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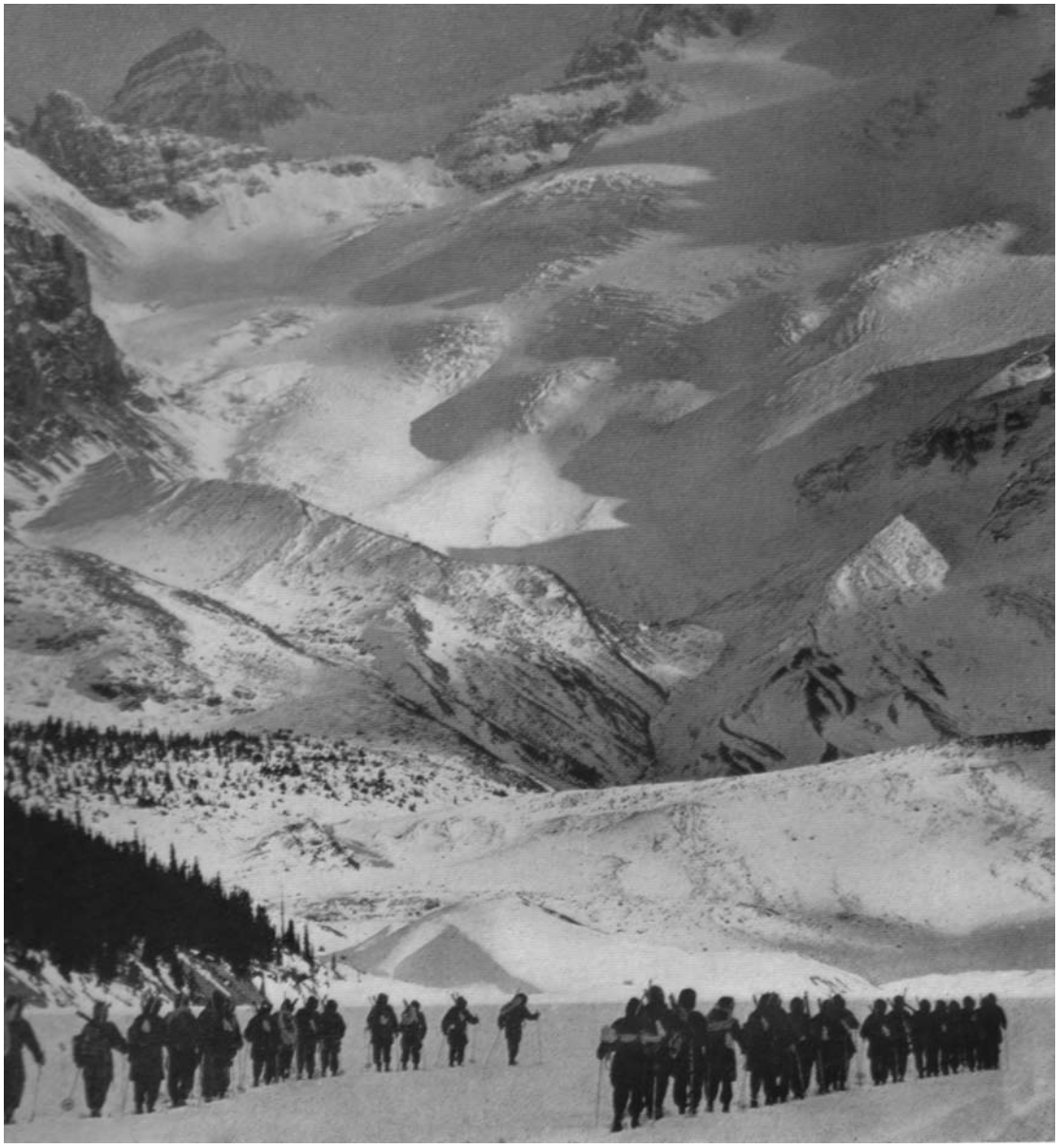

**Lovat Scouts Skiing Up The Sunwapta River Flats With Mount Athabasca In The Background.** *National Film Board*

CANADIAN ALPINE JOURNAL

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# TROOP TRAINING IN THE ROCKIES

BY MAJOR REX GIBSON, R.C.A.

The Second World War, just as its predecessor, had many interesting stories which for reasons of security had, perforce, to be kept under a veil of secrecy. One of these stories has at length passed into the "now it can be told" class, and the purpose of this article is to write the mountaineering story of the training of the Lovat Scouts in high mountain warfare during the winter of 1943-44. The official report on these operations, which I compiled in June, 1944, reposes in the dusty archives at Ottawa, but this article will serve to put the mountaineering achievements on record for those who love the High Hills.

It seems strange that with so large a part of the earth's surface composed of mountain barriers, neither the British, Canadian nor U.S. military authorities had given a second thought to the training of Mountain Troops, nor to the possibility of having to fight campaigns in high and rugged country. This is all the more strange, when it is considered that the best French, German, Austrian and Italian troops were their mountain-trained divisions. In fact when war broke out the Germans had fourteen highly trained mountain divisions, and the British and U.S. Armies had no troops specially trained as skiers and climbers, with the possible exception of a few British artillery units equipped with the 3.7" howitzer, which were used on the northwest frontier of India. The whole attitude of official indifference and lack of interest was well summed up by a remark made early in the war to Squadron-Leader Smythe. Smythe had been urging the need for mountain troops, and the reply was, "But, my dear fellow, who wants to fight in mountains anyway!" Alas, when the enemy has the initiative, the other side has no choice of terrain and the disastrous campaign in Norway clearly demonstrated how great an advantage accrues to the side whose men know how to fight in mountainous country as well as on the plains. Since that debacle we have been forced to fight in mountains in almost every campaign — Abyssinia, Tunisia, Sicily and Italy being notable examples. It has been found necessary to employ hasty improvisations, such as the organization of a Mountain Warfare School somewhere in the Apennines in Italy. This was described in a despatch by C. L. Sulzberger to the New York Times on February 29, 1944, in which he wrote that Colonel Cochran, the Officer Commanding, was "charged with telling the city boys in a few days how to climb on skis, handle themselves in the mountains, care for their feet, help the wounded down the crags and use special snow equipment." The italics are mine! I do not wish to convey the impression that the U.S. Military Authorities had not previously done anything about training mountain troops, for, as is well known to most of my readers, thanks to the initiative of the American Alpine Club and the kindly interest of Mr. Henry L. Stimson, at least one whole division of Mountain Troops had been in training at Camp Hale, Colorado, and some of these troops had seen service in the Aleutians.

