in caving. Tom teamed up with two cavers from the Southern California Grotto of the National Speleological Society for a caving and climbing trip to Glacier, British Columbia. Here they found that the Nakimu Caves are of great extent and considerable depth, a massive limestone formation which has been cut and shaped by underground streams.

A group of teen-agers calling themselves the Mount St. Helens Apes, in memory of a local legend, prowled the lava beds near Ole's Cave and found several other lava tubes, some being of considerable size. In Portland a small group known as the Northwest Explorers also became interested in cave exploration and began inquiry about other lava tubes in the Mount Adams area. Members of the Washington Speleological Survey, one of the newest units of the Western Speleological Survey, also began exploration in this area. It was rumored that Forest Service Personnel and some outdoor-minded local individuals had encountered quite a number of new caverns in the Mount Adams region. In addition, several small caves had turned up as a result of a study by the State Department of Geology of all the limestone deposits in the state. Things were looking better for cavers.

The experiences of the first competent party to visit the Snoqualmie Pass caves gives a good idea of what can be anticipated of cave exploration in the northwest. Loaded with packs bulging with ladders,

rope and camera equipment, Tom Steinburn, Bob Clark, Bob Spring, Joan Webster and the writer made the long ascent on September 15, 1956, stopping first at Clark's Cave. With some difficulty, Bob Clark backed full length into the tiny cavern to pose for the party's photographers. These were historic photos for it was Bob's discovery of this tiny limestone cavern which led to the discovery of all the other caves in the immediate area.

After pacifying the photographers, the party continued along the hanging valley on the south side of Mount Snoqualmie and scrambled to the entrance of Prospector's Cave. Bob Spring took one look at the inches-wide slit of the opening and gave up all hope of getting more than the nose of his camera inside. As titular leader, I tried to force the entrance and found it less tight than it appeared. Most of the party succeeded in following, and we set about exploring each of a complex of narrow passages and crawlways, mapping each passage in detail. The result was the recording of the largest limestone cavern in western Washington, totaling approximately 200 feet of passages. But the rock was rotten and the roof crumbly near the rear. It was not at all a pretty cave.

At the upper end of the valley, Tom directed us towards the south and over the rim. Below us lay a tiny valley in the form of a trough between glacier-polished limestone outcrops with a number of sinkholes arranged in a row. At the bottom of one of the sinkholes was a narrow opening which slanted downward into a sizeable chamber. Red flowstone in an obscure chimney fostered the name "Red Cave." Fortunately, this particular cave opening was of sufficient breadth that Bob Spring could squeeze through and make up for lost time photographically. One of his photos later adorned the cover of the Seattle Times Pictorial.

At the south edge of this little amphitheatre, pitted with sinkholes and ribbed with long limestone outcrops, still another opening appeared—this cave soon to become known as "Danger Cave." Sliding beneath a chockstone and down a steep muddy slope, we arrived in a broad, low chamber which seemed stable in spite of the presence of considerable breakdown. At the far end was a pit. Two 35-foot lengths of rope ladder, lashed together and tied to a convenient rock, reached bottom with many feet to spare. Tom assumed a satisfactory belay position as I tied in. Then, just as I was about to reach for the ladder, someone called "Wait a minute!" As we clustered around the pit, we could see freshly gouged scratches on one of the jumbled

rocks at the top of the pit. It looked well wedged, but . . . we left. (A year later Tom Steinburn returned to Danger Cave. Ascertaining that the rocks had stablized, his explorations proved that the pit continued into the mountain and led to a stream passage, beyond which was a chamber of considerable size.) Although it has not been mapped in detail, it appears that Danger Cave may surpass nearby Prospector's Cave as the largest limestone cave in western Washington.

There was one more cavern to be visited. Not far away was Tom Steinburn's prize hole—opening into the top of a large chamber. We took turns being convinced, shining our flashlights into what seemed like an immense abyss, with the floor miles away. Rocks dropped, however, struck bottom in less than two seconds so we knew it was not beyond our grasp. "Hellhole Cave," we dubbed it.

Tom dragged up a log. Two sections of rope ladder were tied together and lashed to the log. As the ladder was lowered, we hoped it would reach the bottom. It did, with one rung to spare. Now to start the 68-foot descent on a flimsy, swinging ladder, entirely free of the walls of the cave. The narrowest part of the entrance was roughly triangular and about one foot wide on each side. Fortunately cavers are characteristically narrow of beam. I had to remove my pack and assume the position of minimum width—one arm at the side and the other arm pointed forward. I slipped through without much difficulty. The room widened around me as I climbed down the swaying ladder. The bottom was an ugly mass of great, unstable blocks of breakdown. I untied the nylon rope, called "Off belay," and gingerly started making my way around the room while I waited for Bob Spring to follow.

Time dragged on and on. Confused noises echoed from the top of the ladder. I guessed that Bob was having a tight squeeze. Then, finally, I could see the bulky body capped with a carbide light starting down the ladder. It was Tom, not Bob. Bob simply didn't fit. By the time Tom reached bottom it was so late that we had almost no time left for exploration. After emerging from the cave, we watched the sun cast pink hues on the eternal snows of distant Mount Rainier. Hurriedly we packed the gear and began the descent in dusk which soon gave way to nightfall. For cavers this is almost a normal situation and our headlamps served as well above the ground as below.

An excited scouting crew returned from Mount St. Helens with the news that they had paced the length of Ape Cave and thought

it was nearly three miles long. Recalling that the longest lava tube known in the United States was about 6500 feet in length, I calculated a seemingly safe margin and volunteered to eat every foot of it over two miles. Then we measured it. Can anyone supply a good recipe for 655 feet of boiled, baked or fried lava tube? Its length is 11,215 feet. Ape Cave holds the American record at present, but other lava tubes nearby have proven much more interesting and studies by members of the Western Speleological Survey are still in progress. New concepts of the origin and development of lava tubes are evolving from these studies. It is expected that the results soon will merit publication in scientific journals.

To the casual visitor, Lake Cave is probably the most interesting of the lava caves. For those who do not care to traverse some 3500 feet of rough lava to see the small underground lake, from which the cave derives its name, the patterns of successive lava flows just inside the entrance will be rewarding. In a side passage close to the entrance, a brick-red lava floor is particularly spectacular. Help is needed to prevent litter and vandalism in this passage of pristine beauty.

Near Mount Adams the visitor will find access to lava tubes easier than in the cave area south of Mount St. Helens. The main entrance of Ice Cave, mentioned earlier in this article, is in the middle of Ice Cave Forest Campground. The floor is ice throughout most of the year and there are massive ice columns at the lower end of the cave. New Cave's entrance is only a few feet off a main logging road in the same area. The eastern part of New Cave is smooth, easy walking, but its western section is rugged and difficult and only two persons are known to have reached its western end.

Dry Creek Cave is right on the edge of the old Randle-Trout Lake road but this low and narrow cave, though scientifically fascinating, is too uncomfortable for most persons accustomed to the freedom of the mountains—and of the larger lava tubes. The other lava tubes of the Mount Adams area supply great variety and the newly reorganized Cascade Grotto of the National Speleological Society will be glad to provide information to anyone who wishes to look at them, or to look for others, for we have plenty of rumors to trace. There yet remains the chance that YOU may discover a cave of major proportions near Mount Adams!

Today we know that other regions in Washington have an abundance of caves yet to be explored and studied. The Western Speleological Survey has such a backlog that logistic difficulties have forced us far behind the schedule which we originally established.

Perhaps some of the cream of the excitement is gone with the commercial development of Gardner Cave, our largest and most beautiful cave in limestone, but there is still much to be done, and we can use plenty of help. For example, in precisely the same area which Tom Steinburn had searched almost inch by inch, Maurice Magee found a new and sizeable cave in August, 1959. On the other end of the ledger we have made three unsuccessful trips to the limestone deposit near Soda Springs on the little Wenatchee River, vainly seeking a rumored cave and a fissure of which we have a photograph.

Many isolated outcrops of limestone occur in the northern Cascade Mountains which have not been searched for the possibility of caves. The help of every Mountaineer could be of great value in the search. Around Mount Adams and Mount St. Helens perhaps a brand new lava tube may be discovered, but in the Northern Cascades the geomorphology is such that this region might contain the deepest cave in the United States. It is my personal opinion that the chances of this are not as good as they are in Montana or New Mexico, but they seem much better than in Utah, which now has the deepest cave now known in the United States—Neff Canyon Cave, 1176 feet deep. Good hunting!

Caution is necessary when exploring a cave. Equipment includes a helmet, headlamp, spare flashlight, candle (or other third light source) as well as waterproof matches and additional gear which cannot be predicted in advance. A flashlight will be a part of the ten essentials. If finding a natural opening in limestone, or a new lava tube, one should take a look inside with the flashlight to be sure it goes somewhere. Look first at rocks over the entrance to see if there will still be an entrance for retreat. But even if there happens to be the cavers' minimum of four persons in the party and, by some miracle, the necessary gear is at hand, don't succumb to the lure of the unknown around the next corner before obtaining the services of someone who has had enough experience underground to be able to recognize subtle, potential danger. Please don't take the risk of being trapped inside a cave known to no one else. The Mountain Rescue Council is kept busy rescuing people from above ground. Let's not cause them trouble underground.

In the early days of American caving, there were so few experienced spelunkers that it was necessary to write out detailed suggestions for those who wished to take part in exploration of the underground. This was done to some extent on pages 38 to 41 of the 1951 issue of *The Mountaineer*. This article is still of considerable value

to persons interested in caving. Just as in mountaineering, however, the best way to learn safe techniques is by taking part in expeditions guided by and composed of competent cavers. The local group, consisting largely of Mountaineers, plans about one trip each month throughout the year. Anyone interested in spelunking (the sport) or speleology (the science) will be welcome. After all, someone is needed to carry the gear!

SKIS ON

UNTRACKED SLOPES

By JOHN MEULEMANS

Probably most skiers on the packed slopes experience, at one time or another, a secret yearning to try ski touring. There is a flavor of adventure to the idea of being free to roam among the snow-covered peaks, of exploring a world of cornices and wind-carved snow. It is a tantalizing thought that, far from the moguls and crowds, far from the tow-lines and memorized runs, there are vast and silent slopes of powder snow, untouched, sparkling, awaiting the ski tourer.

Well, then, what is needed to go touring? First of all, an adequate party. This is the starting point of any trip—to find people with whom to go. Where the tourer is going there will be no ski patrol, no toboggans, no first aid hut. Whatever resources he has will be those of his party. It behooves him, therefore, to be sure it is a competent party, well equipped, and with some knowledge of winter travel. Four is a minimum number.

Next comes the rucksack. It contains not only the things the tourer will probably need, but also the things he hopes he will not need. In addition to the usual ten essentials, there should be a repair kit of pliers and wire, screwdriver, and possibly an extra ski cable in the party. A sheet of light plastic weighs little, and might be invaluable if a bivouac should become necessary. To combat the wind and cold, the tourer should carry extra amounts of energy foods and warm clothing.

Flexible skis are possibly best for touring, and poles with large baskets are best in deep snow. If possible, there should be a small hole drilled in each end of one's skis to make it easier to fashion a primitive toboggan, if necessary. Old ski boots, which will bend slightly, are the most comfortable. If one is subject to blisters, he should tape the vulnerable places before starting. There are special bindings and attachments for touring, but it is possible to go touring without them. It does help, however, to be able to lift one's

heel when walking in the skis. Needless to say, the safety strap, to keep the skis from running away, is doubly important in touring.

Since a great share of touring consists in walking up hill, something is needed to keep the skis from slipping backwards. Climbers are most often used: strips of mohair or sealskin which attach to the bottoms of the skis. When the ski slides forward, the hairs on the climber slide along the snow. When the ski starts to slide backward, the hairs, rubbed the wrong way, stick into the snow and halt the slip. Climbers can be the source of much grief, and an extra climber should also be included in one's pack.

What techniques are essential for touring? One thing which is important is to be able to kick-turn, no small accomplishment on a steep, icy slope. Another essential is to be able to snow-plow. A third essential is to be able to side-slip, a technique most valuable for descending steep slopes.

A good way to get started touring is on tours sponsored by the Mountaineer Ski Tours committee. Here one may gain experience as well as meet others who are interested in touring. Whether on a Club tour or a private tour, the party should check with the Forest Service or Park Ranger before starting and after returning.

Experience develops caution. With experience a proper respect is gained for fog and wind, cold and darkness. They are mortal enemies. A bivouac on a summer trip may be a nuisance, but on a winter trip it could become a very grim affair. The ski tourer should always consider what might happen, how to prevent it from happening, and what to do if it should happen.

One cannot experience the thrill of touring without actually going out and trying it. There is a tingle of anticipation as one starts off on a clear, cold morning. It feels good to be trudging upwards and it feels good to be alive. Circulation quickens, the mind feels clear. Worries and frustrations drop behind, replaced by a feeling of freedom.

The long blue shadows across the slopes are fast disappearing, and soon the warmth of the sun will be felt. Upwards and upwards one plods, the landscape ever unfolding, a landscape blanketed with snow and glistening in the sunlight. There are swerving, graceful cornices; there are intricate sculpturings in the snow; there are encrustions of driven snow and ice on the exposed rock. It can be a wonderful world, this world of ski touring.

The ski tourer meets at first hand the harshness of winter, but he also partakes of its magic and mystery. His is the cold beauty of

a sunset from a high winter camp, the settling of darkness, the cries of the ptarmigan in the night. His are the pink tints on the peaks at sunrise.

Labors over, the tourer points his skis down. No other tracks mar these slopes, no other skis have broken this snow. The party races down the slope, whooping with joy. Few runs are savored so fully as those earned by one's own labors. Down across undulating open fields of snow, through the alpine meadow country, down into the timber and onto the trail, the tourer soon returns to the starting point. It is time to begin planning another trip into the wonderful world of ski touring.

The following tours are offered as suggestions:

Short trips—one day or less

Chinook Pass—Naches Peak and area; Governor's Ridge area

Snoqualmie Pass—Commonwealth Basin area; Denny Peak, Silver-Tinkham area

Stevens Pass area—Skylight Ridge, Lichtenberg Mountain, Jim Hill Mountains

White Pass—Hogback Mountain

Mt. Baker—Shuksan Arm, Artist's Point, Herman Saddle, Mt. Ann

Paradise—Camp Muir, Castle Bowl, Mazama Ridge, Van Trump Park, Camp Hazard (a long haul)

Hurricane Ridge area (Olympics)

Crystal Mountain area

Mt. Pilchuck

Longer trips

Summerland area (Mt. Rainier)

Goat Rocks area

Cashmere Crags area

Flapjack Lakes area (Olympics)

Ruth Mountain, Icy Peak, Eldorado Peak, Hidden Peak, Tomyhoi Peak

Spring trips: Mt. Baker, Mt. St. Helens, Steamboat Prow, Mt. Daniels, Monte Cristo area, Cascade Pass area.

THINGS TO CLIMB

WHEN MOUNTAINS

AREN'T WORTH IT

By HARVEY MANNING

When mountains aren't worth climbing some people slide rapidly up and down logged slopes covered with snow and black parkas and broken legs, while others lounge around the city improving their minds or destroying their livers. But the truebred climber of unmixed strain has to climb—or more specifically has to have "Something to Do"—all the time, whether he enjoys it or not.

In the first generations the problem was not intense, for most early climbers were either Anglican ministers, geologists or peasants. In the off season the first group was busy preaching, the second cracking open rocks and wondering how clams got there, the third milking goats and calculating the exchange rate between the pound and the franc.

The British University People who took over the sport couldn't find much to do in winter but Greek and Latin, which caused many highstrung young Englishmen to climb up the classroom walls. Two of G. W. Young's earliest publications were *The Roof-Climber's Guide to Trinity* and *Wall and Roof Climbing*. The present article dares not invite comparison with such scholarly presentations. Though the parasitical sport of undergraduate night climbing has followed mountaineering over the world, law is so sober that annals are mostly verbal, and graduates invariably develop selective memories once they have large mortgages or have been on a sponsored expedition or have gotten used to wearing a suit and a tie every day. The truth is impossible for an historian to record unless he personally participates in the trips and publishes his papers while still, himself, impoverished and disreputable and uncomfortable in a tie.

I cannot, therefore, honestly call this monograph good solid history, mainly derived as it is from secondary materials. In my youth

other vices than climbing occupied more than the available time and energy. However, as credentials for my presumption in setting down legends of the sport, there was a period when for various reasons I periodically traversed a certain University roof. It was mostly Class Three with a pitch or so of Four, but being usually alone I climbed entirely Two, and when in a hurry 1.8. The only serious difficulty I ever encountered on the route was an ambush below the first lead, a layback. I discoursed brilliantly on civil liberties for several minutes but conceded the argument to the sixgun leveled at my viscera, and changed my plea to extreme youth and an Eagle Scout Badge. Thereafter, since the route has two identical exits, I put my faith in speed and deception rather than the Bill of Rights.

In those days most of we campus juveniles were either 4-F or psycho discharges and as a group didn't feel well enough to be delinquent very often, but demobilization of the Armed Forces required a corresponding reinforcement of the neighborhood police force. One night a rookie officer climbed a tall ladder to find out why the Chimes were Chiming so late, and got enthusiastically kicked in the head by several youngsters engaged in rites of initiation into manhood, or a tribe, or something. None of the latter were injured, all having strong expensive shoes, so the investigation was perfunctory. But this and other instances of hostility hardened the police attitude, a poor preparation for the renascence of night climbing. Furthermore, the renascence began while Nixon nationally and Canwell regionally were awakening America to the peril subsequently dramatized by the late senator from Wisconsin. The climbers who conquered a French-chateau-like building left, as a summit register, a red woolen male undergarment. A student of journalism used the front page of his student newspaper for an editorial of the then fashionable "It *Can* Happen Here!" genera, in the course of which he described the summit banner as a "Red Cossack Jacket." The implication was that under cover of night there had been a raid by a full division of Red Cossacks (recruited from the student body and led by the faculty).

Reds were immediately stamped out, an effort in which our great University led the academic world—a fact that should give pause to those who call the Northwest a sluggish, semi-barbaric outpost of civilization. Some of the Reds went underground, and conspired to sabotage higher education by stealing examinations. Several climbers out for exercise on the chimneys and ledges of Building X, east of the campus pond, innocently became suspected as members of the

conspiracy. Having commenced the ascent early in the evening, far too early, they were still moving cautiously up a stern pitch below an open window when a group of trustworthy, brave, obedient, clean and helpful children came marching by, on the ground, and obeying their duty to help those in obvious peril called the authorities. The climbers were by their shifty eyes easily identified as criminals, and an absurd, though true, explanation of what they were doing on the walls considerably delayed their release on probation.

About this time the officially appointed state esthetes erected Building Z, and thereby set back Higher Education in the Northwest at least two years and the School of Architecture 300. One of the more inspirational effects was a row of sharp points around the lower edge of the roof. Similar sharp points, missionary church steeples, were a contributing factor to the Boxer Rebellion. Missionaries scoffed at the Chinese people for warning that supernatural beings would be discomfited, perhaps even damaged, when sitting down for rest. Fortunately there have been no complaints about the points from local supernatural quarters, and the points have had enthusiastic approval in the seagull set. Climbers have also been challenged by the noble conception of the State Artists. However, the party that made the first ascent was detected, and therefore could not, according to plan, paste on the outside wall a series of large paper footprints. During the desperate escape down dark interior corridors they dodged through a door into a cul de sac, where they were apprehended, several hours past midnight, with all their gear. The cul de sac chanced to be a ladies' restroom, a circumstance so humiliating every member of the party went straight.

Construction of the largest cantilevered roof west of the Arkansas River raised pulse rates throughout the climbing fraternity, and on the eve of a very important athletic contest which some 45,000 citizens were planning to attend, large banners were hung from the roof advertising the merits of a certain patent medicine. However, this was the age when local athletes complained of the pay cuts they took on turning professional. Total mobilization was ordered by state and civic authorities and the quarterbacks in the cigar stores downtown and despite girders thoughtfully greased the banners were removed before game time.

It must not be imagined that every night ascent is in some respect a fiasco. Most are so quietly routine there is scarcely a chimney on campus that has not been stemmed repeatedly. The best of the

stems happens to lie directly above police headquarters. Two climbers once spent the best part of the night remaining after 1 A. M. attempting the route. Unfortunately each time a lead was established a policeman came outdoors to take the air, and after waiting out each such leisurely stroll the leader of the moment was weakened and cramped and otherwise distressed as to be unable to complete the ascent.

Not all climbers drain off their neurotic energy doing roofs. Intricate routes have been established on George Washington, the flagpole, a range of Greek pillars; macabre ascents have been completed in a nearby memorial park. The trees of the region offer a variety of opportunities. Deciduous species are generally best for balance and counterforce, conifers for engineering. The longest Class Six of my own career (I belaying, Tom Miller leading) was a Douglas fir near Little Si which required one hundred feet of two-rope hardware and stirrup technique to reach the dead branches, another fifteen feet of mixed Four and Five to the live growth, beyond which the route was mostly 3.2, excepting the last pitch, a full Seven. When this tree is hauled to a mill oldtimers will think the Wobblies are back in the woods; vertical pitons drive into wood wonderfully well but are impossible to remove.

There are other things to do besides climbing. Building Y which lies west of the campus pond, is generally inhabited by scores of climbers, but for reasons not fully understood their efforts have mostly gone into other channels. There are speleologists who have traveled almost all the way, underground, from the Stadium to the Northlake. During the Great Earthquake of 1949, when elsewhere in Seattle people were dodging cornices or crouching under desks, and when it seemed possible that certain portions of Building Y might explode, 78 per cent of the inhabitants rushed to the roofs to gain the maximum sensation of sway. Explosions are, for this sort of climber, as good as climbing. The corridor floors are frequently painted with compounds that blow up when stepped on, and firecrackers are always worthwhile. Each and every blast brings people bursting into the halls armed with fire extinguishers. In such an atmosphere many climbers feel the off season is most profitably spent investigating the uses of wash bottles, compressed air, cork-hole borers, dry ice in a detergent solution, and the many other unusual facilities for startling effects. Even a paper bag puffed full of cigarette smoke and thrown with an air of excitement into a laboratory can cause considerable agitation, particularly if there are

on the benches open beakers of ethyl ether and other such volatile and explosive liquids. A certain light metal that reacts in a spectacular and dangerous manner with water has long been favored by bombers. One climber was rewarded on a dark winter evening after previous cautious and unsatisfactory experiments by a flame of burning hydrogen exploding forty feet above the campus pond, and by a cascade of molten metal all around the circular shores. The resident mallards, who prior to the explosion had been quacking and flapping toward the splash that seemed a probable morsel of food, vanished from those waters and did not return for two weeks. The climber vanished too when he saw molten metal raining down on an automobile with a blinking red light. (For a comparably surprising fallout see *Voyage of the Lucky Dragon.*)

Climbers tend to wander, always imagining there are better ascents elsewhere. Thus they have often left the University Range. Not far away are some bridges, and rappels have been made, sometimes by prearrangement into waiting boats, but often as not into the arms of the police. It happened one time, long ago, that a little old lady, entirely innocent of any desire for adventure, was trapped by her slow pace on the rising span of one of these bridges, and afterward collected a very large sum from the city, what with having dropped her sack of groceries and all. There was, predictably, a continuing effort to smuggle a little old lady onto one of the bridges. The effort was thwarted partly by the increased vigilance of bridge tenders, partly from the difficulty of finding a little old lady willing to ride the bridge up and down, with or without a sack of groceries.