Except for Major General G. R. Pearkes, V.C., G.O.C. in C. Pacific Command, at whose instance the Club conducted the Little Yoho military training camps in July and August, 1943 (vide

H. J. Graves' excellent article in *C.A.J.*, 1942-43) little interest was displayed in the problems of mountain warfare in Canadian Army circles.

In August, '43, however, the War Office decided to give high mountain training to the Lovat Scouts, who were attached for reconnaissance duties to a division which had been specially earmarked for use in mountain country. The Lovat Scouts were a happy choice, as most of the men came from the north of Scotland, many were highland ghillies and all were good marksmen. They had had previous commando and rock climbing training in North Wales and elsewhere. They had, however, everything to learn about snow

and ice technique, and as the training had to be carried out in mid-winter they had, perforce, to be taught to manoeuvre on ski. It was indeed a formidable task.

After a week of preliminary conferences in Ottawa, at which Brigadier Barclay from the United Kingdom and Squadron-Leader Frank Smythe were present, it was decided to carry out a preliminary recce (Army abbreviation for reconnaissance) and Squadron Leader Smythe and I flew by T.C.A. from Ottawa to Calgary on the night of September 19, 1943.

**Preliminary Reconnaissance, September, 1943**

This recce was of the nature of a rush trip and was designed to give Squadron Leader Smythe an idea of the type of mountain country we had to offer. We motored from Calgary to Banff on the afternoon of September 20 and I took Smythe to see A. 0. Wheeler, our "G.O.M." of the mountains. The next day with our party augmented by Jim Brewster and Lou Crosby we drove up the Lake Louise-Jasper Highway and spent some time at the Icefields Chalet, eventually reaching Jasper at 9.00 p.m. In the party, beside those already mentioned, were Lt.-Col. "Bunny," Head of the British Military Mission in Washington, D.C., and Lt.-Col. P. V. Harcourt, the D. E. 0. from M. D. 13, Calgary. Smythe's trained eye quickly saw the potentialities of the Columbia Icefields as a training ground and he was immensely taken with this his first view of the Canadian Rockies.

As, however, both Vernon and Terrace, B.C., where well established camps were available, had been mentioned as possible sites Smythe and I went on to Vernon from Jasper via Kamloops and spent the day of September 23 there. One glance at the countryside, beautiful as it was, showed us that it was not what we were looking for. As Smythe remarked, "We could do just as well on the South Downs in England !"

We flew back to Ottawa from Calgary on the night of September 24-25 and had another week of conferences and meetings. Our plans now began to take shape and it was necessary to do some more work on the ground chosen for the scheme.

**Detailed Reconnaissance, October, 1943**

Flying T.C.A. once more, Smythe and I reached Calgary on October 7 and left the next day with a station wagon and three weeks' supplies. The party now consisted of Smythe and myself, also Corporal Black of the Brockville Rifles, who was one of our instructors in the Yoho. As we intended to do some serious climbing it was essential to have a third climber along. We made our headquarters in the garage building at the Icefields, as the main chalet was of course unheated. During the course of our recce work we climbed the following peaks: October 10, Mt. Athabaska (11,452 feet); October 13, Wilcox Peak (9,463 feet); October 14, Sunwapta Peak (10,875 feet). This last was a day to be remembered, as the five major planets were seen in the morning sky before dawn, and later from the summit of Sunwapta the six highest peaks in the Rockies were visible. The summit, graced by the most enormous survey cairn, was an exceptionally fine viewpoint due to its height and isolation.

A trip to Nigel Pass kept us occupied on October 16. We also had visits from Brigadier Hervey and Major General Pearkes. On October 21 we made a climb up the Athabaska Glacier to the 10,000-foot level when a mishap on the descent illustrated vividly the dangers of mountaineering out of season. While descending in our uphill tracks I broke through a snow bridge into a deep straight-walled crevasse and dangled for fifteen minutes on the rope before Smythe and Black succeeded in extricating me. Two cracked ribs were the sum total of the damage. The surface snow showed no indication of the crevasse's presence, and our uphill track had crossed it safely. It must however be remembered that these snow bridges are newly formed by the first fall snows and have not had time either to consolidate or to sag. Moral: Do not go climbing for fun in October and November.

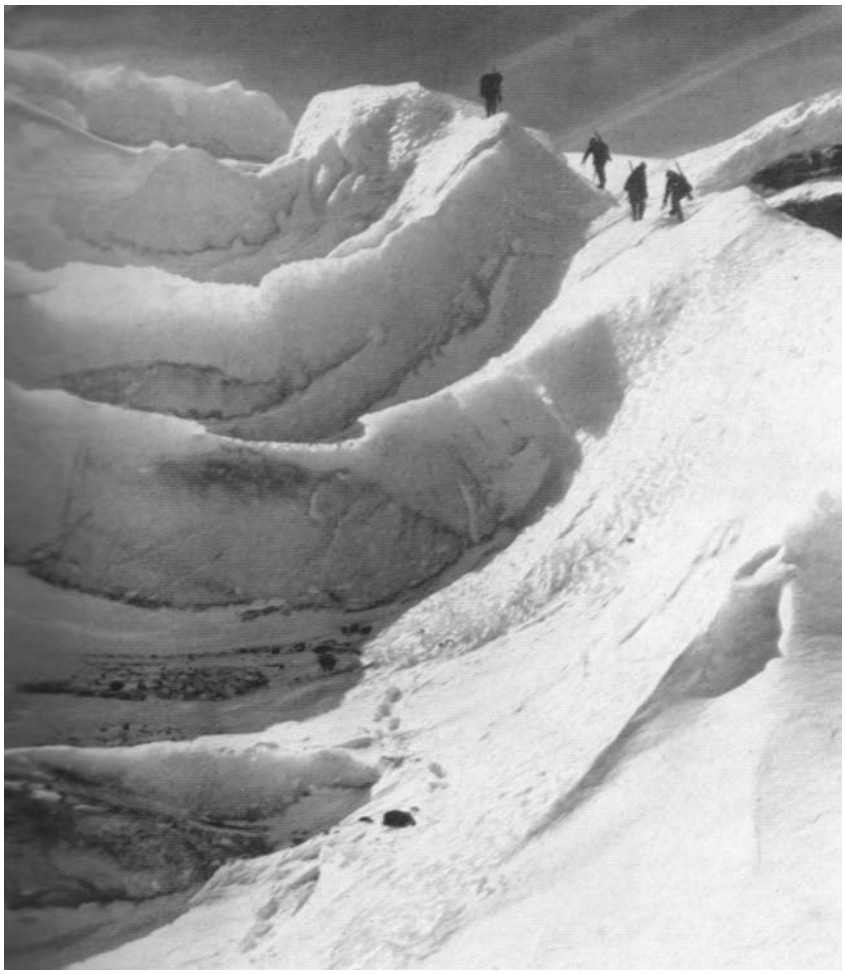
The second part of the recce was carried out in the Medicine Lake and Maligne Lake country, and on this leg of the trip we were accompanied by my old friend Joe Weiss. We made a side trip to the Watchtower and Snowbowl valleys, both of which are good ski grounds, and spent the night of October 23 at Snowbowl cabin. There was about five inches of snow in the high country and we could have made better time on ski. On October 25, Smythe returned to Ottawa via Edmonton and I went west on the Prince Rupert line to Terrace to look over the terrain there. As the village and camp there in the Skeena valley were only 400 feet above sea level, this terrain was definitely unsuitable for the type of training which we had in mind. November 6 saw me back in Ottawa, by train this time, and the next job was to select our team of Canadian instructors.