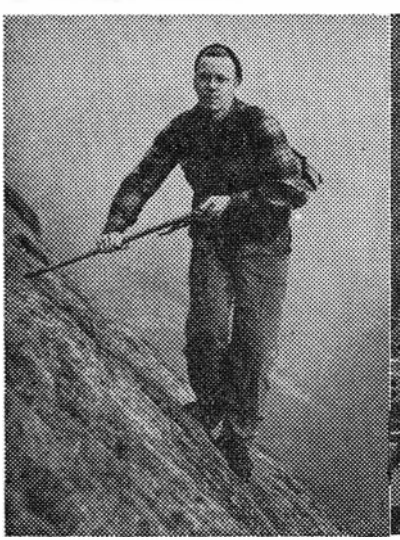
A bit farther afield is a water tower that has enjoyed steady popularity over the years, and recently was in the news when a scale model Sputnik appeared overnight on its roof, to the consternation of right-minded Americans everywhere. The municipal menagerie has superior facilities, but those who have done the routes warn that some of the bears are nervous. Not many years ago there wasn't a local climber but cut his teeth on a glacial erratic in northeast Seattle. When this tradition hallowed granite was surrounded by hostile bulldozers, carpenters and landscape gardeners, and then by real estate agents and mortgages, an enraged climbing party went one night and painted the erratic yellow with red polka dots. Their gesture of defiance had a sorry sequel; the residents are such they prefer a painted rock and nowadays the boulder that was the nursery of modern rock climbing in the Northwest is regularly repainted

whenever the tricouni-scarred, tennis-shoe polished granite shows through.

The most neglected climbing terrain in the metropolitan area is that provided by the shoreline railroad between Seattle and Everett. The traverses on these steep solid blocks can be recommended especially at high tide in a winter westerly; good sound training for summer rock climbing in the Northwest, and on many pitches there is a water belay that makes the rope unnecessary for those who know how to swim.

* * *

An activity at least as old as Petrarch lies intermediate between roofing and mountaineering, and is sometimes called "blobbing." It was in 1950 this sport came to my attention, after having attempted skiing and found it a terribly insensitive way to spend the winter. The blobs in Tumwater Canyon were the scenes of early experiments, though my companions of those days tell me they now prefer the Peshastin Pinnacles, not only for the charming approach under apple blossoms, but because there are entertaining pitches inside some of the sedimentary towers. However, it's a long way to the Canyon and the Peshastin, and there is no reasonable approach in winter by which one can entirely avoid the sight of skiers sliding up and down logged slopes.



The Author Ascending Fuller Mountain

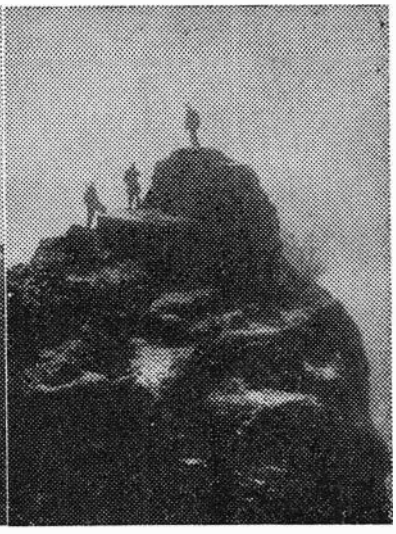
Author and Friends arrive at Climbing Centre by Rail

One dark and drenched winter Sunday a party of us climbers feeling dismal with nothing to do made a significant forward surge in the history of blobbing when we discovered the North Bend Blobs, dominated by familiar Little Si. On that legendary day in early 1951 Erick Karlsson, Tom Miller and I completed the ascents of Fuller Mountain and Herpicide Spire and thus became the first human beings qualified to wear the Blob Peak Pin. Much later Theodore R. Beck, Charles L. Allyn and Peter K. Schoening were invested with the full honors of the decoration. Unlike pins that bring a climber mere adoration the Blob Peak Pin can be used to repair packboards and hold up pants.

Despite prolonged search no other blob groups have been found that come up to the North Bend standards. The Issaquah group is fairly good, but there are Nikes atop Cougar (the Army has Faith in Nikes, but a 1200-foot headstart can't do any harm), microwave relay towers atop Squak, and Tiger, also called Issaquah, is beyond the size-limits for a blob. The Enumclaw Blobs have too many trees on the summits, as does Little Persis. Once we tried to climb Little Russian Butte, but the trees thereabouts are so tall we couldn't find it.

In 1952 our attention returned to North Bend and Rattlesnake Ledge. (A long time ago a farmer trucked home a load of hay from Ellensburg, and out of the hay crept a frightened rattlesnake which achieved immortality in the several seconds between its emergence from the hay and its impalement on pitchforks; this Archtype-Hero is commemorated not only by the Ledge but by a Ridge, a Lake and a Creek.) Our first thrust toward Rattlesnake Ledge was blunted, down in the Watershed Christmas Trees, by a range of "towlders" (see Lewis Carroll via Tom Miller: a thing both slimy and lithe is "slithy"; a thing that is both a tower and a boulder is a "towlder.") Every summit was so obviously a first that what with tossing codlines for prussik ascents and retreating into trogs during cloudbursts we never got to the Ledge. However, intrigued by the sight of a cannonhole in the Ledge next winter we staged a full-scale assault. Since our large party included members with experience in the Yukon and the Bugaboos, and one who had been on the first ascent of Shiprock, not to forget a president of FWOC and my wife, who led an early ascent of Tumwater Tower and has also climbed Herpicide, we were not stopped by barbed wire fences nor towlders, much less by hipdeep bracken and sopping wet alder, but marched relentlessly to the top of the Ledge. Squalls of driven rain and snow made it un-

The Author's Friends Climbing a Towlder



Author's Party on Summit of North Peak Rattlesnake Ledge

wise to attempt the higher peak of nearby Rattlesnake Ridge, but we were able to explore the intricate caverns of the cannonhole, and indeed had our lunch near the muzzle.

In the winter of 1951 a rumor reached Pete Schoening of a range of pinnacles east of Enumclaw. It seemed unlikely, but with nothing else to do, Pete, Jim Henry, Vic Josendal, Tom Miller, Erick Karlsson, my wife Betty and I went out for a look. After some trouble finding a rock solid enough to unlock the gate we gained easy access to the foot of the Enumclaw Crags.*

Along with a half dozen minor summits, Big Claw and Little Claw Crags were done by several routes ranging from Class 2.6 to 4.1. North Peak Crag, which has a remarkable resemblance to the first pitch on the dog route between the Bowl and Teaball Meadow, was perhaps the best ascent, though only 3.1416. Threatening clouds, good bonfire, and the weird psychological conditions prevailing caused the party to retreat while many desirable routes remained virgin. So far as can be determined they still are. Pity, for aside from the challenging rock the view from Claw Crag is simply

*This and subsequent names are awaiting formal approval by the Board of Geographic Names, which refuses to answer our letters.

grand. The panorama of ridge upon ridge of stumps, snags, erosion gullies and fireweed is not marred, as it is along the highway, by billboards identifying this magnificent ruin as a "tree farm."

* * *

During my term as Chairman of the Climbing Committee other alternatives to climbing developed. Because of my exalted position in the hierarchy I was offered, by telephone, a share in an enterprise involving the summit of Mount Adams. "Is it the sulphur you're after?" asked I.

"Not saying *what* we're after," says he.

"Oh, uranium," says I.

Silence.

Says I, "By the way, who are you?"

Says he, "Not saying." The receiver clicked, and that was the end of Mount Adams. Much more interesting was a telephone call from the intimate friend of a prospector who had wandered into a cave on Peak X, found the floor of the cave littered with wire gold in quartz, and staggered out after an hour loaded with $20,000 in gold. The prospector's health was ruined by hauling the $20,000 to civilization and he died almost immediately. My informant had seen a specimen of the wire gold, and had visited Peak X and found what he was certain was the cave that had yielded the $20,000. The floor was swept clean, but he had seen other caves, similar in structure. They were on steep cliffs and he was willing to cut me in only because "it'll take ropes to get to them caves." That winter a large and motley expedition was mounted, some of us interested mainly in the Wire Gold Caves, some hedging the bet with a desire to climb Peak X, and one heavily-armed member who thought this was a good chance to get in the fall harvest of venison. A series of terrible storms washed out the expedition. The members scattered, and I lost the telephone number of my informant. But since then the Brewing and Goldfinding corporation of Issaquah and Las Vegas has explored Peak X, and certain of the caves. No wire gold yet, no gold of any kind whatsoever, but some very interesting facts about glacial history have turned up, and there are numerous other caves still to be investigated. Stock in the corporation is solicited only by the prospectus.

* * *

The story is not complete without description of the "Misery Trip," one step beyond blobbing toward true climbing, but still a journey that has no intention of making a valuable summit, aiming

instead at the secret essence of climbing: flagellation of the flesh. Long after I grew into a sunny day hiker, too old for misery, it was gratifying to find at least one of the new generation independently discovering for himself the concept of the misery trip.

On a single winter day of 1958 Don Claunch *walked* from near the center of Seattle to the summit of Mount Si, and almost back to the Raging River before lying down in wet roadside willows to sleep. The same winter he walked from Seattle to the 700-foot hut on Cougar Mountain; despite a late afternoon start he arrived in time for supper.

Ten years earlier, in November of 1949, Theodore Beck and I formulated for ourselves this same concept. Weary of explosions, painted erratics, steam tunnels, we went out every Sunday seeking misery, but things kept going wrong and all we got were summits, one or more every time we left the city. Rather dispirited, Thanksgiving Friday we set out for Snow Lake accompanied by a large group of friends who were impressed by our spectacular November climbing record and took us at our word when we said our objective was Roosevelt. Rain at the road turned to steady wet snow above Source Lake, and as our friends grew sad we grew gay and the party lost faith altogether observing our competition as to who could wade through the deepest slush-filled pool. When we suggested wading the outlet stream of Snow Lake to "get" Roosevelt our friends set

Author Recounting Adventure to Neophyte Climber

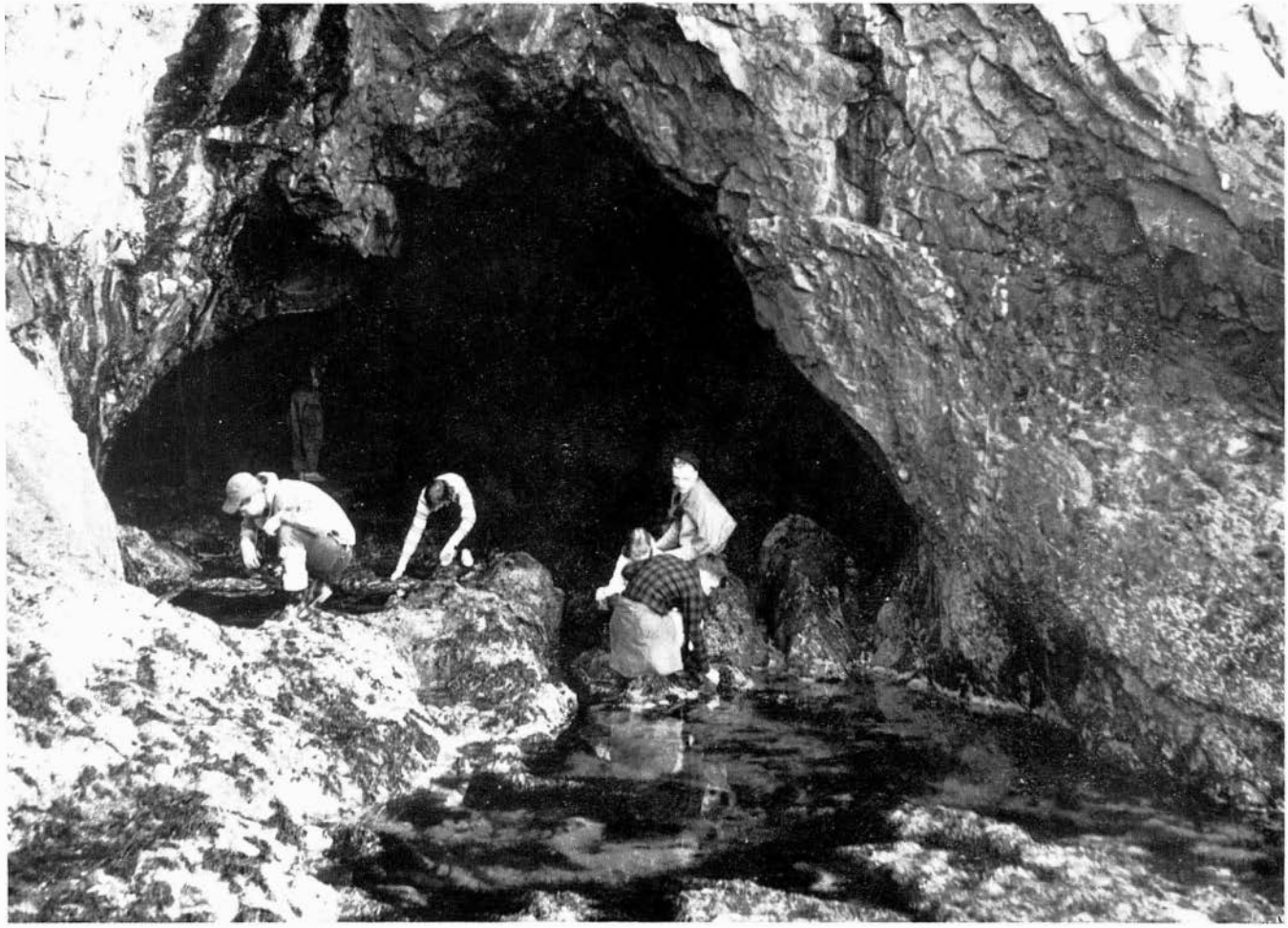
out for the cars in full revolt. Beck won the competition, and I, the loser, have a photograph of him standing nearly chin deep in slush, waving an ax over his head, giving a big smile for the folks back home.

Having isolated the essence of the sport, T. R. Beck and I gradually found it possible to give up summits altogether; as the founding members of C. A. Beck and I are always ready to help any poor climber who wants to quit, but needs the assistance of a Larger Power, such as Beck or me. The very next September we hiked into Bedal Creek Basin on a weekend that held promise of nothing less than a full hurricane. Lest the drinking water be muddy in such a tempest we carried bottled beverages. One of the bottles melted in the campfire to a curious, twisted shape that seemed to us symbolic of something. This staggering bottle, later filled with a solid to prevent shattering, labeled "The Paraffine that made Bagley Infamous," was—before the advent of a reform movement—a steady inspiration to a decade of research engineers, some of whom are now trying to get to the Moon.

* * *

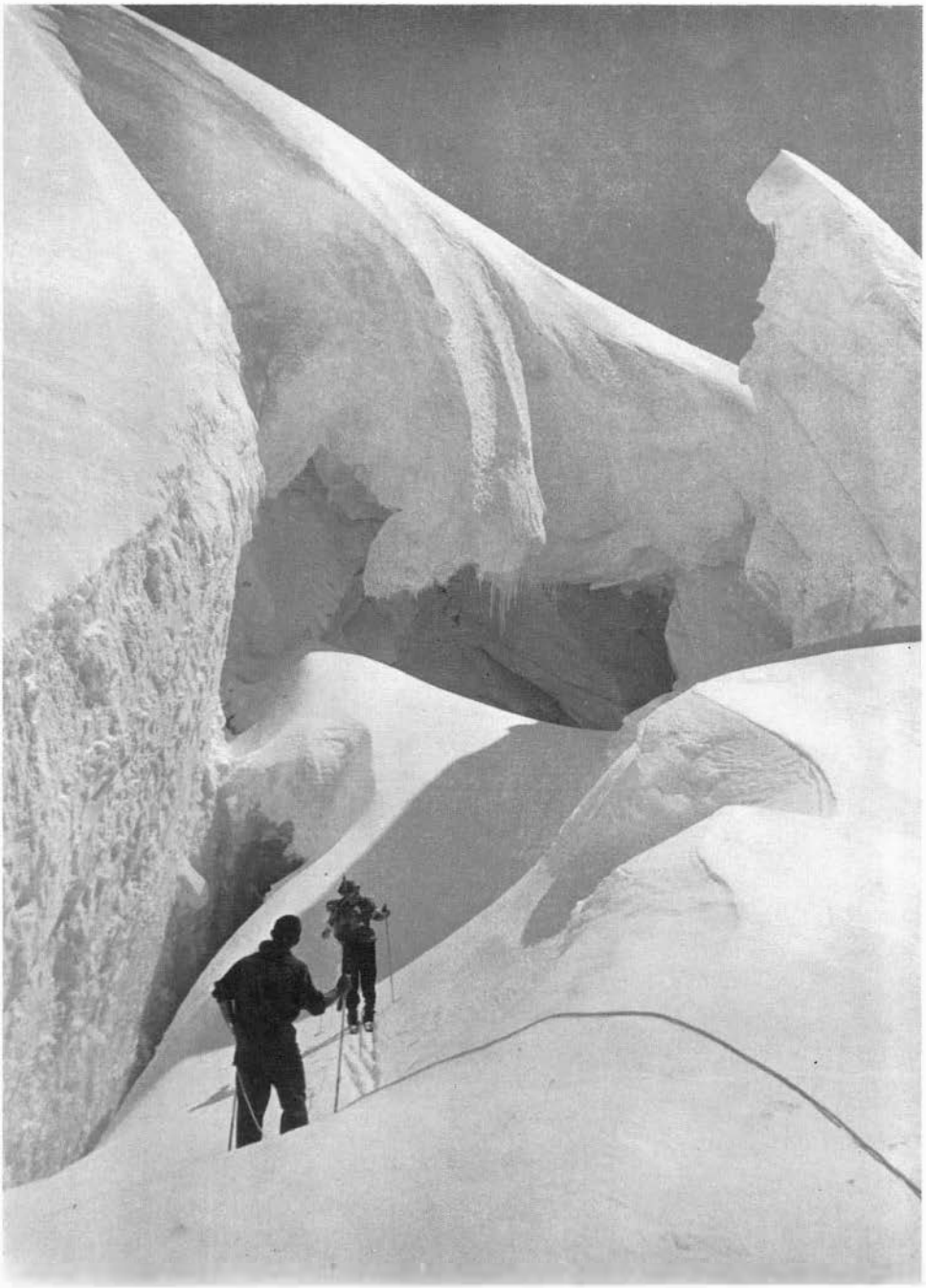
If you gentle readers retain from my history only one lesson I hope it is this: a Climber is One who needs constantly Something to Do; almost Anything can be worth Doing; a purebred Climber does not need Mountains, which really are beside the Point.

On Snowshoes and Skis—Near Ingalls Creek *Gene Prater*



Sea Cave North of Cape Alava — *Franz Mohling*

Mazama Ridge, Mt. Rainier. Tatoosh Range in Background. *Stella Degenhardt*

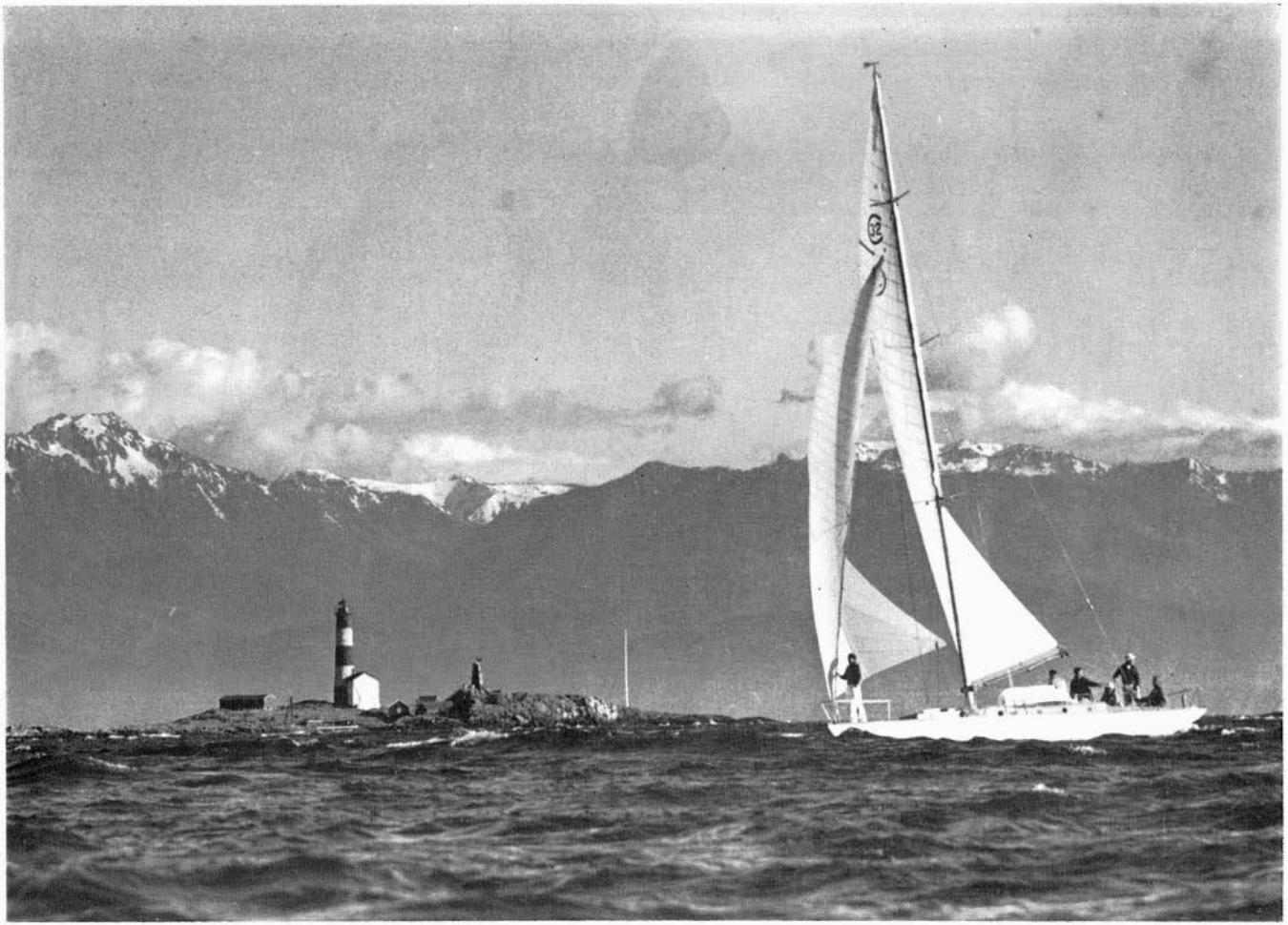


Boston Glacier Crevasse, Cascade Pass Area *Stella Degenhardt*

Foldboating on Cowlitz River *Bob and Ira Spring*

Ski Touring Country, Mt. Seymour, B. C.

Princess Louisa Inlet, Coast Range, B. C.



Sailing to the Mountains

SAILING TO

THE MOUNTAINS

By JAMES M. LEA

For those who live in the Puget Sound Country, both sailing and mountaineering are close at hand. It is possible to combine and enjoy both of these sports on the same trip by sailing to, or through, the mountains.

When a trip of this type is anticipated in the inland waters of Washington or British Columbia, the hiking or climbing can be as strenuous or easy as one desires but the sailing will have to be taken the way it comes. Although the daily mileage will be nothing to brag about, the combination of strenuous activity and a leisurely sailboat trip will give real satisfaction.

For strenuous trips, a climb up Mount Waddington (13,260 feet) will tax the veteran. Mount Waddington can be reached by sailing through the rugged beauty of Knight Inlet. At the head of the inlet, local guide Jim Stanton will take you in his river boat to where the trek starts.

Considerably less strenuous, but interesting, is the climbing behind Princess Louisa Inlet, a favorite boating harbor on Jervis Inlet. There is fairly easy access to the 5,000-foot ridges and higher peaks which surround the Inlet.

Mount Albert (8,350 feet) is accessible from Hamilton's Logging Camp, which is just north of the island at the entrance to Princess Louisa Inlet. A careful look at a good detailed map of the inland waterways will suggest hundreds of other possibilities.

This country is still very sparsely settled, and almost everywhere there are hills which will reward the hiker with beautiful views. Young Hill above the British camp at Garrison Bay on San Juan Island is only 680 feet high, but it overlooks the interesting harbor area at the north end of the island and is surrounded by the other San Juan and Gulf islands.

In using a sailboat to travel up the inundated valleys between the mountains the explorers take their cozy base camp with them wherever

they go. Why not go by cruiser? That's a possibility, but when going by sailboat, just getting there is a sport. Being at the mercy of the tides and weather makes a trip exciting to the sailor and contributes to the feeling of accomplishment when he gets where he wants to go.

Then, there is always the possibility of not getting just where he planned, but discovering instead an interesting and unexpected place. This gives a zest to life and the joy of experiencing serendipity.

When sailing, the tempo is controlled by the weather. For a few hours, if winds are light, it may be very relaxing. It is expected that the crew should lie around and soak up the sunshine and there is no feeling of guilt about being lazy. Moments later, the boat may heel over in a fresh breeze and the whole tempo changes. The crew scrambles to make the boat shipshape so gear won't roll overboard or into a heap on the other side of the boat. They trim the sails to get the most out of the wind and the blood courses faster through their veins.

Sailing can be exasperating for a person who wants to "get places." Most sail boats these days, however, have auxiliary engines which permit keeping a reasonable schedule.

When just out to enjoy the trip, calm weather is a signal to go for a swim, hike, dig clams, fish, beachcomb or skin dive. The waters of the San Juan Islands are particularly beautiful for skin diving. Then, too, a good mess of clams or fish will supply a delicious, economical meal in a superb scenic setting.

Salmon are difficult to catch except at the right spots and at the right time, but they may be obtained from commercial fishermen or weighing stations. Clams, on the other hand, can be found in plentiful supply during low tides on most gravel or sand beaches. Cod is surprisingly good when boiled and can be caught quite easily along rocky shores or shoals on any tide.

When a group goes to the mountains by sailboat, it isn't necessary to be limited to the ten essentials and dried food. It is very little extra effort to take a good supply of fresh meat, fruit and vegetables. Canned goods can be conveniently stored in the bilge where their weight won't upset the balance of the boat. It's a good idea to use plastic bags for food that would be damaged by bilgewater. Also, confusion may be avoided if canned foods are marked with a grease pencil before they lose their labels. By planning the

stops it will be possible to buy fresh food supplies and replenish drinking water every few days.

Usually there is too much to do to spend much time reading, but books are good to have along for reference—perhaps to identify the birds or animals which may be strange to the mountain-goer. Then, while sailing to the mountains there's an incentive to study books on sailing, astronomy, meteorology or climbing.

Most sailors don't want to travel after dark. As dinner time approaches the charts will be scoured for a good spot to anchor for the night. If the weather is warm and pleasant, perhaps dinner will be cooked ashore, or at least a campfire enjoyed after dinner. If the weather is rough, there's the protection of the boat's cabin. The lapping of the water and the rocking of the boat will add the final touch to the day.

During a strong wind, sailing is both exciting and good exercise. It is not sustained exercise, as is climbing; but when tacking up a narrow passage into the bite of the wind, arms and hands can ache from trimming the sheets (adjusting the sails). For exposure, or practicing balance, try changing jibs or reefing the mailsail on a blowing, bouncing sea!

Sailing also exercises route finding ability. On the water as well as in the mountains it is difficult to interpret the chart with respect to the terrain. Sometimes mirages add to the confusion. One of the most common mirages makes the shoreline appear as a cliff.

When route finding and using the wind for motive power it is useful to be a weather prophet, to be able to predict changes in the wind direction. In sailing, a straight course is not always the shortest. On a recent trip, as we were heading from Sucia island to Anacortes, a distance of twenty-five miles, we started out tacking directly into a very strong East-South-East wind and figured we would have a more favorable wind direction when we turned south. Instead, the wind kept getting stronger and changed direction at the same rate as our course changed and we were forced to tack almost all the way. Besides the battering of gale winds and big waves, the boat was almost constantly swept by spray torn from the tops of the waves. This is an exciting experience to look back upon, and we had a great feeling of accomplishment, but we could have taken a much easier route. Had we realized that when a storm moves directly in from the west the shift in wind direction will be clockwise, we would have taken the longer course around Orcas

Island and have had favorable winds, reaching instead of tacking, most of the way. Besides being faster, the trip would have been considerably dryer.

For anyone who wants to try this kind of a vacation all that is needed is a sailboat and a congenial and willing crew. Some boats are available for charter from private owners for about thirty-five dollars per day. At the start of the trip there should probably be two crew members who know how to sail. With a little effort others in the party can be trained to do most of the jobs in a couple of days. Mountaineers, experienced with ropes, miserable weather and unsure footing, make excellent sailors.

Following are some helpful hints intended to make a sailboat trip to the mountains more pleasant.

Have tide and current charts and 1/80,000 spare or 1/125,000 scale navigation charts. Less detailed charts will have insufficient information for a sailboat.

Chapman's *Piloting, Seamanship and Small Boat Handling* has a good summary on marine weather prediction, rules of the road and other useful information.

Try to plan the trip to travel with the tide. Sailing speeds on the average are not much faster than the tides.

Try to schedule crossing of large bodies of water, such as the Strait of Juan de Fuca, for early morning when the seas are normally most quiet. The water is usually roughest over shoal areas.

Have "man overboard" drills by recovering a floating object from the water. The important thing to do first is to throw out a life preserver. Jibing is almost always the quickest way to reach a man overboard.

Take wool clothing for wet weather. It may be cold and wet any month of the year in these regions. A skin diving suit makes a good exposure suit and life jacket, and may be useful for working on deck or rigging in severe weather.

Check in at a Canadian port of entry before going ashore elsewhere in Canada. They will want to know what of value is being taken into Canada. Convenient ports of entry are Sidney, South Pender (in summer), Nanaimo, Chemainus, Point Roberts and Victoria.

Check out of a Canadian port of entry when leaving to verify that no valuables have been sold in Canada.

Check into a United States port of entry at Roche Harbor, Friday Harbor, Anacortes, Point Roberts or Bellingham upon returning to the states. They'll want to know place of birth, age (legal will do!), and be furnished some proof of citizenship such as voting registration card or birth certificate of everyone on board. They will also want a list of articles of value bought in Canada.

For open water cruising a good auxiliary engine is almost a necessity and a spare anchor for emergencies is good insurance.

In choosing an anchorage for an extended period, or overnight, bear in mind that there will be a change in tides and there may be a change in wind direction and velocity, sometimes extreme. Be sure of water depth and anchor holding power.

Application of these hints, in addition to basic sailing knowledge, should make it possible for amateurs to enjoy sailing to the mountains. The combination sailing and mountaineering trip with its variety of pace, strenuous physical exercise interspersed with leisure, usually means that the travelers arrive home, reluctant to have the trip ended but refreshed and eager for new activity the next day.

SNOWSHOE

TAILS

By EVERETT LASHER

Winter webbing opens up a completely new sport for those who pine to get out of the house every month of the year. The peaks are still there, the summits still beckon: all it takes is a restless soul—one willing to take Nature on her own terms. Those few days of clear sky and crisp air that can be part of winter climbing are well worth the gamble. Think what adventures could be encountered by a winter jaunt into the highlands!

Because the technique is simple, a snowshoer with only two trips under his belt will tell you that he has mastered the art completely and can handle almost any winter terrain. All a snowshoer needs to experience the glories and the miseries of the sport are snowshoes, and ski poles or an ice ax to aid balance. Snowshoes most practical for the Pacific Northwest are the Alaska Runners (trail) and the Cross Country.

Safe snowshoeing terrain as detailed in *The Mountaineer* (1955) is generally area free from avalanches. Most areas around Snoqualmie Pass are relatively safe for snowshoeing.

What is it that unites snowshoers into tight little clans not unlike roped climbers? Perhaps a few snowshoe "tails" will give an insight into the webfooted group.

Many snowshoers have had the experience of climbing in a whiteout. This is a time when there is no up, no down: the snow and the sky become as one. Dark objects stand out: trees, cliffs, open streams all appear as black—black on white without dimension. Blizzards or heavily overcast weather often give one this feeling of no depth.

A fellow snowshoer and I hiked out of the Source Creek Basin during a whiteout last winter. At one time during this trip we were both watching the route ahead, looking for a place to cross the creek. Suddenly I fell flat. My companion was about to laugh heartily when he joined me in the snow. We had both stepped off a small bank about three feet high running diagonally across our route. Even my

fall did not help him to notice the sudden variation in the terrain.

At times this lack of depth perception in a whiteout can be downright spooky. During a search operation on the slopes of Mt. Rainier a voice hailed us as we traveled downslope. Looking UP, ahead we saw a man who appeared to be floating in space. When he identified himself, we thought one of the members of the rescue team had perished in the storm and we were witnessing the departure of his soul. Continuing down into the void, we found the slope leveled and then rose. All was solved: the man was not about to depart but instead was standing patiently on top of a small knoll.

The sport of snowshoeing is not all fun and thrills. There is one danger conducive to nightmares in the strongest. The skier dreams of the ski run turning into a maze of stumps; the climber, of a handhold loosening without warning; the hiker, of the moss-covered log over a raging torrent; and the foldboater, of starting into rapids without a paddle. The snowshoer dreams of "idiot-makers." This idiom was developed from experience—just as loggers have their widow-makers (dead snags dropping to earth without warning) so snow travelers have their idiot-makers. Though not lethal, these "makers" are numerous and most likely to strike the unwary. When the sun shines and the air is warm it is best to head out of the woods into the open—for it is then that the idiot-makers strike. Warm air and sunlight soften the wet, compact snow hanging on the boughs. First the snow begins to drip and then the weight is overpowering, and it is ready to do its dirty work. As it falls, the snow invariably aims for the back of the unsuspecting traveler's neck. The large globs may indeed have the effect of "idiot-making" and the small ones are at least disconcerting.

Most snowshoers find use for a snowcave at one time or another. A foot of snow makes an excellent windbreak, as well as acting as an insulator. The ideal snowcave is dug into a steep slope, making snow removal easier. A light aluminum snow shovel is almost a must, and several hours are needed to do the job. The center of the cave should be high enough for one to stand upright, and the ceiling should be domed to keep water from dripping. A shelf around the edges is used for sleeping and sitting. The entrance should be lower than the floor to trap heat and yet provide ventilation.

Not all snowcaves are ideal. One New Year's four of us were on the south side of Mt. Adams at timberline in a blizzard. Trees were scarce so we picked a steep rise in the crest of a ridge and started to dig our camp, which was to be home for two nights. The wind was

bitterly cold and everyone fought for the privilege of working with the shovel—the only source of heat available. The going was good until we hit a layer of frozen, resistant snow which forced us to slant the floor drastically. Finally the four of us were able to crowd into the low-vaulted cavern. The bitter cold prevented anyone from sleeping much that night. The second night we slept a little thanks only to our increased fatigue. The temperature was 20° below, so we took our frozen canteens to bed with us in the hope they would thaw by morning.

Both canteens and climbers thawed during the night. After a breakfast in the bag, we crawled out of our nest in the snow to witness a dazzling sunrise.

Snowshoers have a feeling akin to pity toward the housebound climber sitting in front of a warm fire all winter dreaming of the coming season. He misses so much. Consider avalanches for example. By the time the average climber gets into the hills all the large avalanches have occurred and he can only catch a vicarious thrill in crossing their grotesque runout fans while wending his way up-valley.

In the winter the conditions are quite different. One day while climbing above Camp Mason we had a harrowing experience. The crust was so hard our axes could hardly penetrate. I had just made an ice ax arrest when suddenly a change took place: the whole slope began to move. What had been a hard crusted windslab turned into a moving mass of fluffy snow forming a snow cloud, cutting visibility to a few feet. Terrific effort was required just to keep above the surface of the slope—it was like stepping into a pit of "quick snow." Snow filled the air, and I was part of a small grey world a few feet in radius. By lying on my back and using a "back-stroke" I was able to remain floating on the surface. At first there was no feeling of actual motion—the whole slope had gone and I could not orient myself from within the snow cloud. As suddenly as motion had left, it appeared again. The open slopes had been left behind and blackish objects began to streak by. These were the harbingers of timberline. They were big trees and sturdy ones, for they had withstood the force of many avalanches and would have treated me unkindly had I bumped into one. Their small number, however, made them a minor danger. By now the front runners of the avalanche had reached the heavier timber and slowed down. As the front slowed, the larger mass behind it piled up and flowed over it, continuing into the woods. Many side currents and eddies were set into motion. One section

would stop dead, only to have a side current sweep around an obstacle and bury it under many feet of compacted snow. Gradually the fluffy mass began to solidify. As it hardened, the remaining motion broke its surface into chunks of varying sizes.

These dying gasps of the avalanche provide the real danger. So often what has been the surface snow becomes buried at the end. As I was sliding, I remember my left foot stopping, catapulting me forward onto my face. The next thing I knew all motion had stopped and I was covered by heavy snow. I had the feeling of being face down with someone sitting on me. Both arms were stretched over my head and for a moment I thought I couldn't move. Soon I found that my left leg was free and for a time I kicked it wildly back and forth. Everything was black and I was trying in vain to breath. After a moment of complete panic, I discovered that I could move my left arm. With a free arm I was sure I could dig myself to air.

Digging in a fresh avalanche, especially with a mittened hand was, I found, far from easy. In fact, it was impossible. After some fancy arm wriggling, I got the Korean mitten off my hand and started to dig with my fingers. Progress in digging a tunnel to my face was slow, but finally I was able to stick a finger into my mouth. That was the last thing I remember.

Have you ever wondered what would be the best way to travel onto the Happy Hunting Ground where all good climbers go? Let me recommend an avalanche. I passed out peacefully with no advance warning. Had I not been dug out a short time later, I would probably have been there yet and someone else would have had to pass on his snowshoe "tails."

WEATHERLESS WORLD

By JAMES W. WHITTAKER

Going underwater is not new to man. A number of people have made a living working beneath the sea as sponge and pearl divers. During warfare many victories have been attributed to underwater demolition but only recently has diving become a sport in which millions participate. The Washington State Council of Diving Clubs has a membership of twenty-five clubs or a total of over five hundred individual divers that are affiliated to promote the sport of diving.

There is a reason for this growth. With the development of insulation to maintain body heat in extreme cold and the invention of self contained underwater breathing units which enable man to stay underwater as a free agent for an hour or longer, the sport has grown to fantastic proportions. The new equipment has opened up a "Silent World" of adventure called the Earth's Last Frontier. Here is found another source to satisfy man's desire to explore the unknown, another tool to mold man and educate him. It is a challenge; but man is always at his best when reaching for something just beyond his grasp, whether it is a little bit higher, a little bit farther or a little bit deeper.

Now we have a sport that knows no season, for water is always there. At last we have a sport that knows no inclement weather. Thirty feet under the surface of the sea there are no worries about wind and the rain. For the climber who is forced off the rock cliffs and ice fields by bad weather and for the skier who does not have to think too hard to count the poor skiing days at the Pass last winter, here is an ideal sport. The next time it is necessary to cancel a trip in the mountains because of a 60-mile gale with heavy rain, simply drive over to some beach and realize that only 20 feet down there is a fascinating silent world, full of life. The only noise is the hiss and bubble of the tank regulator, as the mysteries of the calm deep are explored. The diver feels sorry for anyone caught out in the weather; sorry for everyone, that is, except himself. He will

be living his dreams of flying as he soars and glides above cliffs and canyons as weightless as a feather. The Mountaineer diver cannot help but marvel as he floats effortlessly along a 150-foot cliff, looking for fish in the chimneys, under the overhangs, and pushing out without benefit of rope to float past jam holds and steep slab, to settle gracefully at the bottom of the rock wall. Seattle is one of the rare areas where in the evening at 10,000 feet at Camp Muir thoughts can go back to the 160-foot dive below sea level experienced that morning.

The Pacific Northwest, and the Puget Sound country in particular, is one of the greatest diving areas in the United States. With its countless miles of salt water shore line, reefs and islands, it offers limitless underwater geography never before seen by man. The waters of the Northwest swarm with millions of microscopic organisms called plankton, which are often so plentiful they reduce underwater visibility to less than 5 feet. Generally speaking, visibility is 40 to 50 feet.) But these same organisms attract other sea creatures and, consequently, here is the richest habitat of marine life in the United States.

A good amount of diving across the country is done in lakes, and the lakes of this area offer interesting diving. However, the comparative lack of marine life in lakes makes them much less interesting than the ocean or bays. In addition, our coastlines, harbors and channels are studded with wrecks dating back to man's first visit to the Northwest. Over four hundred charted wrecks are known in the Puget Sound area. The exact value of most of these has not been determined but they, too, offer adventure to the diver.

The "Warhawk" is only one of these wrecks. This three-masted schooner held a record for the fastest trip from San Francisco to Discovery Bay. In 1888 a fire broke out in the hold and the crew scuttled her in an effort to put the fire out. Unfortunately, the ship sank too deep for recovery and the hull now lies in 55 feet of water in Discovery Bay. It is a dark, mysterious shape as the diver descends and causes the imagination to run wild. Not much current runs by and the burnt part of the ship prohibits marine growth so it is quite intact. Divers have taken chinaware out of the galley that dates back to the year 1800. The anchors and fittings have been removed but there are, no doubt, many valuable articles waiting for someone patient enough to sift through the debris.

Skin diving can be classified as Free Diving or SCUBA Diving.

Free diving is diving without benefit of Self Contained Underwater Breathing Apparatus (SCUBA). Diving does have its dangers. SCUBA carries with it most of the dangers of free diving and also introduces other hazards which stem from the limitations as well as the potentials of the diving tank and regulator. Also the ease of using SCUBA permits untrained divers to expose themselves to danger unnecessarily and even encourages carelessness among qualified divers. A non-swimming Mountaineer could weight himself down with SCUBA, walk down the beach and into the water until he was 50 feet deep, turn around and walk back out. He would be as lucky as the hiker who managed to stroll to the top of Mount Rainier using a broom stick for support.

Aside from possible equipment failures or human errors, there is the problem of environment. The Northwest doesn't have the shark difficulty that our warm water neighbors have, and although there are killer whales, blackfish and sea lions in these waters, divers have never been bothered by them. But, because they are a potential danger, the underwater explorer leaves the water when they are sighted. Quite often seal glide and bank around divers but they do no harm. There is the danger of being mistaken for a seal and shot at by someone on shore, and this has happened more than once.

Contrary to popular belief the octopus is a timid creature which leaves the poisonous jellyfish as the most dangerous item in Puget Sound. The large yellow-orange variety is capable of producing severe discomfort. Very often a diver has brushed the long stringers of the jellyfish away from his face to realize instant pain and swelling and in some cases a resultant loss of the SCUBA mouthpiece. There are waters where these jellyfish hang like star bursts from skyrockets.

As in climbing or skiing the dangers are lessened through proper instruction. There will always be a risk in diving just as there are risks in skiing and climbing. There will always be those who wonder if such a risk is justifiable. Most people think that it is.

To participate in this sport it is necessary to have good equipment, good swimming ability and good conditioning. The easiest of these to acquire is good equipment. For diving in the cold waters of the Northwest an exposure suit is required. The most popular is the foam neoprene "wet" suit with hood, socks and gloves. This not only maintains body heat but it provides a positive buoyancy that must be offset by a weight belt. Hence, along with being able to stay warm for hours in 45-degree water there is a safety factor always present. By

flipping the quick release belt one cannot remain underwater even if one desires, as it is impossible to submerge completely while wearing the suit and not the weights. Then with face mask, swim fins, snorkel and knife the swimmer is outfitted.

With the qualifications for ability and conditioning fulfilled he is ready to be trained by a competent diving instructor. There are several diving schools in Seattle whose classes are held in indoor pools and the final class is given in the open waters of Puget Sound. Equipment can be rented for the course and upon its completion the swimmer is a competent SCUBA diver.

Good free divers in Seattle can reach depths of 60 feet and there are divers here who can free dive to 100 feet. Most ferry docks and pilings make good free diving areas because fish feed on the pilings. However, the ferries will not interrupt their schedules for a diver so beware of those propellers.

Other good free diving areas are the kelp beds of Puget Sound and the ocean. The Mountaineer who likes to hike through the forest would probably enjoy gliding weightlessly underwater through 40-foot kelp plants with sunlight playing on the leaves and fish darting in and out, while the current imitates the wind of the forest.

This is the advantage of SCUBA. To be able to lie on the back in 75 feet of water and watch the fish swim by is just one advantage of the aqualung. The self contained underwater breathing unit has done for diving what the chair lift has done for skiing. In shallow water man can remain submerged for over an hour and can swim in water 130 feet deep for 5 minutes. Those wishing to explore deeper and stay longer may use double or triple tanks. Out of the water these weigh 40 to 90 pounds though they lose weight in water and have neutral buoyancy when submerged. Although many diving meets and competitions are held where the tank and regulator are banned, most of the diving in the Northwest is done with SCUBA.

From the Canadian border to the Oregon border is one fantastic diving area. It varies in conditions and terrain just as ski runs vary and as mountain peaks are different. It could be said that every area has its own "aquasphere."

Starting at the north end of the state are the fabulous San Juan Islands and one of the finest diving areas possible. Vast quantities of deep water teeming with life make these islands a rich area for diving and marine research. There are even abalone growing on some of the reefs that are washed by warmer waters. A diver was prying off

abalone shells in 35 feet of water when he looked over his shoulder and saw a large ling cod watching him. As he turned the fish started back down the cliff but the diver's tank hit the rock wall and the fish came back to investigate. He shot the fish with his spear gun and it weighed out at 50 pounds. Another diver was taking pictures with a friend about 40 feet under the surface of the Sound when he looked over his shoulder and saw a 400-pound sea lion supervising. They left the water without much hesitation.

Working south to Deception Pass and Rosario Beach one runs a gauntlet of good diving waters. The current runs fast at most of these areas and the best diving is done at slack tide. But it is fun to ride the current and drift along 10 to 15 feet off the bottom and observe the surroundings. However, a boat overhead should follow the path of bubbles or one may end up swimming and walking a lot farther than necessary.

Whidbey Island is a favorite diving area. The Keystone Ferry Terminal on the northwest side of the island has a rock jetty that forms a breakwater for the ferry. The large boulders that make up this jetty provide small caves for protection of fishes and they are covered with sea anemone and various organisms. The bottom of the jetty is almost 60 feet deep and is washed by a strong current. One of the largest fish I have ever seen while diving was in 10 feet of water on the north side of this jetty and I still don't know what species it was.

Columbia Beach on the east side of the Island has excellent crabbing. Many times divers have scooped up crab in 10 to 20 feet of water, brought them into shore and tossed them into a bucket of boiling saltwater. They are delicious, but more than once I have come up from the depths tossing a crab from one hand to the other like a hot potato because I didn't have a good grip on it and because it was looking for a good grip on me.