**Pilot Course for Canadian Instructors, November, 1943**

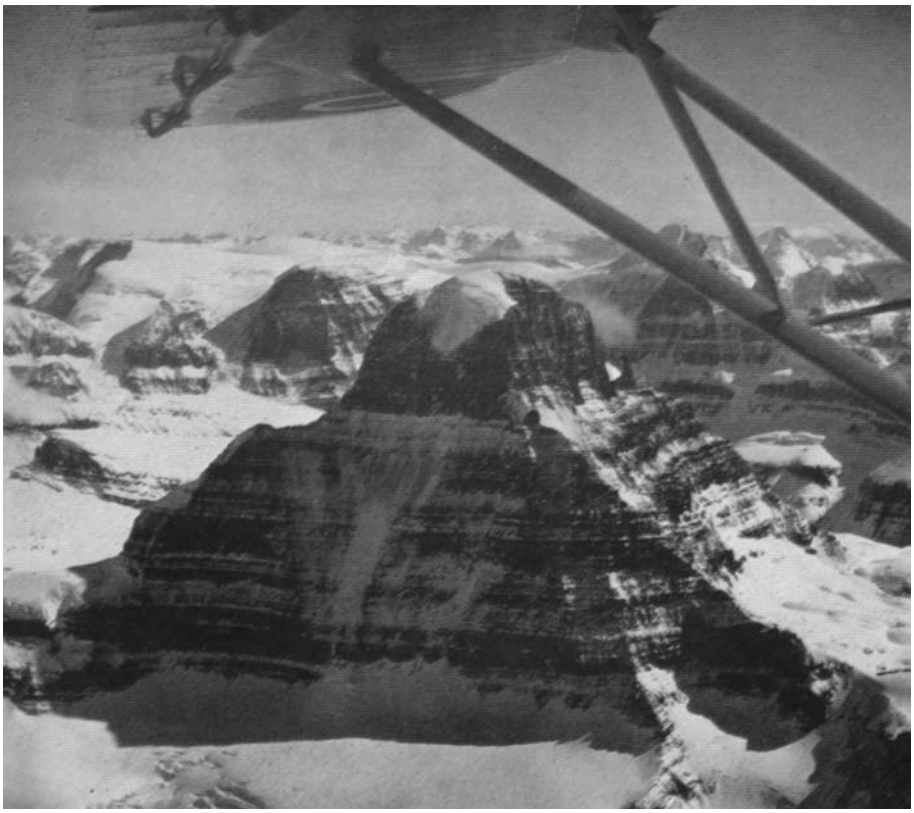
While we knew that there existed in Canada a large number of competent skiers who could be used as ski instructors, it was also realized that the number of trained mountaineers was exceedingly small. Fortunately we had available a backlog of N. C. O's who had been at the Yoho Camps in July and August, 1943. The problem really resolved itself into one of "teaching mountaineers to ski and skiers to climb mountains."

It was decided therefore to hold a pilot course of three weeks' duration, commencing on November 17. The venue chosen was the Columbia Icefields Chalet and we were favored by a period of fine weather with not unduly low temperatures. By substituting army double-decker beds for the existing furnishings it was found possible to accommodate 80 officers and men in the Chalet and the big dining-hall served not only as a mess hall but as a lecture room.

Rapid progress was made with the training and we were able to eliminate about twenty unsuitables by the end of the three-week period. Squadron Leader Smythe led a climb of Snow Dome in bad weather; this resulted in a bad case of frostbitten feet for Sergeant Burns, who was only wearing ordinary army marching boots at the time. At the conclusion of this course eight days' leave was granted to those who wished it and the remainder were kept busy in preparatory work prior to the arrival of the main body of the Lovat Scouts. One of the jobs was to open up the trail to Maligne Lake using the ubiquitous jeep. Trucks could go no further than the north end of Medicine Lake, and I well remember the first trip we made along the bottom of the lake where the temperature was 11° below zero that December morning. To those who are familiar with Medicine Lake in the summer, its winter appearance would come as a surprise, for the lake is completely empty and the reduced flow of the Maligne River which enters at the south end is carried away by underground channels which only rejoin the regular river bed some distance below Maligne Canyon. The location of some of these underground outlets was indicated by bare patches of rock on the sides of the lake bed, where warm air from the rock tunnels had melted surface snow. Jeeps have made a name for themselves by their ability to go anywhere, but summer tourists will think



**Using Crampons And A "Casualty Rescue."** *National Film Board*



**Mt. Alberta.** *National Film Board*

**Lovat Scouts In Ice Cave.** *National Film Board*

we are pulling their legs when we boast of driving a jeep along the bottom of this lake, which they can see is some 40 to 50 feet deep and more than 5 miles long! It is interesting to note than only twice in the last ten years has the lake filled up completely and commenced to drain down the bed of the Maligne River, which empties through the canyon. Normally the only water flowing through Maligne Canyon is that supplied by tributary streams such as Watchtower, Excelsior and Two Valley Creeks.

We also opened up the trail to Watchtower Valley, which involved building a substantial bridge over the dry bed of the Maligne River. Recce trips were made to Snow-bowl and up Maligne Lake to the narrows, where a tented camp was put in. Another recce was made up Sandpiper Creek to scout out the approaches to Maligne Mountain (10,475 feet) from the west, but it was not a suitable line as the easiest ice tongue presented a 1,000-foot wall of sheer green ice holding no snow at all. In the meantime the advance party of the Lovats had arrived on December 15 and started to conduct a leaders' course at the Columbia Icefields Chalet.