Farther south lies Edmonds. A 115-pound skate was taken here which is close to a record. There is an old dry dock northwest of the terminal and this hulk lies just submerged at the low tide. Its bottom is in 40 feet of water and provides a haven for fishes of all kinds. In a one-hour dive one can swim in and around the hulk and see perch, sea bass, ling cod, rock cod, kelp cod or sculpin.

One of the diving areas closest to Seattle is Elliot Bay. It boasts a large number of octopus. The bottom is littered with debris from the adjoining docks and the animals hide among the wreckage. One extremely dark morning four of us searched this area for a record octopus someone had claimed to have seen the day before. He thought

it would go well over 200 pounds. We searched but the largest we found was only 65 pounds with a spread of 13 feet. Somehow, though, in that dim light and with thoughts about the possible size of that octopus, our hearts were not in the right place. In fact, we didn't relax until having a cup of coffee after the dive.

One day an average sized octopus from this area was turned over to Dr. David Chapman, a marine biologist at the University of Washington. His examination disclosed feathers in the stomach of the animal. The Zoology Department confirmed the fact that they were Cormorant Duck feathers. The conclusion reached is that when the birds dive down to feed on the bottom and they reach 60-foot depths or more, the octopus grab the less wary and enjoy a duck dinner. It is a strange world we live in.

Just across from Elliot Bay lies Blakely Rock. This outcropping can only be reached by boat. An underwater search has been conducted around these rocks by means of a sea sled. The diver on the sled is towed by a boat, with the diver controlling the sled's ascent and descent. The trick is to have the boat move slowly. The first opportunity to use the sled was given to myself and another unsuspecting diver. The boat was moving so fast that 6 seconds after touching the dive mechanism we were being dragged along the bottom of the Sound 60 feet below the surface. Another touch of the controls and we came up so fast we almost cleared the water. Once we learned the trick it was so enjoyable they had to stop the boat to get us off the sled so someone else could try it.

One January day when skiing was poor, six of us turned around at Snoqualmie Pass, traded skis for diving gear at home and caught the ferry to Vashon Island. Once on the island we drove to the west shore and a spot called the Cove. While three of the party snorkeled around the pilings the other three began to explore. Fifty feet down we discovered a group of caves alive with ling cod. I shot a 20 pound fish and was congratulating myself when a tremendous thrashing object drifted by; it was a diver with two big fish on his spear. He had shot through a 35-pound fish and had gone into a 40-pound one behind. Hunting was very good that day. Incidentally, all fish taken are eaten and the freezer never seems to lack fish.

Quite a bit of diving is done around Lincoln Park. Just south of the park are some steep drop-offs. After diving in the area for three years my brother and I obtained triple tanks and decided to see what lay deeper. Our first dive to 110 feet disclosed nothing but steep sand, but as we were swimming I glanced over my shoulder

and found a large ling cod following us. We stopped. He drifted up to look us over and we spent several minutes comparing each other. Apparently curiosity is not only a human trait.

On our next dive we reached a rock gully or couloir at 120 feet and followed it down to 160 feet. It dropped us into a dark pit with walls on all sides—very unusual. The fish swimming in the pit created a phosphorescence very beautiful to watch. Here was a spot we had been diving above for years and we hadn't realized its geographic potential.

Ocean diving at Westport should be mentioned. Not much is known about the wild waters off the coastline as the surf and surge tend to discourage diving. Only the expert should attempt to combat the hazards off our coast. More than one diver has used jam holds to prevent being swept out beyond the three mile limit! There are a lot of fish but everything shallow is stirred up by the surf. The place to dive is quite a distance beyond the surf line, with a good boat overhead.

There are many other diving areas in the Northwest that are worthy of note: Hoods Canal, Port Angeles, Sekiu and a hundred others. Everywhere the sea touches our shore lies adventure. Divers are obsessed with the incredible vastness of oceanic life and geography waiting to be known. The home of animals and plants on land is in a thin skin less than 5 feet in thickness, while the living zones of the ocean average 12,000 feet deep and more than 1,000 times the volume of the land. A world of adventure lies beneath our northwest waters.

"Why go down to the sea?" we are asked by practical people. George Mallory was asked why he wanted to climb Everest. His classic answer serves us too.

HAROLD ENGLES

CASCADE FORESTER

By DON DAVIS

Most men who go into forestry today have college degrees and are looking to careers. These undoubtedly are necessary with the present multi-use of the national forests, the increased paper work and the variegated picture of forest resources. But in earlier days, it was pure love of the forests and mountains which took men into the service.

Harold J. Engles, retired forest ranger of Darrington and Whitehorse, was such a man and still is. He loves his outdoors but hates to be bothered with some of the modern methods and bickering over tracts of timber, let alone the apparent disregard of the beauty of the forests by some who now go there.

Engles retired from the United States Forest Service in 1958 after 39 years of devotion to the forests, trails and to those who would find recreation and a meeting with nature in the national forests.

Born in Portland, Oregon, Harold started with the Forest Service in 1919 as a guard on the former Cascade National Forest in Oregon. He became an assistant ranger by 1924, serving at Oakridge. Later in the same year he went to West Boundary as district ranger. In February of 1927, he left Oregon to become ranger at Darrington in the Mount Baker National Forest.

Darrington District was much larger in those days, with the present Monte Cristo District with headquarters in Verlot included. Engles spent much of his time at Verlot as well as Darrington. It was here that this author first met the incredible mountaineer.

In 1937, the U. S. Forest Service gave him one of the "top" spots in the Northwest, installing him as ranger at Zigzag and Mt. Hood. He did more than a satisfactory job there but his heart was not in a full recreation program . . . He longed for his rolling mountains, where a man could really get away from it all when necessary. In 1943, he returned to Darrington.

He was needed. Because of the war shortage, the districts had been combined again and it was a big job. But it was home, not only to

Harold but to his wife, Anna May, a daughter of the pioneer Keenan family. Mrs. Keenan first went to Darrington in 1893, being paddled there by Indian canoe. Mr. Keenan arrived about 1900. Both were from Canada.

Harold and Anna May now can hardly think of any place for home but the Darrington area. Retired, Engles raises a few beef cattle and a garden but just let the slightest insinuation of a mountain trip fall his way and Harold will be legging it in that direction.

To make certain that the next generation has a rounded education the Engles have sent their high-school age daughter, Elaine, to Seattle for schooling. For Engles himself, even as a youth, the call of the mountains was too much. He started his own trap lines in the Oregon Cascades when 16 years old. Later, determined to be a real Forest Service asset, he took forestry courses at the University of Montana.

Although not primarily a peak climber, Engles has climbed most of the peaks around his areas in the line of business or just for the sheer love of reaching the heights. In fact, in peak-filled Snohomish County, Engles probably has climbed every summit, with the exception of Columbia and Wilmon Peak. However the highest in the county, Glacier Peak, which also ranks fourth tallest in the state, was climbed by the veteran for the first time only last year. He had many times been on its ridges and all around it but hadn't taken the time to reach the summit.

Engles has also climbed most of the mountains in the Bull Run, Sandy and Willamette watersheds in Oregon. In the line of work, he has been to the top of Mt. Hood at least once in every month of the year.

Just to keep in trim, he took time away from home and farm long enough this past summer to climb Glacier Peak and again scale Mt. Whitehorse and Mt. Three Fingers. He plans to ascend Mt. Rainier this summer.

The tall and angular ranger is well known for his phenomenal strength and endurance. While stationed at Zigzag in Oregon, Engles was called to participate in a conference and dinner in the Clackamas River area. New to the area, he decided to walk through a portion of his district instead of driving to the meeting.

He was informed that he was a bit late upon arrival. The explanation—Engles had walked the entire distance, climbing four peaks to look around en route.

During his years of service, Engles spent much time in building and supervising the building of trails, as well as hiking over them. Some of the main trunk trails were established when Engles came into the Forest Service but he has been responsible for many miles of trails in his districts, including about 200 miles of trails in the Darrington District, 70 miles of trail in the Silverton District, and over 200 miles in Oregon.

Familiar to most Mountaineers, the Crest Trail around Mt. Hood was located by Engles and he aided in its construction. He has been instrumental in many others, including that up Three Fingers, the Cascade Crest, Bald Eagle, Boulder River to Jim Creek, Meadow Mountain, Boardman Lake, Mt. Dickerman, Canyon Creek, Silverton to Barlow Pass.

It is somewhat of a question just which of four persons of the upper Sauk valley area will eventually become the most legendary. Along with Engles were Nels Bruseth, who with his love of the out-of-doors found time to paint his favorite scenes and campaign for the preservation of wildlife, especially the mountain goat. Also there were Harry and Edith Bedal, brother and sister, children of a Caucasian father and an Indian mother. Their deeds also are well remembered by those who have sat around the campfire of an evening, listening to the tales of days past.

Still looking to the future and making plans for the years to come, Engles also likes to reminisce. A little difficult to get started talking sometimes, being a typical mountain man, once underway he unfolds a story of the life of the Forest Service and the mountains.

Take the time when as a ranger at Darrington, he got word that the government had alloted a small amount of money for road improvements from Turlo to the Forest Service station at Verlot. The money would not cover the work necessary so much of it had to be done by the Forest Service employees themselves. Engles was never one to waste time if there was work to be done.

Busy at Darrington, Engles turned the job over to men at Verlot. The morning the work was to start, he awoke early, started to think about the tough job. Feeling sorry for his fellow employes, Engles arose, dressed, walked up the Sauk River to Clear Creek, climbed Windy Pass, went down the South Fork of Canyon Creek, past Canyon Lake and into Verlot, arriving in time to start the morning's work with the others. It was only 20 miles over a couple of mountain passes.

Of course, he couldn't let the work at Darrington lag either. After a full day of grubbing in the earth and mud at Verlot, Engles made the trip (another 20 miles through the mountains) back to Darrington to catch up on work there.

Harold loved to roam the mountains with Bruseth and the Bedals. Each challenged the others. Looking over the possibility of a trail in the Mt. Three Fingers area, Harold Engles and Harry Bedal went up Boulder River and Three Fingers, blazing trail sites, cut between Three Fingers and Big Bear Mountain, followed a ridge between Copper and Squire Creeks and then down into the latter. Starting at 7 A.M., they did not return to Darrington until 10:30 P.M. In the meantime darkness had fallen. With no trails, they took to the waters of Squire Creek, sloughing their way down the stream. To aid in lighting their way, each put a lighted candle over his head.

This worked well until a deep hole suddenly would appear in the creek bed. Into this hole, getting fully soaked, would go one or both of the explorers. But waterproof matches would get the candles going again.

Engles had Bedal in charge of a fire fighting crew on Mt. Whitehorse. Returning from another such action, Engles learned that one of Bedal's crew had fallen from a cliff on the mountain.

Worried, Engles hurried to find Bedal and immediately asked why there had been no report and why he had not been informed.

"Why?" said Bedal, "He only fell about 70 feet."

One thing the legendary forest ranger always knew, if the Bedals could not make it, there was little use of sending anyone else to help them. Edith Bedal ran a trapline alone in the heart of the Cascade Mountains each year in the dead of winter.

But not all of Engles' companions were as able to get by. He and a companion once spent five days from Silverton to French Creek and the Boulder River to spot a trail. It rained continuously and each man had but one blanket. Harold came through as usual. The companion took sick and died soon afterward.

Engles thought his world had turned really drab in 1940 when his back was injured by a log. However, he used it to some advantage. He always preferred walking to riding. When horse tours were made, he could always be excused from riding because of his back. And as any good hiker knows, a man afoot can make better time than a mountain trail rider.

But in 1952 Engles was once more talked into riding. He straddled

the horse so that he might care for motion picture equipment being taken into the mountains by a group. On a steep rocky slope, the horse went over backward, dragging Harold by one stirrup for about 200 feet down the slope high up on Miners Ridge.

He doesn't recommend the method but it cured his back.

One of Engles' fondest memories is that of Nels Bruseth. Although he never failed to see the beauty of nature, Bruseth had poor eyesight and many times walked directly into trees or other obstacles when hiking. One day, the two men were traveling an old trail, Bruseth in the lead. Suddenly Nels went completely out of sight. When Engles realized Bruseth was gone, he found him crawling from a deep hole which had been washed into the middle of the trail.

Back on the surface, Bruseth brushed himself off, turned to Engles and said "That place will have to be fixed."

Some of the favorites of the older days are gone and some ideas continue. Missing now for years is the Crystal Creek Orchestra. Lonely men high on mountain tops or in some out of the way cabin in a valley would call into Darrington headquarters of an evening.

After 7 P.M., Engles would allow the telephone lines, used extensively then, to be connected through the switchboard so that each could talk to the others. Conversation generally did not last long. The men had musical instruments, sometimes only paper around a comb, but the Crystal Creek Orchestra went into full swing many and many a night. No one knows what the creatures of nature thought of the "noise" which was created but the men of the mountains found many enjoyable hours.

One early institution on the part of Engles, however, continues even now. Few try it but Harold continues to have a lot of fun seeking to have others emulate him.

At Kennedy Hot Springs Engles will strip and take a good warm bath after a day on the trail. Others will go along with this part of the ritual but adamantly refuse to partake of the second half. The hardy mountaineer suddenly leaps from the warm spring water, dashes a few feet and dives headlong into the glacier-fed Whitechuck River.

He says this is superior to a cardiograph to determine the condition of your heart. If you come out of it, your heart is all right. If you don't, well then, your heart must have been weak.

Harold John Engles, as it must be evident, is the old style forest

ranger. In the early days, things did not go by the book. They went the way the man present believed they should.

Engles, before his retirement, never did quite accustom himself to making out a schedule telling headquarters just which day he would fight fire and which day he would build trails. He always felt if he knew when the fires would occur, he would stop them in advance.

While most of the present day Forest Service men of note are college graduates and well-trained for their duties, Engles was self trained. As he says, "You didn't go to college and study hard and get a degree in forestry or something to be a ranger then. The way it was then, when you got hungry, you went up and got a job in the woods for a couple of months till you weren't hungry anymore and it was pretty good work."

He points out that in the early days, national forest rangers weren't much more than custodians. There were no timber sales because loggers had all they could use on their own lands. There were no such things as recreation areas.

The few roads to be built were constructed by the rangers with the aid of a mule team and wagon.

Engles admits such work wasn't very fast but "If we didn't get it done that day, it got done some other day and nobody was in a big hurry then."

In the early days of the Darrington job, Engles had a big territory. The Mountain Loop Highway and its spurs now cover most of this but at that time there were no roads. The old Hartford and Eastern Railway served the South Fork of the Stillaguamish River and the upper portion of the South Fork of the Sauk River, going as far as Monte Cristo.

When the gold fever which developed some small towns along the way ran out, the railway was hardly a paying business. Sudden storms or other causes of floods would wreck a portion of the railroad and soon the owners gave up.

The people of the town of Silverton were left with no means of exodus. No road, no railroad and only a trail which ordinarily was so muddy that horses mired down. So Engles and others got together and patched up the railroad.

"Of course, it had some square curves in it but a speeder could get over it; we hauled mail and people and it worked fine."

Main trouble was at Red Bridge where the river had washed the supports out from under the rails, just leaving them hanging on here

and there. As Engles says "Well, we got some cable from a logger down the way who'd thrown it away because it wasn't safe any more and we dead-ended it on each side of the river, then led it over some posts and across the river. Then we tied some wire from it to the ends of the ties still hanging on the rails and we had a bridge.

"Only trouble was that we had to gun the speeder pretty hard to get over it because it sagged in the middle and if you didn't hit with enough speed, you didn't get up the other side. So then you would roll back down and up the other side a ways and you'd keep rolling back and forth till finally you came to a dead center. Then someone had to throw you a rope and haul you back and you had to start all over again."

He continued, "So one day the chief came up from Portland to see what we were doing and I was a little nervous about what he would think of our bridge when he got on that speeder. The cable hung kinda low at the end so I hollered 'duck' when I gunned her for the bridge. He ducked all right and looked out over the edge of the speeder and thought he was in outer space. Man, he sure gimme a mean look when we got over to the other side."

Rivers were always a problem for the early day forest ranger. There were no bridges and there was always another river to cross. If the stream was not too wide, a tree could be felled to provide a dry pathway. Sometimes, one used a peavey for a prop against the water pressure when forced to wade but this was not effective when the depth became too great.

Engles says he doesn't believe these present day TV pictures about grabbing a horse's tail and being towed across a stream. He said in his day they took the bridle in one hand and the tail in the other and if the water got up to your chin, you let him pull you across. That is, if the horse decided to go ahead. Many a time he turned and went back. Then it was necessary to find another way of crossing.

He likes to remember the old-timers in the business, too. His greatest comment on those he knew could be "Fine mountain men. They really knew how to live."

He remembers one friend who would regularly and solemnly report to his superiors that a cruise he had made showed that it was covered with 40 percent hemlock, 50 percent cedar and 60 percent fir. The supervisor could not take this and finally went to the ranger area to check up. When the ranger did not seem to understand what

was meant by all adding to 100 percent, the supervisor endeavored to explain by cutting up an apple.

The ranger agreed on the percentages when the apple went into halves, then quarters. However, his next report said 50 percent fir, 40 percent hemlock and 30 percent cedar. When called on the carpet, the reply was "That percentage stuff may work on apples but it don't work on timber."

Harold remembers when "progressive travel" came to the Forest Service. It came with the first roads. Using a model T, the men would ride along maintaining telephone lines. If a country school should show up along the way, an old-time projector, operated by a storage battery, was pressed into use to educate the children about the Forest Service.

Sometimes there was a special incident. In his words:

"Every school had a well out in front and a pump. I remember one day when the district ranger wanted to spruce up before we went in the school, so he took his teeth out and pumped up some water to slosh the tobacco juice out of 'em. Only he had his hands too full and the teeth went down the well. Probably gave the water a little twang, though."

Also in the early days, efforts were made to use pigeons to carry messages. Engles said "You'd wrap a message around their leg, send them off and they'd go down to some grain field. Pretty soon they'd be back—still with the message."

"I didn't have much fancy education but someplace I recalled hearing that a bird in the hand is worth two in the bush. So maybe they weren't so good for messages but they did furnish us a few extra proteins."

Harold about gave up when the order came through that rangers were to shave every day.

"By golly, we'd never heard of such tyranny. It was like when King John signed the Magna Carta at Runnymede." But he conceded it was just like crossing the rivers. There's always one more river to cross and when the current changes, you have to change with it or you're swept downstream.

Then there was the time while on duty in Oregon when a speeder was being used on the Southern Pacific's rails to service the Forest Service telephone lines. There was only one difficulty, the fact that the S.P. was building a lot of branch lines and the tracks became quite

heavily used. The men on the speeder had to be alert. As Engles puts it:

"What we particularly hated was one tunnel that was 1,999 feet long. It was that length because if it was 2,000 feet, the railroad would have to have a watchman at each end, so they just chopped a foot off of it. It was on a curve, too, so we were never sure when we went into it what was coming in at the other end. Of course an extra train always had two white flags on the engine but that didn't do us much good because by the time we saw the flags, there was the engine."

Engles likes to tell about the people he knew, too. And there were many colorful figures in the by-gone days. Engles tells of a friend who retired at 35 because work interfered with his drinking. His father had left him sufficient money to do this.

This friend, with the one bad habit, lived also to help others and when sober enough, attended all church functions. One evening the men of the church planned a dinner.

Similar to the old saying of birds of a kind flocking together, the real devout gathered on one side of the room to talk and the not-so-devout on the other. When it came time to eat, the men naturally went to the table on the side on which they had been standing—and talking. It was one long table. The gentleman under discussion was about the last to sit down. He walked to the head of the table, looked over the situation and remarked "I see all the lily whites are on this side and the men about town on the other. But don't worry, I bought the whiskey that wet all of your bellies."

As he says, there's always one more river to cross or one more mountain to climb. And Harold Engles will go back to the one just crossed or climbed if he cannot find another.

Heroes come from some rare event. Engles will never be a hero, his entire 37 years with the Forest Service being filled with events, most of them never known to the general public. However, he is already a living legend, a legend which is a tribute to early-day Cascade forestry.

SUMMER OUTING

WIND RIVER RANGE

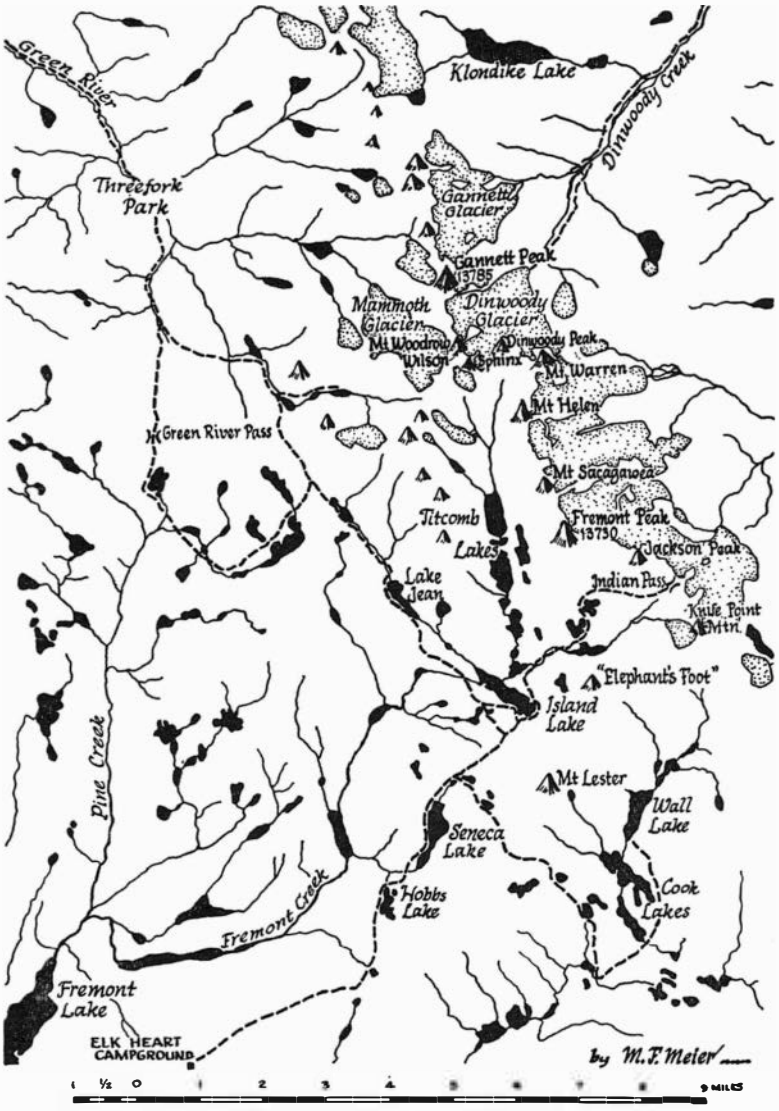
By MARY FRIES

For many members the 1959 Summer Outing began Saturday evening, July 25, while camping in Craters of the Moon National Monument. Others met the next day in Pinedale, Wyoming, the take-off point for our trip into the Bridger Wilderness Area of the Wind River mountains. From Pinedale we drove fifteen miles past Fremont Lake to Elk Heart Guard Station at the end of the road, where cars were parked.

An easy seven-mile trail along the top of a ridge brought the party to Monday night's campsite at the outlet of Hobbs Lake in plenty of time for a swim there or in nearby Barbara Lake. Another seven miles on Tuesday took us past scenic Seneca Lake, and over a low pass which afforded a dramatic approach to beautiful blue Island Lake. This 10,500-foot lake with its backdrop of rugged granite peaks was home for eight days. Sheldon Brooks, Outing Chairman, had located camp on a knob overlooking the south end of the lake, where a snowbank lying late on a north slope furnished water and refrigeration.

Colorful tents, replacing the drab surplus of early postwar years, contributed a new look to Mountaineer encampments. A roomy red one, supplied with crimson guy ropes and a gorgeous yellow wash basin, was greatly appreciated by the local hummingbirds as they dove by. Also pleasing were pale aqua and royal blue shelters which combined well with the gray of tastefully landscaped granite and flowers. A pastel green number weighing only 3½ pounds *with* pole and separate floor, and tall enough so that the owner could dress standing up, aroused the envy of all.

From camp we could trace the Continental Divide skyline toward the north: First 12,130-foot Indian Pass with a steep rise to the left, then a short dip to a high saddle and a gradual rise for about half a mile to Jackson Peak, 13,400 feet. Then came another saddle and the steep cliffs of Fremont Peak, 13,730 feet; from camp the sharp



GANNETT PEAK - FREMONT PEAK AREA
WIND RIVER RANGE, WYOMING

point of 13,607-foot Mount Sacagawea looked almost like a shoulder of Fremont; Mount Helen still further north was definitely a separate peak, her western face a 1500-foot precipice. Only 13,720-foot Mount Warren was hidden from Island Lake, being in a direct line behind Helen. Gannett Peak, 13,785 feet, was almost concealed, except for a minute portion of a snowfield that appeared deceptively close, but was actually nearly two miles behind a bastion of lesser pinnacles, themselves about six miles from camp. Gannett's summit is the highest point in Wyoming. Two nearby peaks not on the Divide, were 12,325-foot Mount Lester, about two miles southeast from camp; and a table-like mountain, well nicknamed "Elephant's Foot," whose thousand-foot cliffs rose about a mile east of the lake.

Successful climbs were made of Mount Lester, Jackson Peak, Fremont Peak, Dinwoody Peak and "Elephant's Foot." Most of the climbing was upon rock with occasional patches of snow; however, large snowfields were crossed in the attempt on Gannett Peak. Although the peaks contained much loose rock which required extreme care for large climbing parties, a major problem was weather. All climbs, excepting Mount Lester, encountered some rain, hail, or snowfall. Storms seemed to roll up just after noon.

The first climb scheduled was Mount Lester. Robert Swanson led seventeen eager climbers away from base camp on Thursday morning, July 30. The approach to the mountain was in a southeasterly direction into Lester Basin. After a southerly course up a steep gulley—some went up the snow, others up rock—to a saddle on the ridge, the true summit was sighted as the most western of the three. An hour's rock scramble brought the group to the top and a beautiful panorama of the surrounding peaks and dozens of lakes in the area was revealed. The weather was pleasant and photographers took advantage of clear skies. This party returned to camp in time for tea and relaxation before dinner.

Jackson Peak was climbed by a party of sixteen under the leadership of veteran Leo Gallagher on Friday, July 31. This group followed the trail towards Indian Pass until it was necessary to ascend the rocks. Route-finding was difficult and slow until the summit ridge on the Continental Divide was reached. Here the weather turned bad; rain, hail and snow followed for the rest of the day. The summit was approached along the edge of a snowfield but offered no views or comfort because of the wind-driven rain and snow. Some of the climbers were aware of static electricity coursing through their hair, humming on their ice axes, or rattling their

plastic ponchos. The descent over wet rock was slow, and the weather-beaten party returned to camp at 6:30 P. M. to be warmly greeted and to be served dinner in the cook's tent.

Fremont Peak is the second highest in the Wind River Range. Jerry Brandon led a party of eighteen up this formidable looking peak on Sunday, August 2. Since it lies adjacent to Jackson, the approach is the same. The final fifteen hundred feet required competent route-finding by the leader, with the party slowly following his rock markers until the summit was attained. It was clear and bright though windy and cold on top, and marvelous views were afforded of the entire range. The register indicated that our party was the first to climb the peak this year. It also contained a framed picture of John C. Fremont, reminding climbers that the great explorer had also reached this summit, which he believed to be the high point of the Range. On the descent we met three climbers from Casper, Wyoming, the only party of climbers encountered on the mountains during our outing, though many fishermen were camped among the lakes.

Two three-man parties climbed "Elephant's Foot" on separate days. Located close to camp, this 12,150-foot peak required ascending a steep rock gully to reach the top, which was surprisingly large and flat.

To climb Gannett Peak from Island Lake two days are needed. Jon Hisey led a determined party of nine back-packing climbers out of base camp and headed for this peak on Monday, August 3. The party camped that night just beyond the head of the Titcomb Lake Basin at an elevation of about 12,000 feet. At 5 A. M., Tuesday we began climbing up to a saddle west of Mount Woodrow Wilson, through which it was hoped it would be possible to approach Gannett. Unhappily, it was necessary to climb down the other side, and a false move was made in climbing up again to another saddle which did not lead to the peak. After contouring along the upper edge of the Mammoth Glacier for nearly two miles, we found the key to the summit route just as an electrical storm broke about 1 P. M. Tired climbers returned to base camp around 9 P. M. convinced that with good weather and a knowledge of the route, we could be successful another time.

On Tuesday, August 4, John Klos, who was Climbing Chairman for the outing, led a party of seven climbers to Dinwoody Peak. This party left camp at 5 A. M. and hiked six miles to the head of Titcomb Lakes Basin. The climb itself was up steep snowfields and

rock to Dinwoody Pass at 13,000 feet and then along the Continental Divide up loose rock to the summit. Just as the party approached the top about one o'clock the electrical storm began. Only time enough was spent to note in the register that the last climb of the peak was in 1952 by the Appalachian Mountain Club. A hurried descent amid static electricity, hail and snow brought the group back to the basin, where the Gannett climbers were seen safely returning to their high camp in the revived sunshine. The Dinwoody party was back in base camp by 7 P. M.

Inviting lakes to visit and grass-dotted granite knobs to climb drew trail trippers in all directions from camp. Most popular of the longer trips was that to Titcomb Lakes Basin, where a string of lakes surrounded by flowering meadows lay at the foot of high rugged peaks. Here we trod primrose paths and meandered through multitudes of marsh marigolds. Another basin of flower-encircled lakes, at the foot of Jackson Peak, helped entice a smaller number of people up five miles to Indian Pass on the Continental Divide. From there we could look toward brown hills beyond the eastern slopes of the range, as well as westward to sparkling lakes and granite ridges.

Fremont Creek, emptying Island Lake, was beautifully blue and rushing. It was frequently followed for two miles below camp to the bridge—load limit five horses—where a trail led up to "Polemonium Point" near the shores of Lake Jean. A cross-country route led to Wall Lake. Some hardy souls traveled the seven-mile trail toward Cook Lakes but returned in haste as the skies prepared to replenish the lakes' water supplies.

Short strolls were made to the waterfalls pouring into Island Lake, and up the knob above commissary which was affectionately labeled "Old Baldy."

Our first impression of the fauna of the Wind River country was that animal life is rather scarce, though what we saw was challenging to identify and entertaining to watch. Perhaps we were blind. Certainly tracks of deer, and possibly also of mountain sheep, were numerous. Yet only a few of the former and none of the latter were seen. There were at least four weasels, flashing their black-tipped tails in swift flight. Two marmots showed a friendly interest in our snowbank refrigerator; a pine marten in the same vicinity caused Joe Pullen, Commissary Chairman, to become expert in marten-proofing cold storage supplies. Chipmunks seemed to enjoy our visit; one found a grape, a fascinating new gustatory ex-

perience for him. A browsing cony let himself be stalked and photographed at close range; many more beeped at us and disappeared into the rocks, wondering at the pound, pound of our heavy boots.

White-crowned sparrows were everywhere; these may have been the sparrow-like birds mentioned in John Fremont's journal of the first white man's exploration of the Island Lake area in 1842. The nest of three young ones, near a sandy beach not far from camp, gave us a chance to observe how fast their feathers grow. As we were coming up on the Seneca Lake trail, a cock dusky grouse flushed with a whirr while two brown hens stayed calmly on the ground so we could have a good look. Several olive brown, long legged spotted sandpipers were seen probing for insects at the edge of lakes, teetering on rocks. There was one pair of spotted babies in a clump of willows. A stubby tailed, slate-gray water ouzel bobbed his tail at us near the outlet of one of the Titcomb Lakes and was off with a repeated cry of "zeet." American pipits flashed their white tail feathers and scolded "jee-jeet" when we walked too close to their already-fledged young. Flocks of rosy finches, numerous robins, a few hawks and ducks, some mountain chickadees, pink-sided juncoes, hummingbirds and violet-green swallows complete the list of birds.

No reptiles were reported; a few grand-daddy toads seem to have been the only amphibians. Many trout were caught—rainbow, eastern brook and native cutthroat; they were large and tasty.

The high elevations at which insects may be found is always surprising; band-winged locusts, beetles, bees and butterflies were observed. Last, but inevitably not least, were the flies and the mosquitoes. Even Fremont's party made frequent, unhappy reference to the mosquitoes; these pests seem to have run into no danger of extinction in the intervening century.

Many kinds of flowers were seen. Green gentians were beginning to bloom at Elk Heart Park when we camped there the first night of the outing. They had tall spikes of four-parted greenish flowers with purple spots, in habit of growth reminding us of the green hellebore of the Cascades. As we hiked higher, flaming paintbrush, pink pigmy lewisia, dusky beard-tongue and bright yellow arnica and potentilla appeared. The light-colored phase of the Colorado blue columbine, *Aquilegia coerula ochroleuca,* growing among the rocks, was beautiful and used a lot of film. Perhaps the most exciting flower was the deep red Parry's primrose blooming in wet rock crevices and under shady cliffs. It had also earned special

mention in Fremont's journal. Another lovely flower, if you held your nose, was the blue *Polemonium viscosum,* or sky pilot.

Small lavender violets were blooming all over our Island Lake camp when we arrived. The same species we enjoyed in the Wallowas last year, *Viola adunca bellidifolia* is a subspecies of the common wild purple violet. Mertensia was widespread, mostly blue but sometimes pink. Common names for it in this area are richly descriptive: chiming bells and languid lady. Rose crown sedum, much of it in bud, was found in damp soil.

White mountain dock, polygonum bistortiodes, grew everywhere, waving its dense little spike in every breeze. This was a familiar species also common in the Cascades. Another old friend flourishing in the marshy areas was the elephant head lousewort, *Pedicularis groenlandica,* a little smaller than when growing in the Northwest. *Phacelia sericea,* purple pincushion, greeted us at the Hobbs Lake camp, and was a puzzle to identify, as this large robust flower under the trees looked very different from the tiny plant as it grows on alpine scree slopes of Mount Rainier.

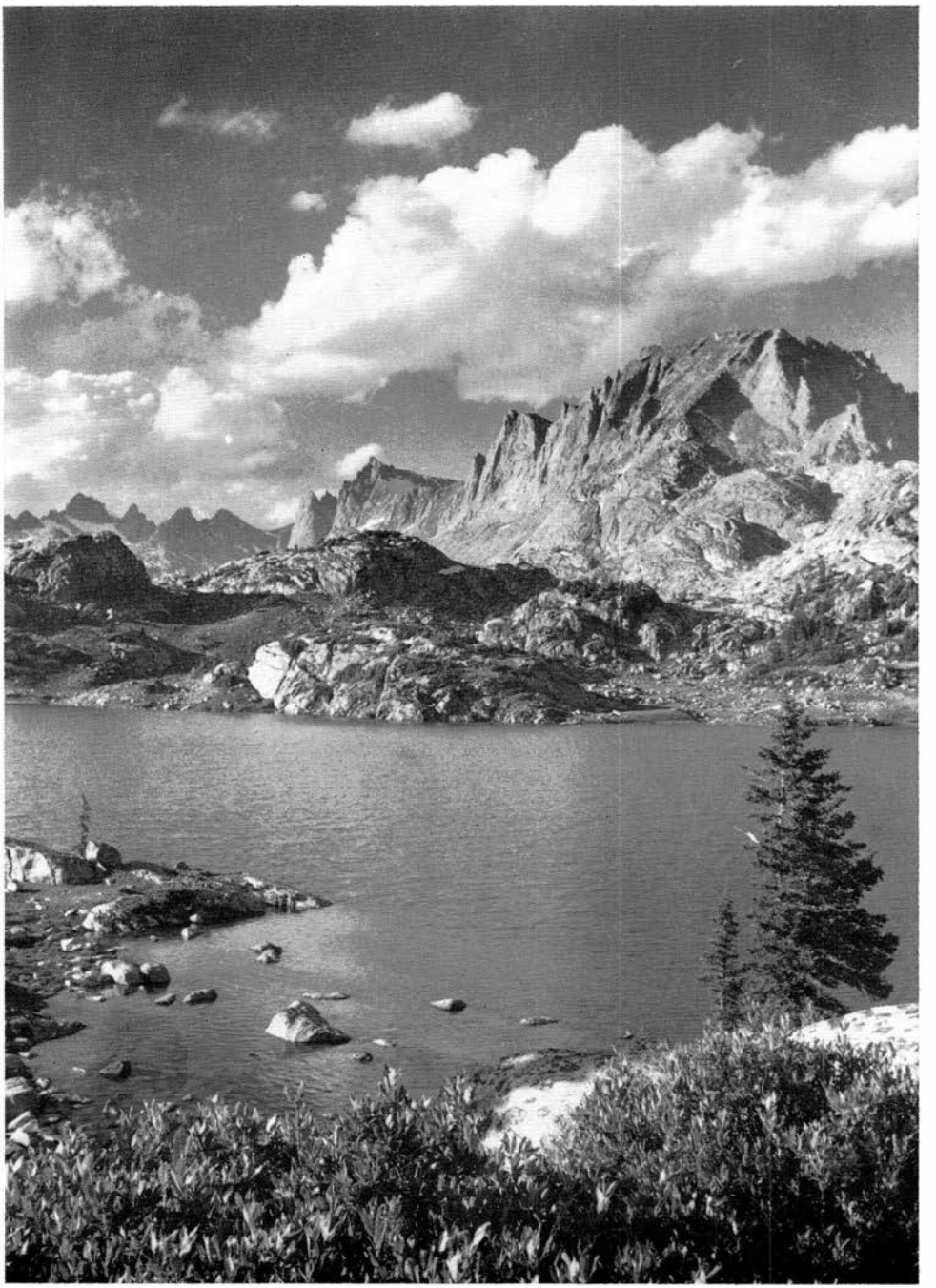
The composite family gave us several species of fleabane (*Erigeron*), a low alpine aster, a small goldenrod, several ragworts (*Senecio*) and the beautiful large yellow sun god (*Rydbergia grandiflora*). The last named was new to most of us and good specimens caused excitement among the photographers. An example of the way the seasons tread on each other's heels at timberline was having both marsh marigolds and goldenrod blooming at the same time in camp.

Our trees were alpine fir, *Abies lasiocarpa;* Engelmann spruce, *Picea engelmanni;* and the whitebark pine, *Pinus albicaulis.* Thicket-forming willows were growing in and around camp and tiny creeping alpine forms on the trail to Titcomb Lakes.

The earlier flowers were faded and new ones, pink mimulus, cream buckwheat and fireweed, were found along the trail as we hiked out on Thursday, August 6. The trip down to the cars was made in one day; after picking up dunnage at Faler's Camp and bidding goodbye to Mary Faler, packer, we headed for milkshakes and baths. Three days allowed for the drive home gave time for sightseeing on the way, in Jackson Hole and Yellowstone.

CONTINENTAL DIVIDE FROM ISLAND LAKE

Above the small glacier in the left background is Mt. Woodrow Wilson; immediately to the right is The Sphinx; the lowest saddle is Dinwoody Pass; to right are Mt. Helen, Mt. Sacagawea and Fremont Peak.



Continental Divide from Island Lake — *Ruth Ittner*

View South from Summit of Gannett Peak, Wyoming — *Mark F. Meier*

This was a friendly outing; the relatively small crowd of fifty members fast became a close-knit group. Visited for the first time by a Mountaineer party, the Wind River Range was found an attractive spot, and the resolve of several of the climbers might typify the feelings of all—"Gannett Peak, we shall be back!"

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VIEW SOUTH FROM SUMMIT OF GANNETT PEAK

Dinwoody Glacier in foreground, Dinwoody Pass above it on left, Mt. Helen behind the Pass, Jackson Peak in left background and Fremont Peak to the right behind Mt. Helen. To right of center, The Sphinx and Mt. Woodrow Wilson, with Mt. Lester between them in the background.

CLIMBING

NOTES

Edited By STELLA DEGENHARDT

MOUNT RAINIER—TAHOMA CLEAVER

This last, major unclimbed ridge on Mount Rainier was ascended on June 6-7, 1959 by Paul Bellamy, Tony Hovey, Don Keller, Herb Steiner and Klindt Vielbig. From the Tahoma Creek Campground, they took the Emerald Ridge trail to the point where the moraines of the Tahoma and South Tahoma glaciers converge. Following the South Tahoma Glacier on its south edge to about 7,000 feet, they crossed to its north edge, then up to the right of several rock islands and buttresses to about 8,500 feet, where the Tahoma Cleaver begins. They followed the flat cleaver crest until they were forced onto the snow slopes on the left (north) at about 9,200 feet. A small snow col at 10,000 feet, immediately above the base of two colorful rock towers, proved to be the highest feasible campsite on the ridge.

Early on the morning of June 7th, the climb was continued upward on steep snow slopes toward a sharp, prominent gendarme on the ridge at 11,700 feet. They turned the gendarme on the right, some 200 feet below the ridge crest, and traversed the steep snow slopes on the south side of the ridge to the base of a huge rock buttress which apparently blocks the ridge crest. Observers of the ridge had long considered this buttress, sometimes referred to as "The Diamond", to be the key to the climb, and so it proved to be. Forty feet to the north of the buttress, a 20-foot pitch on solid rock was selected, and this vertical pitch was followed by some 200 feet of steep and touchy climbing to the steep, loose ridge crest. Rockfall was a hazard from the base of the buttress to the snow saddle at its top. The climb was continued to the northeast on a broad, steeply-inclined snow ledge to its end at 13,700 feet, where it drops to the Tahoma Clacier. The party continued on steep ledges around the corner to the right for 300 feet, where seracs were crossed to the summit ice cap. No problems are encountered from here to the crater rim. The ascent from the high camp to the top of the ridge required 11 hours.

TONY HOVEY

NORTH FACE OF LITTLE TAHOMA

This route, composed of disintegrating volcanic rock, has long been considered a suicide route.

On Monday, June 22nd, after five years of planning and observation, a party including Gene Prater and Dave Mahre left the shelter at Summerland at midnight, and utilizing the light of a brilliant full moon, ascended Meany Crest and traversed to the notch between Little Tahoma and Peak 8849. Already roped, we donned crampons and descended the steep ice and snow to the Emmons Glacier. Some difficulty was encountered in reaching the glacier due to the presence of a large moat. The shattered condition of the glacier slowed our ascent, and we finally crossed a large crevasse at the 9,000 ft. level to avoid further loss of time in route finding. This involved some delicate ice climbing. We arrived at the base of the prominent ice and snow slope on Little Tahoma's north face at 4 A.M. Having had previous experience with rockfall, every precaution was taken to minimize its dangers. We had selected our time carefully, taking advantage of a recent snowfall and prevailing cool weather. We scrutinized the intended route as closely as possible, and were relieved to see no sign of the usual dirty streaks from rockfall.

We turned the left (east) end of the schrund by climbing 60 feet up a vertical cliff of loose, rotten rock, then continued to the right on a delicate snow ledge extending back to the main slope. This pitch was the most delicate of the climb, affording little or no protection for the leader. The snow ledge was crossed on all fours to lessen the strain on it. The climb continued up the left side of the slope to the base of a prominent rock band extending across the face about midway to the summit, conditions and exposure demanding constant belays as steps were kicked in the hard-crusted snow. Traversing to the left, with this rock band affording protection from the rockfall starting higher up, the snow terrace above was attained by a break in its eastern end. A traverse was made up and to the left to the east end of the rock band immediately below the summit cliffs, then up through a gap to the narrow snow ledge extending along the base of the summit cliff. At this point, due to extreme fatigue and the hazardous condition of the rock in the final 300 feet, it was decided to forego an attempt on the slightly overhanging pitch. The time was 8 A.M. and, following a second breakfast, a descending traverse was made on the upper Fryingpan Glacier on the east side of the peak to the standard route, which was ascended to the summit.

In conclusion, I would like to note: recent snowfall minimized rockfall hazard; the face remained shaded until after 9 A.M. and there was a heavy overcast in the east; the climb was made on Monday to avoid possible rockfall started by weekend summit parties; hard hats and twelve-point crampons are essential; a better place for base camp would be on the Emmons Glacier or at the notch between Little Tahoma and Peak 8849.

DAVE MAHRE
YAKIMA CASCADIANS

LITTLE TAHOMA, NORTHEAST RIDGE-FACE

Bob McCall, Dave Mahre and Lex Maxwell climbed this route on August 23, 1959. From a high camp at Summerland, they ascended Meany Crest and traversed the Fryingpan Glacier to the col between Little Tahoma and Peak 8849. From here the ascent was largely determined by the location of crevasses and the avoidance of rock-fall channels. Steep ice frequently required the use of ice pitons for safety. The major cliff band at the 9500-foot level was passed on the left (east). The summit ridge was reached by passing the right skyline pinnacle on the north and ascending a difficult 80-foot rock pitch slightly east of the pinnacle. The summit ridge was traversed on the south for about two rope lengths by walking over loose shingle rock to a notch. The three succeeding pinnacles were climbed directly to reach the summit. The climb was primarily Class Four and required 9 hours.

LEX MAXWELL
AMERICAN ALPINE CLUB

MT. RAINIER—SECOND ASCENT OF THE NISQUALLY ICE FALL

The Nisqually Glacier, largest on the south side of Mt. Rainier, extends from the crater rim down into the glacier-carved valley opposite Paradise Valley. At about the 12,700-ft. level the glacial flow is suddenly interrupted by the steepening angle of descent and the constricting rock cleavers on each side, forming the largest ice fall on the mountain.

The first complete ascent of the ice fall was made in 1948 by D. Molenaar and R. W. Craig and although later attempts had been made, success was not attained again until this year.

On July 10 at 2 A.M. our party of four left 10,000-ft. Camp Muir and made a quick traverse across the Nisqually to the base of the ice fall. Once there Dick McGowan and I readied our gear for the ascent while our support team set up camp to observe our progress. Soon Dick and I were busy hacking a route through the huge blocks of ice of the lower ice fall.

Our timing was perfect, for just as it was getting light we approached the 200-ft., near-vertical wall of ice at the 11,500-ft. level which we had observed earlier from below.

Dick took the first lead, chopping both hand and foot holds and using several ice screws for safety and aid. About 90 feet up he found a belay spot and I followed, continuing where he left off. After another 100 feet of more of the same I was able to traverse slightly to the right and into a 20-foot chimney which led to a series of ledges and to the top of the ice block.

For the next 1,500 feet we were confronted with large break-ups and 50 to 70 degree ice slopes separated by huge crevasses with

overhanging lower lips, most of which were far too wide to jump. We had to walk around the ends or find bridges. With constant belaying we were able to crampon most of the slopes. At 13,000 feet the slope lessened considerably and the crevasse patterns became less complex.