**Winter Training School**

By the time the main body of the Lovats arrived on January 9, 1944, we were ready and had our main and outlying camps planned and in some cases completely set up. The Army took over the staff quarters of Jasper Park Lodge as a main camp and these buildings were winterized by the addition of extra radiators. The Golf Club house was used as the Officers' Mess and filled the bill most admirably. The Laundry was used as the ski shop and it was no small undertaking fitting harness to innumerable pairs of skis, to say nothing of applying base wax with blow torches. A fifty-bed hospital was set up in one of the newer buildings and the Convention Hall was used as a dry canteen, for movie shows and for entertainments given by the local concert party. It was not found necessary to use the main Lodge, nor the private guest cabins, and except for the lack of snow in Jasper itself the whole layout was ideal.

Teaching so many men to ski was no small task, but it was accomplished by adhering rigidly to a carefully worked out Syllabus of Training.

The lack of snow in Jasper forced us to establish outlying camps and these were set up and maintained for some weeks at the following places: Mount Edith Cavell Chalet, Chrome Lake (Tonquin Valley), Maligne Lake Chalet, Watchtower Valley, Snowbowl Valley. Each had facilities for the training of a company or squadron of men.

We occupied the Icefields Chalet throughout the entire winter and by setting up some winterized marquees accommodation was provided for a group of men at this point.

In all of this work we received much helpful assistance and advice from the Superintendent of Jasper Park, Major Jimmy Wood, and from the park wardens, in particular from Ed. Macdonald and Frank Wells.

It is not feasible in an article of this nature to mention all the comings and goings of the different squadrons, but it may be of interest to mountaineers to have recorded the main winter mountaineering activities carried on by the troops and their instructors in the different areas.

**Jasper Area**

Preliminary ski instruction was given on the golf links, while the snow lasted and troops were taken skiing on Signal Mountain, The Whistlers, and up the new trail to the fire lookout on top of the Palisades. Major Sandy Wedderburn made an ascent of Pyramid Mountain (9,076 feet) and rated it tops as a view point. Recollecting that the bed of Maligne Canyon makes an interesting ice climb, I led a recce party through there in February. We had to install a fixed rope to negotiate

the 120-foot waterfall, as the upper part of the shell of ice was too fragile to permit cutting steps. This made a most interesting trip, and involved climbing over two log jams as well as several smaller frozen waterfalls. Crampons are a necessity. A whole squadron of the Lovats were taken through there a few days after our recce. The canyon seen from below is most spectacular, and this expedition furnishes the best winter ice climb adjacent to Jasper.

A special recce trip was carried out with Joe Weiss as guide, for some of the British officers. Major Wigram, who had been on an Everest expedition, Captains Tom Peacock, and Tim Paynter and Lieutenant Howe made up the party. Leaving Jasper by "weasel" on January 12, we spent the first night in Watchtower cabin. Skiing thence over "Mc-Queen" and Shovel Passes, we passed a second night at Snowbowl cabin and on January 14 the party skied over Little Shovel Pass to Maligne Lake. Next day a weasel took us up to the south end of Maligne Lake and a tented camp was established at Coronet Creek. During the ensuing few days the valleys of Warren, Coronet and Mary Vaux Creeks were explored on ski. It had been hoped to climb Mount Brazeau on ski, but bad weather, low cloud ceilings and warm temperatures prevented this. On January 19 we left camp at 9.30 a.m. on the trip out via North Coronet Pass and Maligne Pass. This proved to be a tougher trip than we had anticipated and we did not begin the descent on the south side of Maligne Pass till 6.00 p.m. We were fated not to reach Poboktan Creek that day and about 9.00 p.m. we resigned ourselves to a night in the open with neither sleeping bags nor tents and on short rations. The temperature at 8.00 a.m. next morning was only 12° above, and we made the trip down to the Poboktan Valley by 12.45, reaching the highway at Mile 45 at 3.45 p.m.

**Mount Edith Cavell Area**

While no winter ascent was made of the mountain itself, its environs lent themselves to two- and three-day schemes. Trips were made around the Cavell massif via Verdant Pass, via Campus Pass and the Whirlpool River. The officers in charge soon found out that bushwhacking, deadfall and other obstacles that maps do not reveal present a serious impediment to the passage of heavily laden troops. In consequence several of their more ambitious programs had to be severely curtailed.

The ski grounds above timberline to the northeast of Cavell were the scene of the ski meet which was conducted on March 4 and 5 for teams representing all the squadrons. A fine slalom course with a 900-foot difference in elevation was laid out, and in addition a four-mile cross-country race and a military patrol race were held. Competition was keen in all events, "D" Squadron winning by a narrow margin.

**Chrome Lake Area (Tonquin Valley)**

As this is one of the outstanding skiing and climbing areas in the Northern Rockies, a camp was established there for some weeks, and a great deal of climbing was done. Ascents were made of the following peaks: McDonell (10,700 feet), Outpost (9,200 feet), Anchorite (9,500 feet), Alcove (9,300 feet), Thunderbolt (8,745 feet). Captain Peacock had three unsuccessful tries at Bennington (10,726 feet) and Paragon was also attempted.

The supply of this camp was carried out at first by backpacking and by man haulage of sleds of the Nansen-type. Later we used the Army packtrain from a camp at Viewpoint on the Cavell road. After five days hard work "Weiss' Weasel Way" was established up the Astoria and it was finally possible to do the trip in from Viewpoint in real comfort in less than two hours. The "weasel" or M29 is a fully tracked snowmobile and it proved most useful at all outlying camps. It is also amphibious, and we proved its floatability by dropping one through a thin place in the ice at the Maligne Lake narrows. It eventually floated there for four days before we finally got it back to terra firma.

Several long patrol trips were made from Chrome Lake, notably one of three days over Tonquin Pass down Tonquin Creek to the Fraser Valley and returning to Jasper via the Yellowhead Pass to Geikie, where trucks met the troops.

**Maligne Lake Area**

Skiing instruction was carried out mostly on the Bald Hills and one or two patrols visited Trapper's Valley where grand skiing slopes run for miles above timberline to the southeast. The 8,000-foot un-named peak to the north of Mount Leah was ascended.

First Winter Ascent of Mount Charlton (10,554 feet)

On February 23 I led a ski ascent of this fine peak and skis were taken to about 10,000 feet. The party consisted of Lieut. Nigel Walker, Lovats; Lieuts. Bob Freeze and Arnold Walker, Canadian Army, and John Brett of Montréal, who spent the winter with us as a civilian instructor. Thanks to using a weasel up the first ten miles of the lake we were able to start from the comfort of Maligne Lake Chalet. We left the lake shore at 9.40 a.m. and after stopping for lunch at 9,500 feet (12.45-1.15 p.m.) the summit was reached at 3.55. Temperature on the peak was only 5° above. We were back at the lake at 7.00 p.m. and were met by the faithful weasel. Every commercial ski camp in the mountains should certainly operate one of these most efficient vehicles.