From this point several variations in the summit approach could be made. We traversed left and made the descent via Fuhrer Finger.

Our ascent of the ice fall required about 7 hours.

GARY ROSE

MT HOOD—YOCUM RIDGE

As we swung the car up the last few switchbacks to Timberline, Mt. Hood stood almost crystalline clear against the blue sky. The party had some ski-mountaineering in mind, but after scanning the upper slopes of the mountain, we could not resist the idea of something more complex. We had heard Yocum Ridge, on the west side, had not been done under winter conditions and just seeing it from the road was a fine lure. (At the time we did not know the entire ridge and buttress had never been climbed, but since the mock-up in the Lodge did not show a dotted route, it aroused our curiosity.)

The date was April 9th, 1959. At four o'clock we had strapped on our packs and were ski-climbing to the Illumination Saddle. Here we pitched my tent in a protected saddle, cooked a quick supper, and wondered how cold the night would be.

It is not hard to oversleep, and we managed this well. But it was only seven and the sun had not yet reached us. Putting the crampons on, we roped immediately and crossed the saddle to the Reid Glacier. Here we descended and traversed to the lower flanks of Yocum Ridge.

The knife-like blades of ice seemed like a nightmare of ice problems instead of a route to the summit. With a covering of ice feathers, not a single rock was visible. The ridge reminded me of a serrated Alaskan one, with fluted ice on the south flank. Getting on to the crest was a toe and ice-pick workout—a strenuous one for the first cramponing of the season. Leo Scheiblehner led this, and once on the ridge he and I alternated the lead. The climbing was easy in some places; in others it was just delicate and exposed, and in some places it was unpleasantly difficult and dangerous. Because of the frost and rime formations, the whole surfacing was often a build-up of frost feathers. An ax belay was generally useless, and ice pitons could not be placed. When possible, we kept to the crest and hacked out a stance. When crossing the flanks of the fluted walls we could do little but hope a slip would not occur.

To remember all the problems is impossible, but several of the most treacherous pitches stand out. One was a frightening corner Leo cut around to gain access to a hard-surfaced ice couloir that led to an ice tower. From here I worked my way under an overhanging

chimney of frost feather, and stemmed up by pulling against long, thin feather-columns for about 40 feet. It was a relief to cut out to a tapering wall on the left.

Several times the ridge ran down into notches, and we had to reverse our technique or jump into little ridge platforms. On the final upper buttress a zigzag ice corridor took us past the steepest profile. We climbed right, across a fluted flank one lead, and then angled back to the top of the crest. Surprisingly, this sector was not as difficult as the lower ridge crest, and in due time we came to the broadening of the ridge, where it merged into the summit slope.

About one o'clock we stood on the summit, facing a strong, biting wind. We left down the normal route after two photos and were soon in camp again. Skiing almost wide open, we raced for the lodge in the afternoon sun.

FRED BECKEY

NORTHEAST FACE OF MOUNT STUART

Don Anderson, Dick Hebble, Dave Mahre and Gene Prater climbed this route in August, 1959. From Ingalls Lake, they made a rapid trip across Stuart Pass, Goat Pass, descended to and traversed below the Stuart Glacier and at 6:30 A.M. strapped on crampons beside the Ice Cliff Glacier. Crossing to the east of the glacier with two ice pitons for safety below the ice cliff, the party climbed on rock past the 100-foot ice cliff that goes from wall to wall in the glacier's trough.

A route was chosen up the edge of the wall above. Good progress was made until what appeared to be good cracks with handholds on the short faces between the sloping ledges turned out to be smooth, vertical walls, needing pitons for direct aid climbing. At this point the two ropes split up, Mahre and Prater taking what was hoped to be a route to a snow ledge in mid-face, Anderson and Hebble staying on the right-hand edge. Both routes required tension climbing, Mahre and Prater having two 20-to-30-foot pitches, the second with a 6-foot roof to overcome. Anderson and Hebble had one tension pitch, using two bolts with several pitons. The fractures in the rocks are so recent that weathering has yet to provide good friction and handholds, especially toward the center of the face.

Since Anderson and Hebble had found access to the slabs above this first 1000-foot section, the other rope made a long traverse to their route past the Tree, the only one on this face. Easier rock, not requiring anchored belays, let the group attain a quick 500 feet, until another vertical section was encountered, probably the crux of the climb. Mahre led the first half, a 40-foot, Class Five lead requiring extremely delicate balance climbing. Prater led the easier overhanging chimney above, after which the second rope was belayed up as darkness fell.

A generous sandy ledge was soon located in the dark, the party sensibly deciding against further efforts up or down on the face by flashlight. With an anchor, the four made a sitting bivouac, drowsing off to sleep with the echoes of seracs toppling and falling the 1000 feet down the Ice Cliff Glacier as a not-too-gentle lullaby.

Starting again at sunup, it was decided to follow the 1956 Claunch-Rupley North Arete route rather than the 1958 Mahre-Prater variation which finishes the northeast face after traversing out on the upper face from the north arete. The first route is somewhat easier, and since no bivouac had been planned, the group was now well overdue.

Easy slabs lead 500 feet up the crest of the North Arete, below the North Buttress, and three hours from the bivouac all four were on top. Descent was via Ulrich's Couloir on the south side, with its sparkling stream of water welcome after the previous dry day on the slabs, hot from the burning August sun.

This is the most difficult route yet attempted on Mount Stuart, being one of the few climbs in Washington requiring both technical ice and rock skill. To climb this 3,500-foot route is a real pleasure.

GENE PRATER
YAKIMA CASCADIANS

NORTH FACE VARIANT ON LIBERTY BELL

On July 4, 1959, a new route on the east side of the north face—the second on this face—was climbed. The previous ascent of the north face had been made by way of the couloir entering the west side of the north face and then directly up as the couloir went left. We went up from the same point, then cut diagonally to the left instead of directly up. Approximately 300 feet of climbing led to the east side of the face. A further ascent of some 500 feet brought us to the summit. The climbing ranged from Class Four to Class Five, although two aid pitons were used out of a total of twelve persons participating in the climb included Fred Beckey and Joe Hieb. This completes the fourth route and, coincidentally, the fourth ascent of Liberty Bell.

ED COOPER

CLOUDCAP PEAK—MT. SHUKSAN TRAVERSE VIA JAGGED RIDGE

This most devious route up Mt. Skuksan was investigated July 12-13, 1959 by a party consisting of Tony Hovey, John Meulemans and Irene Wittlerova (now Meulemans.) The approach was via the Nooksack River to its head in the Nooksack Cirque.

The climb of Cloudcap Peak (the fourth ascent) offered one difficult section at a notch on the ridge northeast of the summit. Tony Hovey negotiated it with apparent ease and one piton. From the summit there was a good head-on view of the pinnacles which constitute Jagged Ridge. The remainder of the afternoon was spent

descending slabs and gullies south and west of the peak to a knob protruding from the snow. A platform of rocks was built, making a pleasant bivouac site.

At two A.M. next day, we had a quick breakfast and started off across a small glacier. We stayed as high as was practical, traversing the two miles or more of buttresses under the ridge proper. The rock was solid and it was not necessary to rope.

Following a slanting snow finger, we came to some steep rock scrambling. We crossed the upper Crystal Basin and scrambled up the summit pyramid of Mt. Shuksan. By this time, about one P.M., fog had rolled in.

We completed the west-to-east traverse of the mountain by descending via Hell's Highway to Lake Ann and Mt. Baker Lodge.

JOHN MEULEMANS

NORTHWEST FACE OF FORBIDDEN PEAK

One of the "problems" of the Cascades was climbed in the middle of July this year by a party including Fred Beckey and Ed Cooper. Hearing many grim things about the northwest face, we left the car late one morning and made it up some 300 feet of the face before darkness closed in, so that we might have a whole day to devote to the upper part of the fact. A small bivouac ledge was found. We reached the summit at 8 A.M. next morning.

The 1,500-foot route led up the arete which runs high onto the face, then followed almost a direct line to the summit. About eight pitons were used for safety and some might have been avoided by a different line in places. The approach to the face was made by crossing the Sharkfin col, contouring the Boston Glacier, crossing the north ridge of Forbidden fairly low, and then contouring another glacier to the right side of the arete. The descent was made by the usual northeast face route.

ED COOPER

SHARKFIN TOWER—SOUTH FACE

A party including Cecil Bailey and Ed Cooper climbed this route on November 7, 1959.

Fresh snow was encountered at about 5,000 ft. and by 7,500 ft. it was two to three feet deep. Perhaps the most hazardous part of the trip was the exposed traverse on 35°-45° slopes to the base of the south face of Sharkfin Tower, with old hard snow and some ice beneath the fresh snow.

The climb was done in three leads up the chimney which cleaves the south face. Ledges that looked good for belay spots proved illusory, sloping and covered with ice and snow. One belay had to be made in a stemming position, facing inward, in a vertical chimney with one foot braced against a wall, the other foot in loose snow. Only a secure anchor piton redeemed the belay.

The central 100 feet averaged about 80° and several large chockstones covered with water ice provide some interesting problems. About five or six pitons were used. In the conditions encountered the climb was Class Five, although under summer conditions it would probably be in the Four category. Four rappels on our 120-ft. rope brought us to the base of the rock at dark.

ED COOPER

SHARKFIN TOWER FROM THE WEST NOTCH

A new route up Sharkfin Tower, from the west notch, was made on June 20, 1959 by a party of Canadian climbers. The approach was across snowfields from the south, then two routes were made up the second buttress to the west of the prominent snow gully immediately below the tower. Leon Blumer, trip leader, led a party up the right (east) of the buttress, and Les McDonald led up the left, beginning with a pendulum rappel from the foot of the other route. The rock slopes the wrong way (here and on the west side of the tower), but is good and very pleasant except where wet.

Crossing the snow to the notch west of the tower, Leon led up the face rather than the ridge, which rises from the notch, over towards its southwest edge. Then Les led up cracks and slabs which were broken but sloped the wrong way. Reaching the edge, below a shallow scoop which looked like a possible route straight up, he chose instead to go around the edge, then up over an overhang (stirrups were used) 5 or 6 feet up the sharp edge, then right across a little chimney onto easy ledges over which we scrambled to the summit. About four pitons were used for safety, and two for the stirrups. The climb is Grade Four and Five, less than two rope-lengths, but allows very little room on stances and varied moves.

ELFRIDA PIGOU
ALPINE CLUB OF CANADA

NORTH-SOUTH TRAVERSE OF THE BROTHERS

The Brothers, prominent on the skyline west of Seattle, offers several unusual or little-done routes. On May 30, 1959, a party including Mark Haun and Neal Jacques made the first north to south traverse of the summit ridge.

From the East Fork of Lena Creek, we traveled over snow and through open forests on alternating sides of the North Fork. We then traversed hillsides below a continuous cliff barrier on the left and continued to the base of the cliffs which form the northern head of the valley. Here a timber bench followed by alternating brush and snow pitches led us southwest into the large basin which is visible from Seattle.

Progress through the basin to the base of the couloir between the North and Middle summits was tedious because of soft snow

and oppressive heat. We crossed a schrund and then ascended steep mushy snow to the col where we left our packs and made a rapid ascent of the North Peak.

Upon our return to the col, one of the best parts of the climb began. A narrow exposed snow crest led us to the Middle summit. The view south from here was startling. We became a bit more anxious about the ascent to the South summit every time we looked at its steep snow slopes. The first problem, however, was to get down to the notch between the Middle and South peaks. Two hundred feet from the Middle Summit, our purist urge vanished so we descended several hundred feet down the east side and then traversed a ledge system south into the head of the couloir. Some interesting snow mushing led to a ledge which gave access to the steep snow slopes leading to the South Summit.

This route offers a fine climb which should be accomplished before the melting snow of June exposes too much brush below the basin. The trip would be much more pleasant with a camp at Lower Lena Lake or at the previously mentioned forks.

NEAL JACQUES

NORTH FACE OF MT. WASHINGTON

The extension of the Jefferson Lake road now makes this approach usable. In May, 1959, Arnold Bloomer, Roy Harniss, Neil Jacques, Keith Spencer Don Anderson, Richard Hebble and Jerry Koch made the first ascent of this face following an approach up ridges, gullies and snow chutes.

NORTHWEST FACE OF MT. CONSTANCE

On a fine September day in 1959, Richard Hebble, Jim Richardson and I wandered in over the ancient terminal moraines of the Constance valley and excavated a camp from the detritus left by a now extinct glacier near the valley's head. On the following morning we ascended to Crystal Col with the help of the first eastern glow. Descending the pocket glacier to the north, we were forced by a huge bergschrund into a moat where the ice gave us a temporary start by dropping a several-ton chunk of ice right in our path. Near the lower section of the glacier a prominent red dike led us up the wall. The first pitch yielded no piton cracks, and Dick negotiated a bulge about 100 feet up on small holds. Above, a moderately interesting pitch brought us to a ledge where a piton protected our attack on the next section of the dike. Our enthusiasm was dampened for a short time when a very rotten section was found to be the key to entering the narrow chimney above. A few pitons were driven, but after insertion proved to be only good as wedges to loosen more rock. Finally a good piton gave me a chance of surviving, should the whole vein peel away from the face, as it threatened to do. Considerable

scrambling and several enjoyable pitches of Class Four were encountered in the next thousand feet before we joined the main ridge and raced to the summit under a bitter wind.

DON ANDERSON

MT. PERSHING FROM THE EAST

This early-season climb was first done in May 1959 from the end of the extended Jefferson Lake Road by Roy Etten, Robert Woods, Jack Christensen and Don Bechlem. Route finding was the only problem.

BUGABOO SPIRE—WEST FACE

On August 5, 1959, a climb of the West Face of Bugaboo Spire in British Columbia was made by a party including Elfrida Pigou (Vancouver, B. C.) and Ed Cooper. The route started at the large talus cone at the base of the west face. From the talus cone a large diagonal ledge leading up and to the right was followed for some 600 feet. The day was cold, and fresh snow and verglas from a storm the day before made progress on the slabby rock slow. Leaving the ledge we traversed up and to the far left skyline to a large ledge, prominent on the west face. The only technically difficult climbing was encountered above this ledge. We used seven pitons for aid on a 120-degree overhang enclosed in a wide chimney. In short while we arrived at another diagonal ledge leading up and to the right, this one running immediately beneath the "great white wall" of the west face, a 1,500-foot wall of 90 degree, smooth white rotten granite.

The ledge ended in an inside corner which led to a ridge. We dropped slightly down on the other side of the ridge into a wide shallow gully. The west face of Bugaboo is quite complex, with many minor ridges and gullies. At this point we climbed upward several hundred feet and slightly to the right to what we thought was a subsidiary ridge of the west face. Upon reaching this ridge we found that we were on the south ridge of Bugaboo itself, just below the gendarme and some 250 feet from the summit.

In less than thirty minutes we were at the west summit, watching the setting sun. We reached camp long after dark.

Some 14 pitons were used on the ascent of the 2,500-foot face, half of them in the one difficult section.

ED COOPER

BUGABOO SPIRE—WEST FACE

An ascent of the west face of Bugaboo Spire was made by Fred Beckey, Pete Geiser and Roman Sadowy during the second week of August, 1959. From a late morning start at Boulder Camp, an intended reconnaissance became so involved that we decided to complete the climb, which was done just before darkness and an approaching storm.

The ascent was entirely Class Five, and involved some difficult moves in a chimney and on the final two leads to the west summit arete. This last section featured a difficult layback and the "smallest possible" slab holds.

FRED BECKEY

EAST FACE OF SNOWPATCH SPIRE

The final conquest of this, the most apparent wall in the Bugaboos of British Columbia, was the culmination of a great deal of planning and reconnaissance, besides the hammering and gymnastics involved.

The ascent to the main summit was made August 5 through 7 by Fred Beckey and Hank Mather of Vancouver, B. C., with a support party on the ground, fixing the route on the first five leads off the glacier. The two nights on the face were spent in a bivouac sack, while sitting on a ledge and tied to pitons.

The wall is 2,050 feet in height. The first third was almost entirely direct aid up a crack system that ran through three major overhangs; the second third was mixed difficult fifth class and easier sixth class; the final third was fifth class. Equipment used included about 160 pitons, eight bolts, and some wedges.

As an example of the difficulties encountered, the first lead off the glacier took 7 hours and ended overhanging the bergschrund. The first five pitons took us up an overhang *below* the level of the schrund, and the higher "moss" overhang required cleaning at least 40 lbs. of slimy dirt out of the aid cracks. Fortunately, the route became cleaner; in its honor we named the next major bulge the "white" overhang.

FRED BECKEY

WEST FACE OF SNOWPATCH SPIRE

While climbing on the lower leads of the east face of Snowpatch, it was felt a short change of scenery would be welcome, in the form of a new route up the west face. This climb, via the great central "V" to the notch between the summits, was done on July 31, 1959, by Fred Beckey, Hank Mather, Brian Greenwood, and Elfrida Pigou. The last two leads beneath the notch required some extreme fifth class climbing. Seven bolts were placed, largely for protection, in the absence of much-needed piton cracks. Some of the bolt-drilling stances were quite acute. The final lead to the notch involved a pendulum into a difficult crack that required our supply of giant angle pitons. From the notch it was a short scramble to the north summit.

FRED BECKEY

MOUNT SLESSE—NORTHWEST FACE

On a doubtful weekend in June, 1959, Fred Beckey, Don Claunch and I set out to climb the northwest face of Mount Slesse in British

Columbia. For me, this was a new experience in Cascade brush fighting. The first day was spent in fighting our way up some 3,000 feet from the usual southwest approach, starting at about 1,000 feet. Brush and windfalls were the rule. We apparently chose the rib to the left (west) of the easiest approach to timberline. We traveled light, using down parkas to bivouac when overtaken by darkness.

Reaching timberline the next morning, we contoured to the northwest side, dodging the heavy clouds and relying on Fred's previous knowledge of the peak. A 300-foot couloir leads to the north notch of Slesse. We left the couloir somewhat below the notch and contoured about 250 feet to the right (south) to a 250-foot ridge which ended at the base of the northwest face some 500 feet below the summit. The climbing was Class Four and Five; seven pitons were used, liberal for this climb. The clouds cleared dramatically as we reached the summit, and early evening views of the Border Peaks were obtained. Another bivouac was necessary on the descent.

ED COOPER

GOOSE ROCK, SQUAMISH

Goose Rock, at the head of Howe Sound, is becoming attractive to the rock climber with the recent opening of the new road to Squamish, British Columbia. The west and north walls rise virtually from tidewater to 1,900 feet in a sweep that is well over two miles wide. The rock is granodiorite, and though there is moss and brush in some cracks, there are many sheer and clean walls. The rock is slabby in nature but holds are generally solid. There is an easy route, for the descent, on the south side via woods and a surveyor's trail along the creek bordering the rock, but there is no easy face route up the rock. The great central gully has two different pitches, (one is partially Sixth Class,) but is otherwise scree or scrambling.

The first complete wall route, done in May, 1959, climbs the entire rounded ridge and the upper wall to the right of this central gully. The first thousand feet was Class Five with the exception of a short overhang. The party, Fred Beckey, Don Claunch and Hank Mather of Vancouver, returned to complete the route on a succeeding weekend. The culminating pitch, a 140-foot sixth class vertical wall, gives one a superb panorama of Howe Sound, the tugboats, the trains and Mount Garibaldi. There are further route possibilities—some will take two or three days to complete.

FRED BECKEY

MT. WADDINGTON AREA

Have you ever considered the Waddington Area for a one or two week vacation? Too remote? On a nine-day trip during the past summer five Seattle Mountaineers—V. Josendal, M. Muzzy, P. Sharpe, D. Watson and W. Spickard—reached a point 500 feet from the summit at the bottom of the southwest chimney before falling snow and ice forced a retreat.

After work Friday, a four-hour auto trip to Vancouver, B. C., a ferry to Nanaimo, a few hours of sleep and a three-hour drive brought the climbers at 9:30 A.M. to the B. C. Airline's dock at Campbell River. A de Haviland "Beaver" float plane which will carry 1,100 pounds of passengers and their baggage facilitates rapid entry to the area. A two-hour flight to Ghost Lake ($250 for chartering the plane for the round trip) and a five-hour hike brought the party to Nabob Pass, one of the most beautiful mountain areas of our acquaintance. Situated in the ridge between the Tellot and Tiedmann glaciers, the pass contains three sapphire lakes, beautiful alps, considerable firewood and relatively few mosquitos. We had arranged with an outfitter, Adolph Bitterlich, to have a food supply and tent at Nabob Pass. This relieved us of one day's packing and facilitated the most direct approach to our objective.

Situated as it is in the heart of the area, Nabob is an ideal base camp. From it, a high camp at 12,000 feet on Mt. Waddington can be established in three days. Climbs in the Marcus Smith Group and Serras across the Tiedmann can be made in one day from this camp as well as climbs in the nearby Claw Peaks which are composed of excellent rough granite. For peaks on the upper Tellot such as Tiedmann, Asperity, Stilleto, and Dentiform a high camp in the upper Tellot basin should be established. The weather is frequently unsettled and it snowed on the higher summits nearly every day. However, there are enough sunny periods so our time schedule was only delayed one day.

The exit was made from Ghost to Dumbell Lake in two trips. From the lower lake the whole party was carried to the coast.

Even though we didn't make the summit we were all deeply impressed by the beauty and wildness of the area and hope this report will encourage other climbers to avail themselves of this really top-notch region.

W. B. SPICKARD, M. D.

NEW ROUTES ON ROCK

SNOW CREEK WALL

This 700-foot wall was first climbed in 1958. John Rupley, Don Claunch and Fred Beckey reached a ledge in the central portion of the wall by a five-lead face route of mixed fifth and sixth class climbing. On another occasion the climb was completed by following the great ledge around a blind corner where a bolt was used to substitute for the lack of handholds. The route dropped ten awkward feet to a lower ledge, then made a two-lead catwalk across the face. The final portion is not difficult.

In May, 1959, the same party climbed the wall via a long chimney system, (the left hand of the twin chimney systems toward the right portion of the wall as seen from the Crags trail.) The climb involves

about six leads and is virtually all fifth class, with the exception of three very short sixth class spots. One safety bolt (permanent) was used near the top of the long, overhanging chimney of the second lead.

FRED BECKEY

In August 1959, a party including Galen McBee and Ed Cooper spent two days climbing the (previously untouched) south portion of the wall. Over 50 pitons and five bolts were used on the route, tagged "Remorse." Two left pendulum maneuvers were done at about 200 feet, and bivouac was made on a ledge to the right at about 300 feet. A difficult move was necessary to get above this ledge. The finest lead went to Galen when he made a 140-foot lead on an 80 degree face, using very small holds formed by weathering of the granite. Virtually no piton cracks were available here. The rim was reached just in time to avoid another bivouac. The climbing was continuous, mostly Class Five. Aid was used in four places and double rope technique was used throughout.

The "Tempest" chimney route was climbed by a party including Edward Cooper and Jack Miller. This was Class Five level with the exception of 30 feet of Class Six at the start. A wood wedge, a bolt and 17 pitons (three for aid) were used.

EDWARD COOPER

MT. TEMPLE—EAST FACE

On June 7th, 1959, Fred Beckey and Don Claunch participated in a climb of a new route on the east side of Mt. Temple. From the saddle between Razorback and Temple, they followed Class Three Rock along the ridge to the final tower. An unexpected, hidden chimney was found and a long vertical lead on excellent granite led to the top. One piton was used for safety.

CRUEL FINGER

In the spring of 1958, a party including Fred Beckey and Don Claunch climbed this granite spire which rises just east of Nocturne Tower. The route involves an interesting, steep chimney on the north side; then, from a ridge niche, it works left around a vertical corner on angle pitons and then directly up about 75 feet. Because most of the pitons and wedges placed were of questionable virtue, two bolts were used to increase the safety factor.

FRED BECKEY

VASILIKI TOWER

In early June, 1959, a party which included Ed Cooper and Al Murdach completed a route on the south face of this tower which also proved to be the second ascent of the Tower. Following a direct line

to the summit from the notch between Burgundy Spire and Vasiliki Tower 300 feet of enjoyable Class Four climbing was encountered. The last lead proved to be a high angle slab with finger and toe holds, which was capped by an overhang. Chinning over this on a good hold brought us within ten feet of the summit. One solid piton was used on the last lead. Descent was down the Class Three north side.

ED COOPER

SHEEP GAP MOUNTAIN—SOUTH FACE

A party led by Tony Hovey climbed this primarily Class Four route in mid-summer, 1959. *The Ram's Horn,* a subsidiary point, was also climbed this year.

INGALLS PEAK—SOUTHEAST FACE OF THE EAST PEAK

Gene Prater, Don Anderson and Jim Richardson climbed this face in slightly over four hours. Some Class Five climbing was involved.

MT. CRUISER

West face: In July, 1959, Don Anderson and Roy Harniss participated in the first ascent of this face, which was consistently Class Four and required iron for safety on occasional leads. The ascent was completed in six hours.

East face: This 250-foot wall, which was consistently Class Five, was first done in August, 1959. The party, which included Jerry Koch and Don Anderson, reported that some very difficult climbing was encountered.

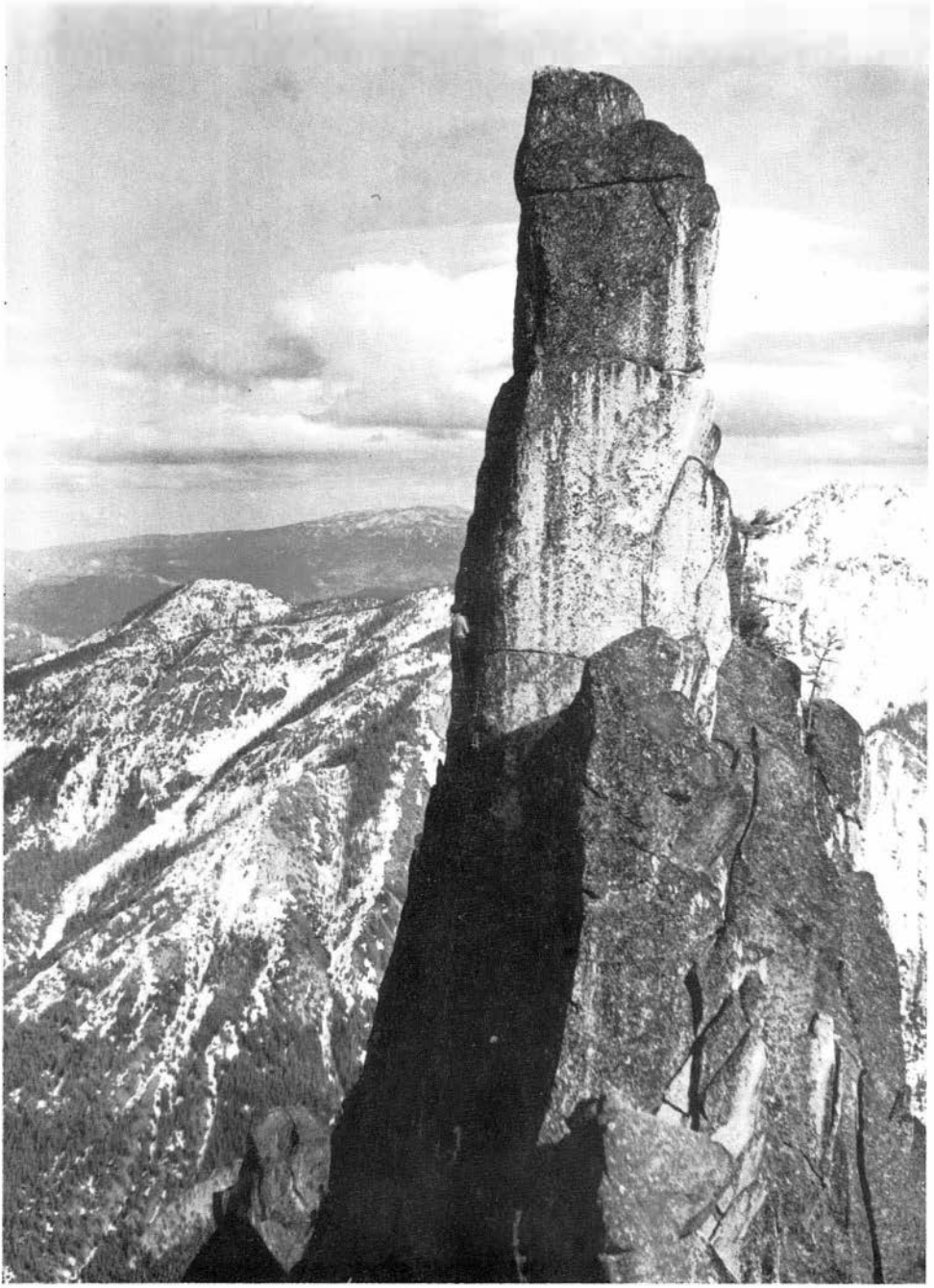
TUMWATER CANYON

West Tumwater Rock: The route up the outer edge of this rock, mostly Class Six, was completed in the spring of 1959 by Fred Beckey, Ed Cooper and Don Claunch. Joe Hieb had led this route to within two pitons of completion the previous fall.

Jupiter Rock—"Direct" Route: In May 1958, Dave Collins, Fred Beckey and Ed Cooper followed a thin line of cracks and ledges up the center of the rock between two large white overhanging walls. This route involves fifth and sixth class leads. The rock is unusually sound.

Jupiter Rock—"Circuit" Route: In June 1958, a party including Don Claunch and Fred Beckey started at the same point as the "Direct" route. Their route turns sharply left on a ledge system to the eastern portion of the Rock. Here, when the system abruptly terminates, two fifth class leads gain the summit ridge. Six most enjoyable leads directly up the ridge lead to the summit, or exits are available to the gully system behind the rock.

Cloudcap Peak and Ridge leading to Mt. Shukshan — *Tom Miller*



Climber on Cruel Finger *Tom Miller*

Midnight Rock—"Great Traverse" Route: This new route, to the right of the Twin Cracks route, was climbed May 17, 1959, by Don Claunch, Fred Beckey and Frank Tarver.

The initial one-and-a-half leads remain the same, using the aid crack and diagonal cracks to the big ledge beneath the twin cracks. Here the "great traverse" is made, using the feet on the ledge crossing the blank wall, south of the ledge, and inching the hands along minute holds. Eventually one can sit down and complete the traverse from a lower position. From the block atop a short chimney lead, the final open-book chimney veers left of the great granite block atop Midnight Rock. The first move into the chimney required a giant wood block for leverage. (The block was left in.) From then, the route is difficult Fifth Class up the crack, using a number of pitons and wide wood blocks. The final crack overhang is avoided by a delicate left traverse around a corner.

FRED BECKEY

Midnight Rock—"Widowmaker" Route: Ron Priebe, Ed Cooper and Irv Dunn climbed this route in May, 1959. Starting from approximately below the large, balanced rock, this Class Five to Six climb required 14 pitons.

Castle Rock—Century Route: In the spring of 1959, the last clean route left on Castle Rock was climbed by a party including Bruce Gibbs, Ed Cooper and Ron Priebe. Simple and direct, the route followed the long rib just to the right of the Sabre chimney. No bolts were used, 17 pitons sufficing.

Rattlesnake Rock—"Viceroy" Route: Starting at a large cleft in the rock near its east corner, the route is mixed Class Four and Five. Climbers were Ed Cooper, Fred Beckey and Don Claunch.

PESHASTIN PINNACLES

Grand Central Tower:Don Claunch, Ed Cooper and Galen Mc Bee climbed the central chimney in the east face during April, 1959. Climbing was Class Five and Six. Wooden wedges, wide angle pitons, bolts and regular pitons were required.

Grand Central Tower—South Corner. This new route was established in November, 1959, with leading done by Frank Tarver and Fred Beckey. The climb involved the use of about 12 pitons and 12 bolts; much of the iron was used on extremely friable and insecure rock. At one point it was found pitons could be hammered directly into the rock without requiring a crack. We thought this might revolutionize Pinnacle climbing methods, but soon found that this was not generally possible. Since most of the iron was removed, the climb is not particularly recommended for repetition. Some of the flakes and cracks holding pitons on aid pitches were so loose that they came out during their use by the second man, and could only be used with a division of weight on several pitons.

Dinosaur Tower—North Corner: This route was climbed in May, 1959, by Don Claunch, Frank Tarver and Fred Beckey. It is a one-lead Class Five climb with the exception of the use of one permanent bolt on the last leaning wall just below the main ridge step. The route begins from the east side of the notch above the tower.

Dinosaur Tower—Northwest Face: A route was placed on this face by Frank Tarver, Fred Beckey and Herb Staley. The crucial section is an overhanging bulge, climbed with several pitons and bolts for aid. From a ledge above this bulge the final lead is fourth class.

FRED BECKEY

TOO MUCH IRON

Climbers who regularly practice-climb in the Peshastin Pinnacles have reported an influx of bolt-placing on already-established routes. Routes generally have been done with sufficient bolts for protection and the nailing of extra iron serves only to ruin the routes for others. Removal of the bolts damages the rock and provides unnecessary holds.

Similarly with standard routes on Castle Rock in Tumwater Canyon—a number of pitons have been purposely left in routes such as Midway, Angel, Sabre and Cat Burglar to help save time on repeat climbs. If these pitons are continually replaced a number of usable cracks will be destroyed. I believe the set iron should stay in— it will save everyone time and increase the safety factor. This is not to infer that all iron is "solid"—each piton should be tested.

FRED BECKEY

BOOK

REVIEWS

Edited By JOY SPURR

KETTLE OF FIRE. By H. L. Davis. William Morrow & Company, New York, 1959. 189 pages. $3.95.

Probably each Mountaineer reader of *Kettle of Fire* will find a passage or two so full of the flavor of his own experience in the back country of the Pacific Northwest that it will seem to have been written especially for him.

The author, winner of a Pulitzer prize for fiction, grew up in this region and writes of it with perceptiveness, humor and style. Revisiting after twenty years, he sees that which has changed and that which has not. In one chapter he strikes a serious note as he describes a deep ash-green lake which was created many years ago when a power dam was built and is now completely accepted by vegetation and wildlife. Every afternoon the water level rises to meet the power needs of distant cities and as it comes up the fish rise with it from among the drowned cabins and orchards at the bottom and feed in the sunlight. Being there is like being suspended between two worlds, the author says. He seems to see the Northwest, like the lake, suspended not unhappily between the world of nature and the world of civilization.

The book is a collection of magazine articles, most of them about the Northwest. Accuracy is not their strong point. For instance, Seattle's annual rainfall is 31.92 inches, not 58. But what matter? The author is a wonderful companion on trail or road.

ELLEN L. WALSH

HIGH WORLDS OF THE MOUNTAIN CLIMBER. By Bob and Ira Spring and Harvey Manning. Superior Publishing Company, Seattle, 1959. 142 pages. 106 photographs. $10.00.

If inaccuracy of dust-jacket blurbs portends a best seller, this new photo-book is headed for success. Touted as "the first comprehensive book of the Northwest mountains," it is, more precisely, Northwest generously infused with California, Colorado, Canada, Wyoming and Alaska. Harvey Manning's text absorbs these geographical jumps with aplomb, all the while purveying "the feeling."

Such scenes as the young man inviting a faceful of crampons (p. 97) and the young lady stepping a crevasse while belayed, if at all, from its depths (p. 37) are more likely to dismay than please the seasoned climber, and views of serac chopping and crevasse leaping will

be of interest primarily to those whose impressions of mountaineering are wholly vicarious. But the magnificent views of the Ptarmigan traverse and points north will appeal universally and are worthy additions to mountain literature. The camera technique throughout the book will sustain the Spring's considerable reputation.

STANLEY WORSWICK

A YEAR IN PARADISE. By Floyd Schmoe. Harper & Brothers, New York, 1959. 235 pages. 23 photographs. $4.50.

A review of *A Year in Paradise* is more than the review of a book. It should be, as well, a brief review of the national, regional and community service, and the family life, of its inspired and dedicated author. Personal highlights on Floyd Schmoe include the fact that he was born and has lived a loyal Quaker. His institutional education was concluded in the College of Forestry, Syracuse, New York, and at the University of Washington, Seattle. Since then his research and services in the main fields of earth science, forestry, botany, geology, geography, have never halted. The publishers, Harper & Brothers, state that Floyd has "traveled on the trail of nature throughout the world . . . Lebanon, Kenya, Tanganyika, Iraq, Thailand, England, France, Germany."

To date, he has published four books and countless nature articles of real charm and permanent worth. Floyd, and his equally nature-loving wife, Ruth, are living in Seattle, where, cloud, haze, fog and storm permitting, Mount Rainier, strongly and beautifully dominating the distance, looms up before them.

A Year in Paradise is mainly the four-seasons lived, loved and remembered experiences of the Schmoe family on and around the nation's most visited and most personal mountain, Mount Rainier. The book opens with the detailed honeymoon trip of Floyd and Ruth, on snowshoes, over the six-mile-plus rugged and steeply rising trail from Longmire to Paradise Inn. With sly wit and easy writing style, Floyd brings out an often missed truth that trail suffering, endured and survived, becomes the fondest reminiscence as years slide past.

To the reviewer, the never-failing charm of Floyd's *A Year in Paradise,* is that he blends the narrative so naturally from one to the other of the main fields of mountain recreation. To him the wildness of stunt climbing, the driving of nails and hooks, and the stringing of ropes to beat the wiles of "Old Man Gravity" are but one field of allurement. While he never belittles this field of mountain violence, he blends it well with that of bird, bee, butterfly, flower, berry and mountain goat, the foothill forests with their trails and campfire joys.

Floyd Schmoe, in *A Year in Paradise,* has given us a masterly presentation of the facts and the techniques to combine an invitation to outdoor living. He has drawn it joyously from his winters, his springs, his summers and his autumns on and near Mount Rainier.

JOSEPH T. HAZARD

RECREATIONAL USE OF WILD LANDS. By C. Frank Brockman. McGraw Hill Book Company, New York, 1959. 346 pages. $8.50.

In this treatise, the interpretation of "recreation" evolves from the viewpoint of the populace. The author traces the recreational development of American wild lands from colonial times, emphasizing the importance of their natural values which became the prime factor in moulding interest in the outdoors. The reporting of associated problems and their resolution is undertaken in a detailed discourse.

As for the use of areas, proximity to the masses accounts for the overwhelming attendance of municipal and county parks. State parks, national parks and national forests draw progressively fewer visitors, notwithstanding their greater natural values. In spite of this tendency, many of our national parks are seriously overcrowded. A program of further development of our municipal and state park systems would help alleviate this situation. The author tells us unequivocally that our national parks will retain their distinctive character only so long as we use them properly and provide for their protection.

The past and present systems of administrating recreational areas, whether local, state or national, are meticulously reviewed. Statistics are used throughout the text to stress pertinent data. The author concludes this notable work with a chronicle of principal wild areas in other countries.

H. W. ALBRECHT

THE PUMA'S CLAW. By Simon Clark. Little, Brown & Company, Boston, 1959. 223 pages. 22 photographs. $4.95

The Puma's Claw is a typical modern mountaineering success story, designed to attract both the casual reader and mountaineering adherents. It portrays the determination of the objective, planning of equipment, supplies and organization, finding the climbing route on the mountain and the solutions of various difficulties encountered. The objective was Pumasillo, a 20,840-foot giant of the Cordillera Vilacamba of Peru. The story is summed up in paragraph two of chapter one, "We climbed Pumasillo."

The exciting thing is the youth of this 1957 expedition which averaged only 22 years of age, although all were veteran climbers experienced in the Alps. Wisely using techniques and equipment based on Himalayan climbs, they were able to make the summit within five days from base camp, setting up three high camps enroute. From a writing standpoint, the book begins in a rather dull fashion but improves as the story progresses until we find such apt phrases as the description of the peculiar appearance of equatorial Andean snow that "clung to the precipitous slopes like crinkly dough, slapped indiscriminately against the walls."

Sir John Hunt, in his foreword for the book, says "What makes it a joy to read, is the spirit in which this enterprise was carried through from start to finish; a spirit which has outlasted the enterprise itself." The author says they made the climb "just for the hell of it."

ARTHUR WINDER

THE STONE AGE OF THE COLUMBIA RIVER. By Emery Strong. Binford & Morts, Portland, 1959. 254 pages. $3.95.

The amateur archaeologist as well as any reader who is interested in the story of a little known but fascinating race of people will find *The Stone Age of the Columbia River* worthwhile reading. The author, Emory Strong, is an engineer living in Vancouver, Washington, and a past president of the Oregon Archaeological Society. He bases his facts on actual field work in the area from the mouth of the Columbia to the Snake, during past years as well as during the recent excavations, searching for priceless artifacts before they are forever entrapped under the waters behind the great dams. He has done research into past history and makes many references to the diary of Lewis and Clark when they explored this region.

Part I gives in detail the geography of the region, showing with detailed maps and charts locations of Indian campsites, burial sites, a native flint quarry, houses, and canoes used from prehistoric time down to the dawn of Northwest history.

In Part II he delves into Indian culture relating it to tradition and folklore, and describing the strange and mystic carvings on the rocks in the Long Narrows of the Columbia. Arrows and arrow making, clubs, tools, bowls and pestles, adze blades, wedges and mauls, mat making, dentalia shells are all described, photographed, and labeled. More than a hundred photographs, most of them Strong's own work, illustrate his findings.

Part III is devoted to trade goods, such as Lewis and Clark medals, Northwest Company tokens, buttons, glass beads, copper ornaments, and trade axes.

Part IV describes methods and techniques for the amateur relic hunter, telling how each excavation is made, how the relics are dug, photographed, labeled, and preserved. Included is a code of ethics for the amateur archaeologist. A good index and a bibliography add to the value of the book.

Told easily and informally in simple terms, *The Stone Age of the Columbia River* is a helpful study, a complete and authentic record of early life in the Northwest, and most interesting reading.

WINIFRED MULLANE

ADVENTURE IS UNDERGROUND, The Story of the Great Caves of the West and the Men Who Explore Them. By William R. Halliday, M.D. Harper & Brothers, New York, 1959. 206 pages. 63 photographs. $4.50.

Have you ever dreamed of swimming through icy water in absolute darkness with nothing but a candle in your teeth and matches in your bathing cap? Then cave exploring is the sport for you! Actually, this is the style of caving pioneered decades ago by the French explorer, Norbert Casteret. When William Halliday, author of *Adventure Is Underground,* and his companions decide to go underwater in a

California cave, they are equipped with Aqua-Lungs and modern techniques and explore places Casteret never would have seen.

Different caves present different problems. All the resources of mountaineering were demanded for the Salt Lake Grotto's arduous descent in Neff Canyon Cave, America's deepest. Often the chief difficulty is finding the cave. Old newspaper files and local legends have provided the key to many adventures far under the earth.

The book contains lore about many of the caves of the western United States. The shrewd "underground" operations in the Modoc Indian war and the beauties of the lower level of Carlsbad Caverns each have their place in its pages. The case for science and conservation is suitably emphasized by the author, a member of the Mountaineers. In the interests of zoology, Dr. Halliday has even had bats "hybernating uncomplainingly" in his refrigerator.

Not a reference work, *Adventure Is Underground* aims to entertain and educate. There are good photographs of speleological activities but no detailed maps or technical information. There is, however, a description of basic safety procedures and lists of commercial and beginner's caves. Many Mountaineers will already be familiar with some of the ice caves on Mount Rainier.

A good place to begin caving is in an armchair with Halliday's book. Then perhaps someday *your* hard hat will be banging against the roof of some torturous crawlway.

WILLIAM FARIS

ON YOUR OWN IN THE WILDERNESS. By Townsend Whelen and Bradford Angier. The Stackpole Company, Harrisburg, Pennsylvania, 1958. 335 pages. 48 photographs. 18 sketches. $5.00.

"Gradually it occurred to both of us that it was well worthwhile to put on record the old but time-tried ways of the wild before they were lost forever in a mass of modern technology based on impractical impediments," state the authors of this book. Unfortunately, the "old but time-tried ways" are lost—not forever, perhaps,—in a mass of poorly organized material ranging from panning gold to cooking porcupine, with some good advice on camp stoves, sleeping bags and map-making sandwiched in between.

Essentially a collection of opinions on techniques and equipment for wilderness living. *On Your Own in the Wilderness* is slanted toward hunters more than any other group of outdoorsmen, colored by the personality of Colonel Whelen, who has spent a good part of his eighty years living "back of beyond." The writing is from Whelen's point of view, and although he refers to Angier, saying, among other remarks, "my writing sidekick" there is no indication anywhere of Angier's part in writing the book.

Whelen's style is slightly cumbersome at times, but his feeling is genuine and his personality comes through in every chapter. The basic fault of this book is that it is too general and unnecessarily long.

Although it would seem to be a reference work on wilderness living, it lacks an index; and because of its loose organization specific information is not always easy to find. Despite all this, the book contains much that is worthwhile, i. e., the two chapters on tents are specific and informative.

In conclusion, Whelen writes, "Life is very good." It is clear that he believes this is so only when one has escaped from the "steel bones and asphalt veins of the big city . . . where men . . . stalk meat in the crowded market and live in the steaming asphalt swamps."

ANNE K. CURTIS

In Memoriam

1959

Gary Alexander

Cornelius Barry

T. D. Everts

Elizabeth Gorham

Donald Grimlund

Claire McGuire

W. Wallace Reid

Celia Shelton

ADMINISTRATION

AND COMMITTEE REPORTS

NOVEMBER 1, 1958 - OCTOBER 31, 1959

The membership of THE MOUNTAINEERS once again increased, during the term of this Administrative Report. On October 31, 1958, club membership stood at 3,659 while a year later, October 31, 1959, total membership had risen to the figure of 3,827.

The varied activities of the club continued in full stride, and in general with increasing scope and attendance. During the year the Board of Trustees for the club also considered certain matters of general administration and policy.

A letter was received from the U. S. Treasury Department which denied the Mountaineer request for classification as an education, scientific, literary and testing for public safety organization, which would have allowed a tax exempt status for money received as bequests and gifts to the club. After due consideration, it was decided not to appeal this decision. Extensive negotiation by the club with an owner of property adjacent to the *Rhododendron Preserve* led to a legal suit. The issue concerns use of the Mountaineer Property access road, which lies across a corner of the adjacent property. The original suit being lost, a motion was passed to carry this suit to the State Supreme Court, and this appeal is now pending.

After consideration it was determined by the Board that the organization of the Educational Division was unwieldy, and therefore the new *Conservation Division* was established, and the Educational Division abolished. The decision was made to sell Series H Bonds now owned by the club and to replace them by U. S. Treasury Bonds paying higher rates of interest, this action taking place at the discretion of the treasurer.