Maligne Lake was also the starting point for two long patrol trips, one of which proceeded over Coronet Glacier, and came down to the highway via Poboktan Creek; the other was an especially ambitious scheme calling for supply from the air to the troops and which took them over the Brazeau Icefield, down to Brazeau Lake, thence up the Brazeau River to Nigel Pass and out via the highway to the Icefields Chalet. This particular trip took five days and was one of the most arduous undertaken during the whole period of training.

**Watchtower and Snowbowl Areas**

While these are good skiing grounds, they are not of particular interest to climbers. It should be mentioned, however, that the Watchtower (9,157 feet) is as yet un-climbed. Some of the troops under Capt. Nicholson, O.C. of "A" Squadron, climbed a lower summit of Watchtower. In the Snowbowl the following ascents were made: Curator Mountain (8,604 feet), Antler Mountain (8,400 feet).

The troops training in the Snowbowl country were kept supplied by packhorses operating from a camp established on the Maligne Lake trail about six miles from the south end of Medicine Lake. We kept weasels operating throughout the winter over the Maligne Lake trail and up to Watchtower camp.

**Columbia Icefields Area**

As this was the area used for the Canadian instructors' pilot course, and also for the first and second leaders' courses, which were conducted by the Lovat Scouts, a great deal of climbing was done in and around this region.

Winter ascents were accomplished of: Nigel (10,535 feet), first winter ascent; Athabaska (11,452 feet), by two routes; "Andromeda" (11,200 feet), first winter ascent; Snowdome (11,340 feet); Kitchener (11,500 feet), first winter ascent; "K3" (9,100 feet), first winter ascent; Nigel 2 (9,600 feet), first winter ascent; Wilcox Peak (9,463 feet), first winter ascent; Columbia (12,294 feet), first winter ascent. The first complete winter ascent of Columbia took place on March 14, 1944, during a three-day patrol on the Icefields, when the troops slept in snow holes dug down into the surface of the névé; Major D. Groff of Winnipeg was the leader, and about thirty men made the climb. On the same day I accompanied a troop of men from another snow-hole camp at 10,500 feet

elevation with North Twin as our objective, but owing to a late start we did not get beyond the col between North Twin and Stutfield.

Considerable use was made of the rebuilt cabin one mile below the tongue of the Saskatchewan Glacier, site of the U.S. Army camp in 1942. This camp had been used for the field testing of all types of snowmobiles and other vehicles, and rumor has it that there is at least one jeep at the bottom of a crevasse there. During the winter we took weasels a long way up the Saskatchewan Glacier, and an extended patrol was carried out by skiers across the Saskatchewan Glacier, and Castleguard meadows, thence down the Alexandra River and back to the highway.

Towards the end of March weasels were taken across Bow Pass to Lake Louise and Banff, and on April 7 a ski party crossed the Waputik mountains from north to south via Peyto Lake, Peyto Glacier, the Wapta Icefield and the Yoho Glacier. Some of this group met our 1944 ski camp party at the warden's cabin at Takakkaw, somewhat to the mutual surprise of all concerned.

**Aeroplane Co-operation**

Two Norseman planes were placed at the disposal of the Winter Training School during March and April, 1944, when 85 sorties were flown and 13,000 pounds of freight carried. Planes were used for photography, recce work, and parachuting supplies to troops out on distant patrols. Early in March the planes were flown on skis, using Pyramid Lake as a base, and ski landings were made on Maligne, Amethyst and Brazeau Lakes. Later it was found necessary to operate the planes on wheels; Henry House, a natural airport six miles north of Jasper, was used. Being on wheels precluded any chance of making an emergency landing, as of course all the high country was still deep under snow.

On April 1, I was fortunate in being able to accompany the National Film Board camera men on an extended flight over the Columbia Icefields in perfect weather, and we got marvellous movies and kodachromes of all the big peaks. We circled right around Mt. Alberta (11,874 feet) and I was able to form a good idea as to the only feasible route on this grim looking peak.

We were fortunate in having the services of three expert bush pilots who enjoyed the mountain flying as a pleasant change from the monotony of the run from Edmonton to Alaska on the Northwest Staging Route.

The National Film Board sent up a number of photographers, among them our old friend Harry Rowed, an enthusiastic ski-mountaineer. They took about 6,000 feet of 35mm. film, and when this is released it should be well worth seeing as they covered all phases of our mountain training.

We did our best one day to shoot down an ice avalanche off Snowdome for them to film, but in spite of bursting 3" mortar high explosive shells right on the edge of the ice cliff the amounts dislodged were negligible. Then a little later, when no one was expecting it, hundreds of tons would come crashing down of their own accord! Probably a well placed charge of dynamite is the solution to the problem of creating avalanches to order.

On Monday, April 3, the Canadian instructors were given an outing and taken by truck for a swim in the Miette Hot Springs pool. It was a good thing the pool was closed to the public as no one had a swimming suit. The temperature of the sulphur water at its source was 126° F. and in the pool it was 110° — a bit relaxing.

**First Ascent of "Medicine" Peak (9,000 feet)**

On April 6 a party of six instructors and I made the first ascent of this peak which is one of the five unclimbed summits on the spur of the Colin Range immediately north of Medicine

Lake. The climbing is steep, but it is on good dark-grey limestone lying at a very steep angle. Times were 6 1/2 hours up and 4 hours down; this was slow but better times could be made in summer when these peaks are free of snow. An interesting summer trip would be the traverse of the whole ridge.

The following day an interesting experiment was carried out in the presence of Major General H. Ganong and Brigadier Musgrave at the Columbia Icefields. Four 25-pounder guns were employed to shoot high explosive shells at the ice cliffs on Snowdome and Kitchener, in order to see if any considerable falls of ice could be started by this means. In mountain warfare this manoeuvre could be used either to render a dangerous passage safe for one's own troops or to bring ice avalanches down on the enemy. While we obtained better results than with the 3" mortar the quantities of ice brought down did not come up to expectations.

It had been intended as a grand finale to the training to carry out a battalion exercise simulating the attack and defence of the Yellowhead Pass (3,711 feet). The whole details of this operation were worked out on a sand table representing the terrain in miniature, but unfortunately time did not allow this exercise to be carried out on the ground.

On April 22 the Lovat Scouts left Jasper in two special trains and one of the most interesting chapters of winter mountaineering on the North American continent was brought to an end.