The Board established a new *Finance Committee,* which reports directly to the Officers of the Club and Trustees without being associated with the Divisional Structure. The purpose of this committee is to study long-range financial needs and means of fulfilling them. Another special committee, that for *Book Promotion,* was very active during this operating year. Through its efforts, the Board of Trustees approved the text of the mountaineering book, authorized the committee to go ahead with securing pledges and arranging financing, and also to proceed with manufacture of the book with Vail-Ballou Press designated as printer.

Activities of the Club, now organized along Divisional lines, pro-

ceeded smoothly. In the *Administrative Division,* the *Club Room Custodian* put the club piano up for sale, following the approval of her request by the Board of Trustees, and utilization of a Patrol Service was discontinued. *Insurance* on the Mt. Baker Cabin was raised to a total valuation of $12,000. As an aid to the *Membership Committee,* with Board approval, a new membership brochure was prepared and printed, and illustrated with several well chosen photographs. The format of the *Program Meetings* was revised, with the hope of creating more interest in this activity. Under the new format, the first half hour of the evening is devoted to general discussion of some problem of Mountaineer administration or policy, followed by the scheduled entertainment.

Within the *Indoor Division,* the *Annual Banquet* at the Chamber of Commerce Auditorium was successful, with 231 in attendance. Billie Marie Gannon, well known for her appearances on television following a contest-won trip to Europe and Africa, was speaker at the April 19 function. At the Banquet, the *Mountaineer Service Award* was presented to Roy Snider. Roy has been a member since 1941, has served as a Trustee and as chairman of several committees, and is well known for his enthusiastic and frequent attendance at club work parties as well as at recreational activities. Indoor activities such as *Bridge, Folk Dances,* and *Dinner Meetings* continued to attract a faithful group of Mountaineers, while the *Players'* presentation of "Donegal Fair" attracted a huge crowd of 2,400 at the three performances on June 7, 13, and 14. This production centering around Irish village life was actually four short plays, and seemed to fit very well into the Forest Theatre setting.

Life in the *Outdoor Division* was more active than ever. The *Campcrafters* conducted their Annual Gypsy Tour through the Cascade Mountains of Central Oregon from August 1-16. Seventy-three people attended. The *Campcrafters* also sponsored nine weekend trips, a Potluck dinner, and a Camping Lecture, with an average attendance of 27 on the weekend trips. The *Climbing Committee* had a successful year, with 210 students attending the Basic Climbing Course, and 117 in attendance at the Intermediate lectures. The new one-day roped climb schedule proved to be very popular. The *Expedition Committee* was dissolved through Board of Trustee action and its functions taken over by the *Climbing Committee.* The average attendance at the monthly *Photographic Meetings* was twenty-five, with two field trips being scheduled besides the regular program meetings. The *Safety Committee* arranged for scheduling of Red Cross First Aid Courses for the benefit of club members. Forty-eight people took advantage of this. First Aid Pamphlets with material drawn from the new climbing textbook were reproduced and sold. The *Ski Tours Committee* scheduled thirteen ski tours and six ski climbs, with an average attendance of 15 per trip. However all of the ski climbs but those to Camp Muir and Mt. St. Helens were cancelled because of lack of sign up. The re-activated *Special Outings Committee* planned three trips by chartered bus for members,

as a foundation for future increased activity. An article concerning the *Summer Outing* to the Wind River can be found in this Annual. The *Trail Trips Committee* drew 915 persons to their 36 scheduled trail trips, and this figure does not include those attending the two boat trips and eight snowshoe trips co-sponsored with another Mountaineer activity. These snowshoe trips, also sponsored by the *Viewfinders,* were attended by a total of 309 people, and the 28 Viewfinder climbs had an attendance ranging from 7 to 44 per party, and 655 in total attendance. The busy Viewfinders also serviced 56 mountaineers who attended the Mountain Hiking Course.

Within the *Property Division,* lodge operations continued in the usual pattern. The new lodge at *Mt. Baker,* in operation for the first time, was well attended. Generator problems provided some mild excitement, but these were solved in time for the second season of operation. *Snoqualmie Lodge,* operated on a concession basis, was as popular as ever, especially for family skiing by the day. The *Publications Division* seemed to have no difficulties, with *Annual, Bulletin,* and *Library* running without difficulty.

The *Conservation Division* was very active in support of the Wilderness Bill, arranging for Mountaineer representation before U. S. Senate Interior and Insular Affairs Committee hearings, November 7, 1958 in Bend, Oregon and March 30, 1959, in Seattle. Intensive field study by members of the Division led to an official recommendation by the Board of Trustees of minimum boundaries for a Glacier Peak Wilderness Area. In October, hearings were held on this subject by the U. S. Forest Service at Bellingham and Wenatchee. Many groups and individuals outside the club gave support to the Mountaineer-recommended boundaries. Plans were also laid to seek Congressional permission for a study of the area from Stevens Pass north to the Canadian border to determine what portions might be suitable for inclusion within the National Park System. *A Good Outdoor Manners Unit* was established to undertake a public educational program concerning problems of wildwood vandalism. Other divisional activities included preparation of a 36-page report concerning the effect of Glen Canyon Dam upon Rainbow Bridge National Monument, and a field trip to study the Goat Rocks Wild Area. At the suggestion of the Conservation Division, the Board of Trustees passed motions to urge a National Park Service survey of Crystal Ball Cave, Utah, for possible inclusion with the National Park System; to join the International Union for Conservation; to establish a Mountaineer policy on dams to the effect that the Mountaineers support the construction of dams when no significant loss in recreational, scenic, scientific or wildlife values occurs.

Tacoma Branch Report

The early part of the 1959 climbing season was dogged by bad weather; with sunnier skies following and a full program giving everyone who wished an opportunity to climb, a successful year was had. Many private climbs were made in addition to scheduled trips, and at the end of the season six persons received six-peak awards. Twenty-three persons graduated from the basic climbing course and fourteen from the intermediate. A serious accident on Mt. St. Helens caused the climbing committee to tighten controls on climbing of glaciered mountains.

Trail trippers visited such new places as the Dennie Ahl lookout near Lake Cushman, the Muckleshoot Indian reservation on the White River, Flapjack Lakes, and the Cowlitz Divide. On a two-day May outing to Pacific Beach and Point Grenville, they walked on the beach, saw cormorants and puffins, watched Indians mending nets, and visited a Coast Guard Loran station.

Lessons organized by the ski committee added to the number of mountaineers on skis. Memorable trips were made to Hurricane Ridge and to Mt. Baker. Many campcrafters enjoyed the good fellowship at events scheduled in town, while only two families were able to go on overnights to Tahoma Creek campground and Irish Cabin. The Juniors' big trip of the year was a nine-day camp at Lake Constance.

A parcel of land slightly over two acres, west of Irish Cabin, was acquired to round out the property. The hut was used during the year by 390 people, and many cabin peaks were climbed. The pin for the first twelve of these summits, with the letters I C and the number 12 on a blue diamond, was reinstated.

The photography group sent out its first traveling slide salon. The fourth season of Audubon Tours featured wildlife in the Arctic, in Venezuela, Florida, Missouri, and the Great Smokies. An increase in the cost of these programs forced a reluctant decision to discontinue them after the current year.

A stage was the major improvement in the Tacoma Clubhouse, and rhododendrons were planted in front of the building. Monthly meetings included programs by the trail trip, photography and ski committee, as well as a talk by Tom Morgan on "Rocks Around Us." Wind, spray and heavy tides lent extra excitement to the Sunday boat trip up the West Passage, stopping at Harper; then around Blake Island and home via the East Passage. At the time of the annual meeting, there were 332 members in the Tacoma Branch.

Everett Branch Report

The year 58-59 was again a busy one for the 122 Everett Mountaineers. Many members and friends attended the Annual Banquet at the Yacht Club. Following dinner a slide lecture on an Alaskan trip was enjoyed.

Hiking events included ski and snowshoe trips to Stevens Pass, Mt. Baker and Tonga Ridge. A family outing at Pilchuck was well attended by snowshoe and sled enthusiasts. Other family outings included a greens walk in December and several beach walks. As the year progressed trail trips were made to Clear Creek, Barclay Lake, Merritt Lake, Meadow Mountain and other scenic spots. Campouts at Salmon La Sac and Mt. Rainier were enjoyed by many.

The climbers were equally busy with climbs of Columbia Peak, Mt. Pugh, Sloan, Del Campo and Kendall. During the summer season climbs included White Horse, St. Helens, Baker, Glacier Peak and Mt. Shuksan. Five climbers made a night climb of Mt. Hood and reported a spectacular sunrise.

The Basic Climbing Course was given for the first time as a Spring quarter evening class at Everett Junior College. It was considered highly successful. Of the 46 who enrolled, 20 completed the course and received certificates issued at Junior College. Ten of those completing the Junior College course (Experience climbs not required) were Mountaineer members at the time, and 8 of these had also completed at least two Experience Climbs, making them eligible to receive the Mountaineer Certificate.

During the year members and their families turned out for the Annual Salmon Bake, the Steak Walk and five potluck dinners.

Among programs highlighting the monthly meetings were films "Wilderness Alps of Stehekin" and "Glacier Peak Holiday". There were also interesting slide shows by various members of activities during the year.

NANCY BICKFORD
Secretary

AUDITOR'S REPORT

December 8, 1959

THE MOUNTAINEERS
Seattle, Washington

I have examined the Statement of Financial Condition of The Mountaineers as of August 31, 1959 and the related Statement of Income and Expenses for the twelve months then ended. My examination of the recorded transactions included such test checking and verification as I deemed necessary. The reported receipts were properly accounted for, the disbursements properly supported and the cash and bonds were in existence as reported.

The accompanying financial statements based on the recorded transactions present fairly the financial condition of the Mountaineers at August 31, 1959 and the results of the club's operations for the year then ended on a basis, consistent with that of the preceding year.

LOUIS BAROH
Certified Public Accountant

THE MOUNTAINEERS
STATEMENT OF FINANCIAL CONDITION
August 31, 1959

	ASSETS	LIABILITIES
General Fund		
Cash	$19,274.97	
Accounts receivable	396.95	
Advances to Mountaineering Book Fund	1,416.28	
Property and equipment - schedule	31,350.96	
Prepaid expenses	1,867.12	
Deposit for appeal	800.00	
Taxes payable		$ 203.54
Dues and initiation fees allocated to branches		533.33
Due other funds		9,019.20
Principal of fund		45,350.21
	$55,106.28	$55,160.28
Permanent Building and Improvement Fund		
Cash	$ 9,714.37	
Tacoma branch construction loan	3,600.00	
Due from General Fund	1,100.20	
Principal of fund		$14,414.57
	$14,414.57	$14,414.57
Mountaineering Book Fund		
Cash	$ 4,277.28	
Due to and from General Fund	7,919.00	$ 1,416.28
Pledges receivable	335.00	
Note payable		4,000.00
Pledges subscribed		8,262.00
Principal of fund (deficit)		(1,147.00)
	$12,531.28	$12,531.28
Permanent Fund		
Cash	$ 2,010.00	
U. S. Government bonds - at cost	3,000.00	
Due to General Fund		$ 10.00
Principal of fund		5,000.00
	$ 5,010.00	$ 5,010.00
Seymour Fund		
Cash	$ 313.11	
Due from General Fund	10.00	
U. S. Government bonds - at cost	1,000.00	
Principal of fund		$ 1,323.11
	$ 1,323.11	$ 1,323.11

THE MOUNTAINEERS

STATEMENT OF INCOME AND EXPENSES
For the twelve months ended August 31, 1959

INCOME

Dues and initiation fees:		
Seattle	$18,550.00	
Tacoma	1,697.00	
Everett	577.00	$20,824.00
Less allocations:		
Tacoma	$ 494.00	
Everett	159.00	
Bulletin subscriptions	7,658.50	
Permanent Building and Improvement Fund	4,047.00	12,358.50
NET DUES AND FEES		$ 8,465.50
Sales of publications	$ 7,674.00	
Less cost of publications	8,742.35	(1,068.35)
Committee operations:		
Lodge committees - schedule	$ 482.60	
Other committees - schedule	1,454.05	1,936.65
Other income		2,565.49
TOTAL INCOME		$11,899.29

EXPENSES

Salaries	$ 3,650.00	
Rent	1,450.00	
Education	979.03	
Dues and subscriptions	477.50	
Telephone	327.17	
Clubroom expense	244.29	
Office supplies and expense	130.06	
Stationery and postage	1,020.21	
Bank charges	39.76	
Bookkeeping	815.00	
Payroll taxes	375.85	
Depreciation - other than lodges	412.20	
Insurance - other than lodges	739.30	
Miscellaneous	36.60	
Personal property taxes	7.37	
TOTAL EXPENSES		10,704.34
EXCESS OF INCOME OVER EXPENSES		$ 1,194.95

THE MOUNTAINEERS

SCHEDULE OF PROPERTY AND EQUIPMENT
August 31, 1959

	Recorded Value	Accumulated Depreciation	Net
Snoqualmie Lodge	$13,388.48	$ 8,203.80	$ 5,184.68
Mt. Baker Cabin	12,768.36	627.83	12,140.53
Stevens Ski Hut	9,389.01	4,107.93	5,281.08
Meany Ski Hut	7,923.79	6,030.10	1,893.69
Rhododendron Preserve	4,040.88	3,435.62	605.26
Library	3,052.26	1,902.21	1,150.05
Clubroom furniture and fixtures	2,880.98	1,682.87	1,198.11
General equipment	2,234.71	1,187.37	1,047.34
Photographic equipment	1,442.37	1,127.97	314.40
Land:			
Snoqualmie	1,100.00		1,100.00
Rhododendron Preserve	757.50		757.50
Linda Coleman Memorial	678.32		678.32
	$59,656.66	$28,305.70	$31,350.96

THE MOUNTAINEERS
LODGE COMMITTEE OPERATIONS

For the twelve months ended August 31, 1959

INCOME

	TOTAL	Meany Ski Hut	Mt. Baker Cabin	Rhododendron Preserve	Snoqualmie Lodge	Stevens Ski Hut
Meals Served	$11,756.54	$3,374.65	$3,892.05	$ 502.96	$1,942.15	$2,044.73
Use of Hut or Lodge	3,229.75	935.65	1,694.75	278.60	194.50	126.25
Use of Ski Tow	4,167.28	959.78	-0-	-0-	3,207.50	-0-
Miscellaneous	153.90	45.00	6.40	-0-	102.50	-0-
	$19,307.47	$5,315.08	$5,593.20	$ 781.56	$5,446.65	$2,170.98

EXPENSES

Food and Service	$ 9,241.82	$2,516.34	$3,005.02	$ 599.84	$1,777.70	$1,342.92
Building Expense	2,391.00	438.66	763.02	126.93	882.47	179.92
Tow Expense	1,138.44	548.95	-0-	-0-	589.49	-0-
Rent	397.24	46.24	316.00	-0-	-0-	35.00
Committee Expense	1,259.67	13.60	40.15	126.81	1,054.11	25.00
Refunds	106.75	50.25	56.50	-0-	-0-	-0-
Insurance	949.22	181.80	213.10	59.61	234.91	259.80
Property Taxes	488.67	-0-	-0-	155.77	186.69	146.21
Depreciation	2,820.70	800.00	548.45	67.25	800.00	605.00
Miscellaneous	31.36	-0-	-0-	31.36	-0-	-0-
	$18,824.87	$4,595.84	$4,942.24	$1,167.57	$5,525.37	$2,593.85
NET INCOME (LOSS)	$ 482.60	$ 719.24	$ 650.96	$ (386.01)	$ (78.72)	$(422.87)

THE MOUNTAINEERS
OTHER COMMITTEE OPERATIONS

For the twelve months ended August 31, 1959

INCOME

	TOTAL	Annual Banquet	Camp-Crafter	Climbers	Dance	Dinner	Players	Special Events	Summer Outings	Trail Trip	View-Finders
Receipts	$ 3,911.83	$696.00	-0-	-0-	$1,503.90	-0-	$1,711.93	-0-	-0-	-0-	-0-
Registration Fees	5,986.31	-0-	-0-	$854.66	-0-	$37.30	-0-	$180.90	$4,810.95	-0-	$102.50
Trail and Other Fees	241.01	-0-	$70.00	92.86	-0-	-0-	-0-	-0-	-0-	$78.15	-0-
	$10,139.15	$696.00	$70.00	$947.52	$1,503.90	$37.30	$1,711.93	$180.90	$4,810.95	$78.15	$102.50

EXPENSES

Food and Service	$ 2,273.71	$652.80	-0-	-0-	$ 172.21	-0-	-0-	-0-	$1,448.70	-0-	-0-
Program Expense	961.36	-0-	-0-	-0-	747.80	-0-	$ 129.27	$ 84.29	-0-	-0-	-0-
Climbing Ropes	432.97	-0-	-0-	$432.97	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Stationery and Postage	244.56	-0-	-0-	160.65	1.00	-0-	82.91	-0-	-0-	-0-	-0-
Rent	600.60	-0-	-0-	-0-	405.00	-0-	195.60	-0-	-0-	-0-	-0-
Taxes	93.00	-0-	-0-	-0-	82.95	-0-	-0-	10.05	-0-	-0-	-0-
Committee Expense	25.30	-0-	-0-	-0-	-0-	-0-	-0-	-0-	25.30	-0-	-0-
Costumes and Properties	145.94	-0-	-0-	-0-	-0-	-0-	145.94	-0-	-0-	-0-	-0-
Directors' Fees and Expense	358.20	-0-	-0-	-0-	-0-	-0-	358.20	-0-	-0-	-0-	-0-
Transportation	2,783.59	-0-	-0-	-0-	-0-	-0-	-0-	-0-	2,783.59	-0-	-0-
Insurance	15.54	-0-	-0-	-0-	-0-	-0-	-0-	-0-	15.54		
Miscellaneous	750.33	21.00	-0-	166.69	-0-	-0-	-0-	-0-	562.64	-0-	-0-
	$ 8,685.10	$673.80	$ -0-	$760.31	$1,408.96	$ -0-	$ 911.92	$ 94.34	$4,835.77	$ -0-	$ -0-
NET INCOME (LOSS)	$1,454.05	$ 22.20	$70.00	$187.21	$ 94.94	$37.30	$ 800.01	$ 86.56	$ (24.82)	$78.15	$102.50

THE MOUNTAINEERS—Tacoma Branch

STATEMENT OF FINANCIAL CONDITION

As of August 31, 1959

ASSETS

Current Assets:		
Cash in Regular Bank Account		$ 1,110.34
Investment in U. S. Gov't Bonds, Series G		600.00
Fixed Assets:		
Irish Cabin Property (estimated values)		
Land	$ 200.00	
Cabin	1,900.00	
Furniture and Equipment	400.00	
Tacoma Club House		
Land	800.00	
*Building (cost to date)	13,575.33	
Furniture (estimated)	1,000.00	15,375.33
TOTAL ASSETS		19,585.67

LIABILITIES

The Mountaineers—Loan	3,600.00
**Net Worth	15,985.67
TOTAL LIABILITIES AND NET WORTH	19,585.67

*As increased by new construction this fiscal period in the amount of $1,500.71.
**Increase in Net Worth over last year—$1,102.44

STATEMENT OF INCOME AND EXPENSE

For the Year Ended August 31, 1959

INCOME

Audubon Screen Tours	$ 22.88
Climbing Committee	193.14
Club House Rental	400.00
Donations	43.35
Irish Cabin Committee	167.41
Membership Refund	483.83
Miscellaneous	13.65
Music Committee	3.75
Photographic Committee	116.30
Pop Sales	14.44
Social Committee	240.71
Trail Trips	92.98
U. S. Gov't Bond Income	15.00
Ways and Means Committee	111.30
TOTAL INCOME	1,918.74

EXPENSES

Club House Caretaker	$ 40.00	
Club House Construction	1,500.71	
Club House Loan—repayment on	200.00	
Club House Maintenance	44.13	
Club House Utilities	247.17	
Insurance	161.51	
Membership Committee	16.91	
Miscellaneous Expense	9.05	
Secretary's Expense	10.00	
Taxes	78.28	
Treasurer's Expense	9.25	
TOTAL EXPENSES	2,317.01	
EXCESS OF EXPENSES OVER INCOME		398.27
Bank Balance August 31, 1958		$1,508.61
Less Excess of Expense Over Income		398.27
Bank Balance August 31, 1959		1,110.34
	$55,106.28	$55,106.28

THE MOUNTAINEERS—EVERETT BRANCH

Statement of Financial Position
August 31, 1959

ASSETS

Cash	$145.25
Dues and initiation fees receivable from Mountaineers	$169.00
On Loan to Mountaineer Book Committee	$200.00
Investment in U. S. Government Bonds (at cost)	$879.00
SURPLUS	$1,394.25

Statement of Operations
For Fiscal Year Ended August 31,1959

INCOME

Dues and initiation fees	$169.00
Miscellaneous	20.45
Committee Operations	119.67
TOTAL INCOME	$309.12

EXPENSES

Rentals	$ 27.00
Snohomish County Library towards purchase of movie, "Wilderness Alps of the Stehekin"	100.00
Administration and Miscellaneous	101.21
Loan to Mountaineer Book Committee	200.00
TOTAL EXPENSES	$428.21
Excess of Expenses Over Income	$119.09

Tacoma Chairmen

Audubon.....Stella Kellogg

Campcrafters.....Dick and Vera Wiseman

Climbing.....Harry Connor

Clubhouse.....Nels Bjarke

Conservation.....James Holt

Irish Cabin.....Richard Vradenburgh

Junior Representative.....Roger Oborn

Junior Sponsors.....Gerald and Kathryn Hoyer

Membership.....Marian Trapp

Music.....Inez Kilmer

Photography.....Edward Freeman

Publicity.....Wilma Shannon

Refreshments.....Mary St. John

Rentals.....Floyd Raver

Ski.....Joseph Cockrell, Sr.

Trail Trip.....Val Renando

Committee Chairmen

Achievement Records	Frank Perry
Annual Banquet	Mary Jane Ferguson
Annual	Nancy Bickford
Auditing	Julius Schmidt
Book Promotion	Warren Wilson
Bridge Group	Mrs. Adolph J. Eberharter
Building Policy	Roy Wessel
Bulletin	Evelyn MacDonald
Campcrafters	Howard C. McNeely
Climbing	Robert Latz
Clubroom Custodian	Mrs. Irving Gavett
Conservation	William Halliday
Dance	Pete Steele
Dinner Meetings	Helen Froberg
Expedition	Richard McGowan
F. W. O. C. Representative	William Halliday
Finance	Jessie Epstein
Future Clubroom	Bob Milnor
Insurance	Hubert West
Irish Cabin	Earl Gjuka
Library	Olga Shklanka
Meany Ski Hut	Harvey Mahalko
Membership	Varnel Denham
Monthly Meeting	Grace Kent
M. R. C. Representative	Lincoln Hales
Mt. Baker Lodge	Norman E. Anderson
Operations Manual	George McDowell
Players	Richard Kahler
Photographic	Elmer Hike
Recording Secretary	Elsie Wagner
Rhododendron Preserve	Robert Landon
Safety	Everett Lasher
Seattle Trail Trips	Minnie May Conklin
Ski Recreation	Stella Degenhardt
Snoqualmie Lodge	W. Cross, G. Cook
Special Outings	Loretta Slater
Stevens Hut	Albert Alleman
Summer Outing	Sheldon Brooks
Typing and Duplicating	Doreen Lidgate
Viewfinders	Val Comstock