**Visit of the Governor-General and Princess Alice**

One of the most delightful episodes of the whole winter was the visit of their Excellencies to Jasper. We arranged with Major Wood to place three weasels at their disposal and on Saturday, April 29, we took the vice-regal party about 2 1/2 miles up the Athabaska Glacier in these vehicles. At this point H. R. H. the Princess Alice expressed a desire to alight from the snowmobile and climb upon the moraine. Supplied with ice-axes and snow-glasses the whole party did a bit of mountaineering which they thoroughly enjoyed. That evening I was honored by being asked to project Kodachromes of the winter's training for their benefit at Major Wood's residence.

It would not give a true picture of the whole winter's operations unless a few words were said regarding casualties and accidents. Considering the fact that most of our instructors had little or no experience of winter conditions in high country and on big glaciers and snowfields, we were indeed fortunate in having only one fatality. A snowslide which fell off Mt. Nigel on January 20, when a party led by Sergt. Stan Peyto was crossing the lower part of the northeast slope, buried Cpl. Collie and he was dead when dug out. This was a case where the use of a thin red avalanche cord trailing behind each man might have enabled him to be found and rescued in time. Such a cord is standard equipment among Swiss mountain troops. Other parties were also involved in avalanches below Surprise Point, on the Bald Hills, and on some very steep slopes above timberline on Poboktan Creek. In this particular slide several men were carried down some 800 feet right into the timber and Lieut. Arnold Walker of Banff had his right leg broken. Skis, rifles, rucksacks and other equipment were lost but no fatalities occurred.

The careful use of the rope prevented several crevasse accidents from having serious consequences. One of the Canadian instructors, however, had a very narrow escape from death up on the Columbia Icefields at the head of the Athabaska Glacier during the latter part of the pilot course in December, 1943. While skiing down in the uphill track the second man in line, Corporal Labeau, suddenly broke through where absolutely no sign of a crevasse showed on the surface, and plunged down out of sight. Fortunately he lodged against a leaning flake of ice about 40 feet down and the snow that fell with him broke his fall. He was hauled out unhurt with one ski broken, his only complaint being that he did not have his camera down there to take a picture!

We had able assistance from the U. S. Army and Air Corps during the first three months of 1944. Major Walter A. Wood, who is a specialist in the aerial delivery of supplies in high mountains, did a lot of flying with our pilots, and made a valuable contribution to the success of the training. Major Innes Taylor and Mr. Belmore Browne gave us the benefit of their knowledge of the far north and of extreme cold weather conditions. Belmore Brown's inimitable drawings of how to use and how not to use such things as crampons, ice-axes, etc., were a joy to behold. Lieut. Ben Thompson of the U. S. Mountain Infantry with Sergts. Behnke, Coyte, Luginbuhl, Stoen and Walther, all lent a hand in training schemes and placed their valuable experience freely at our disposal.

Since writing the above, it has been learned that the Lovat Scouts fought with distinction in Italy, where they suffered about two hundred casualties. Major Sandy Wed-derburn, the Second in Command, was unfortunately killed in an accident. Squadron Leader Frank Smythe, who was acting as Advisor in Mountain Warfare to Field Marshall Alexander, was blown up by a shell while riding in his jeep, but was not seriously hurt. He wrote from England, but expected at that time to go back to Italy, if and when our armies advanced to the Brenner Pass. He ended his letter in characteristic fashion: "I look forward, more than I can tell you, to a breath of real mountain air, and a few new peaks to climb."

It certainly looks as if it will not be long now (April, 1945), and we will gladly give a right royal welcome to Squadron Leader Smythe and any of his brother mountaineers who wish to come and climb in the Rockies after the war. We can find them plenty of first ascents to test their mettle!

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# FAREWELL TO A GLACIER

BY J. MONROE THORINGTON

Hummingbirds are darting in surprise at a red shirt hanging on a burned tree beside the pile of saddles. The dry ground is a carpet of wild strawberries, amid the green tips of little firs growing after the old fire. This is Howse Pass, where we camped again after more than twenty years, coming in a long day from the forks of the Saskatchewan. The glittering fords of Howse River meander through a valley of blue haze, splitting on flats of magenta fireweed and crimson paintbrush. Moose wallow in the swampy backwaters of the lower river, but here bands of elk feed at the edge of timber, timid as newcomers should be. The trail on the gravel of Forbes Brook is lost in acres of feathery *dryas* seed, so carpeted as to give the appearance of golden snow. All the way to the pass, above the canyon of Conway Creek, Mt. Baker is the gleaming landmark.

There is no flowing brook in late July on the summit of Howse Pass, and water comes from isolated pools. The first stream, Ebon Creek, is the true source of Blaeberry River, reaching the valley in a sinuous canyon filled with waterfalls and bordered by windfall and fireweed. Our outfitter, Ray Lagace, is the great-grandson of Charles Lagasse (as it was then spelled), who came from Montreal with the North West Company and was sent across this pass by David Thompson in 1800, to be the first white man to reach the Canadian portion of the Columbia River overland.

We must explore this stream and we find a way for three packhorses, winding through the burned timber, across slopes where at last there are springs of water welling up through hummocks of moss and clumps of white orchids at the margin of the creek. Higher up are small pines and alders, twisted and bowed by spring snow; great rocks supporting wind-bent, gnarled larches; the horses neck-deep in nettles, hellebore and heliotrope. Strangely enough there are no bear signs, but we can see two goats on a high green slope. The sun is low behind Mt. Conway when we reach timberline, and by the time the coffee-pot is whistling, the sunset colors are on the slopes of Howse and Aiguille Peaks, which limit our view toward the watershed.

This group of little mountains on the main divide between Mt. Breaker and Howse Peak has not yet been touched by human foot. On the east they rise above Mistaya River in an unbroken precipice which we had once tried to breach by voyaging in canoe through Mistaya Lake.[1] Now we are in better state and closing on our goal.

The morning is cloudless and the cold before dawn draws us to the crackling fire and the savory drippings of the fry-pan. The rucksacks are ready and the ice-axes planted in the ground beside us. Then our guide lights his pipe and we are off in solemn row under the stars, with boot-nails clinking on the stones. Edward Feuz had come with me to Howse Pass twenty-two years before, and today again we would see the sunrise on these peaks.

Stairway and Aries Peaks are our destination, the latter still invisible behind flanking cliffs. The sky is luminous green behind the frozen gullies of Howse Peak, and Aiguille Peak lifts its dark spire from the pale glacier at its foot. We turn to watch the Freshfield peaks pick up the fiery rim of morning, the pink glow extending from Mt. Cairnes to Mt. Conway, with violet shadow outlining the eastern glaciers falling to the Blaeberry. The central peaks rise above this crest as we climb higher, Mts. Barnard and Freshfield shining like new-lit candles. West and north the gigantic spire of Mt. Forbes, the five peaks of the Lyell snowfield, and last of all Mt. Columbia and The Twins stand in radiant light.

1 *A.A.J.*, iv, 495.

**The Freshfield Group From Niverville Meadow.** *J.M. Thorington*

Now we climb the shaly slopes of Stairway and the sun comes over to meet us not long before we reach its summit, a top that seems to overhang the sea-green lakes of Cirque and Chephren, and the paler, earth-stained Wildfowl waters in the Mistaya Valley. Aiguille Peak is now below us ("It will take some spiking," says Edward), merged against the giant cliff of Howse Peak. The serrate row of Murchison towers hides the Saskatchewan from view in the northeast.

The ceremonies of second breakfast and the building of a cairn distract momentarily from the widespread panorama, and soon we drop down to the southern fork of the valley, where we can reascend and gain our second mountain. Aries Peak (9,900 feet) is ornamented with a miniature glacier ending in a lake with tiny icebergs, and snow slopes of some steepness intersperse the shale. So that it should not have been carried for nothing, the rope is brought out and a few steps cut before our goal is attained.

Here we traverse the slabs of the crest, building several little stonemen, for the highest point is not immediately evident. The cold is still intense though the air is calm, but one forgets discomfort in the breathless expanse of peaks and glaciers building the watershed to the south. Then, far through the gorge of the Blaeberry, one sees the spires of the Bugaboos and all the southern Selkirks while, to the right of the Freshfield peaks, Bush Mountain and some of the northern Selkirks bound the horizon.

Down to the valley again, to bubbling rills below the snow, the gay flowers of the hillside and the sulphury seed-pods of giant anemone nodding in the breeze. Just above camp we chance upon the summer bedding-ground of mule deer, and six bucks with velvet horns arch stiff-legged bounds toward the forest covering. At camp we meet Ray Lagace returning from a trip for more provisions. He has a packsack on his back; in his right hand is the axe with which he has blazed out a trail; in his left, through 2,000 vertical feet of windfall he has balanced a large raisin pie, bent but not broken!

From Howse Pass, on another day, we ride to the Freshfield Glacier, an ancient white goat running ahead across the gravel bars and preceding us up the brook. The trail is in dense timber, overhead light almost excluded. The fallen logs from time long past are heavy with moss and white with bunchberry; the little clearings are carpeted with twin-flower.

This is a place of mystery we have come to know in six journeys through almost a quarter of a century. It never lacks final suspense. As the trees thin out, how will the glacier look; has it retreated to its upper snows, leaving the great boulders grounded at last? Soon we are there, in the tiny campground where all the trees bear registers of long-departed packtrains. Our horses, unloaded, wander out to drink from the rumbling glacial stream and then turn off to the grassy slide, to browse in the lush foliage of false forget-me-not, queen's lace and columbine.

We measure the glacier again. Just 2,100 feet of terminal ice have melted away since first we saw it; the tongue is thin now and undernourished, a dragon stricken with a wasting disease. The great boulder, still on the ice, is rapidly nearing its terminus. The stream from Coronation Mountain has at last cut free and forms a lake in front of the snout, the main brook emerging from the far eastern angle.

The Niverville meadow is still the most wildly beautiful spot in all the Rockies. No one who has visited it thinks otherwise. One goes for two hours over clearest ice, with all the attendant séracs, tables, serpentine water-channels and glacier mills, to gain the slopes of a green promontory projecting into this arctic bowl. At the top is a meadow amid stunted, wind-blown spruces, and the marks of an old camp (that was once ours) beside a sparkling spring. On a day late in July we lay there for hours after our picnic, looking past the slopes of paintbrush and anemone tufts to the rim

of peaks beyond the succession of twisted moraines and icefalls; to summits that once were ours in golden days and now once more are as far away as the moon. We walk around this meadow in the cool breeze of afternoon, examining its edges, the little lake and all familiar aspects, as one does in a pleasant place that one may not see again. This is a moment crowning many yesterdays of hard-won triumph in sunshine and storm, but even this we cannot hold.

After a last pipe, with shouldered rucksacks we walk down the ice, turning now and again as one well-won summit after another vanishes beyond a snowy corner, grateful that for a little while we have been in tune with this miraculous wonderland above the line of snow.

# THE NORTH RIDGE OF MT. SWANZY

BY NORMAN BREWSTER

In the literature of the Selkirks there are many dolorous references to bad weather. My own experience influences me to feel a kind of retroactive sympathy. But I should like to record the fact that there can be clear and rainless summers in these mountains. It is a pleasure to tell it, though of what general use the information can be, I am not sure. For, if it be not the immutable law of the Selkirks, it has certainly been the rule in my time that the arrival of a considerable number of mountaineers at Glacier provokes a downpour of rain which continues with malicious constancy until they depart.

Last summer the rainy days were almost as few as the visiting climbers, and the latter amounted to about half a dozen. Amongst them were Andrew Kauffman, of the Harvard Mountaineering Club, and his wife, Betty, whose apparently waterproof affection for the Selkirks had not been weakened by the two previous wet summers spent in the mountains near Glacier. The arrival of Maynard Miller, another Harvard mountaineer with considerable experience in this area, seemed to call for more than an ordinary climb, since Maynard had only a few days before returning to his duties with the U.S. Navy.

During the previous summer I had returned from Lily Col across the flanks of the Dome, Rampart and Afton, to Mt. Abbott and Glacier. Apart from the feeling that one leg had been permanently shortened by this ghastly traverse, the chief impression remaining was of the long north ridge of Mt. Swanzy, rising in a series of steps which seemed to promise some climbing problems.

It was not difficult to interest Andy and Betty in the ridge, since it appeared that it had not been previously climbed, and they in turn managed to convince Maynard. So on August 5, shortly after 2.00 a.m., we left the old hotel grounds and walked up the Asulkan trail. I remember well the remarkable sensation of not being anxious about the weather; it had been perfect for a long time and we assumed, quite rightly, that it would go on being perfect.

After reaching the small box canyon at the head of the lower Asulkan valley we crossed the brook and turning to the west proceeded up the large, shallow gully which points toward the Dome. At daybreak we had reached the edge of the glacier, and were directly below Sapphire Col. The ice being bare and hard-frozen we put on crampons and walked up the gradually steepening slopes. We should have arrived at the col in about an hour, by an easy and obvious route, but for a rather involved diversion. Whilst tottering about on a steep traverse I slipped, this silly manoeuvre resulting in some badly skinned knuckles for Betty and myself. However, Andy and Maynard immediately grasped the heaven-sent opportunity to abandon an essentially dull traverse, and exercise their ice-craft by hewing a way straight through the icefall. If I offered to enliven our original line of passage by slipping once more it was to no avail. The icefall beckoned, and through the icefall we went. Here Betty and I had unlimited time to lick our barked knuckles, while shifting from one cold foot to another and listening to the exclamations of joy which descended from above accompanied by showers of ice chips. The route proved to be everything that our ice enthusiasts had hoped, and by the time we had negotiated its difficulties and arrived at Sapphire Col it was 8 o'clock. Nevertheless, we all felt that there was more virtue in leisurely enjoyment of a beautiful and sunny day than in rude haste, and so we had an unhurried second breakfast before descending about 400 feet to Swanzy Glacier on the western side of the col. Thence we ascended to Lily Col

and began descending Lily Glacier, keeping on its true left side which is confined by the north ridge of Mt. Swanzy.

After descending a considerable distance we began to traverse on the snow slopes coming down from the north ridge, and finally attained without difficulty the point where the lowest band of snow reaches the crest of the ridge. Andy estimates this point to be about 8,500 feet, although I had the impression that it was about 500 feet lower.

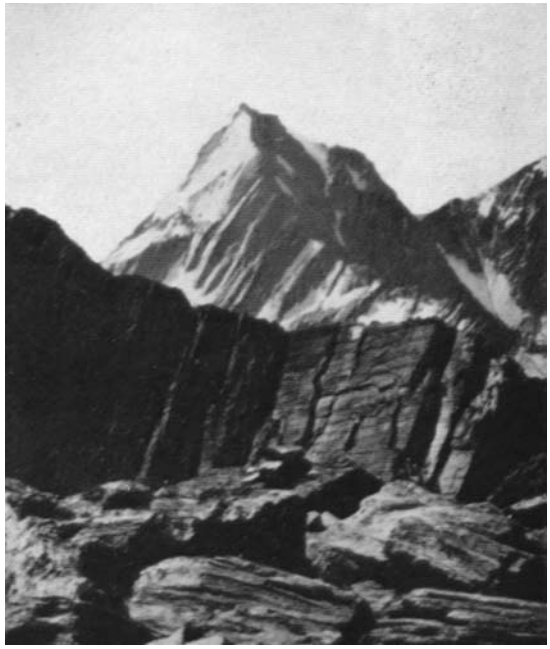
None of us being in very good shape for prolonged exertion, we rested here for some time. It must have been nearly 11 o'clock when Betty and I tied on one rope, Andy and Maynard the other, and we began to ascend the ridge.

Here it was broad and easy and we climbed rapidly for half an hour or so. The first difficulty appeared where one of the eastern buttresses joins the ridge to form a hundred-foot cliff. Betty and I, being slightly ahead of the others, made a direct assault on this formidable crag which resulted in conclusive failure. In the meantime Andy and Maynard came up and we began a short traverse below the ridge in the only possible direction, that is on the west side, with the hope of regaining the ridge immediately above the cliff. Small, shallow couloirs leading in this direction offered promise, and we attacked with determination. But we were defeated by the dangerous looseness of the rock. In spite of the most painstaking efforts it was impossible to prevent showers of stones falling on the climber below. Furthermore, the couloirs continued at a very steep angle and without any break which would allow one to stand securely and bring up the lower climber in safety. After wasting about two hours in this uncomfortable spot we had accomplished nothing but the removal of a great deal of loose rock. We now returned to a crack of rather desperate appearance which ascends the west side of the ridge about sixty feet from the cliff we were trying to detour. Our attempt to climb the crack also ended in failure, but here we may have been influenced by a reaction from the past two hours of fruitless effort. At any rate we all agreed later that the crack should be possible, and could be a better route than the one we eventually used.

Betty suggested our final attempt, an eighty-foot chimney about fifty feet south of the crack. Little more than a crack itself at the bottom, the upper part widened to five feet or so. The top was chocked with a mass of loose rocks, weighing several tons, which did not appear to be secure. We changed positions here, and Betty and Maynard proceeded up the chimney without any difficulties. They then hauled up all four rucksacks, a rather lengthy and arduous procedure, before Andy and I rejoined them. The chimney, although easy, cannot be considered a safe route until the pendulous mass of loose chock stones is removed from its top.

A short scramble over loose rocks brought us, at about 3.30 p.m., to the solid crest of the north ridge once more. Almost immediately we were forced on to the east face in a somewhat spectacular traverse. The east face here is smooth, solid rock, dropping off at a sixty-degree angle to what seems an infinite depth. However, our misgivings were relieved by the discovery that it was seamed by horizontal and vertical cracks which offered continuous solid holds, and which widened enough at frequent intervals to allow constant belays. Here we were all roped together. There seems to be no alternative to this long traverse, and we felt that it was great good luck that the cracks never quite petered out, but finally led us back to the ridge at a knifelike section overhanging the west face. After a short stretch which was negotiated *a cheval,* some brief, steep snow slopes led us to a comfortable platform about sixty feet below the summit.

For the past hour the cairn on the summit of Swanzy had appeared intermittently. I think we were all gripped by a feeling of suspense as each fresh problem was overcome and we looked ahead somewhat anxiously for the next one. From the character of the ridge, an impasse in this



Top Left
**On The North Ridge.** *A.J. Kauffman*

Centre Right
**Mt. Swanzy** *A.J. Kauffman*

Bottom Left
**The Rotten Chimney** *A.J. Kauffman*

section seemed not unlikely and the thought of turning back and almost inevitably spending the night in an exposed place was a cheerless one. Now we were within a rope's length of the cairn and the thought confronted us squarely. The summit tower overhung on all sides and to our dismayed glance seemed invulnerable.

It was only after a detailed scrutiny that we noticed a crack running up through the bulge of the eastern face. To our oblique line of vision it appeared hopelessly narrow. But it was obviously our only chance. As we made our way to a point directly below it, it still appeared too narrow. However, when Maynard and I reached its base we found that it was deep enough and just wide enough to get into. Much to my relief Maynard volunteered to try it, and soon disappeared above me. The slithering, scraping noises which floated down to anxious ears were suddenly supplanted by a shout of triumph — the summit was ours! I scrambled up immediately, much comforted by the fact that the rope was above rather than below me. Maynard and I then hauled up rucksacks before Andy and Betty came up.

By 6.00 p.m. we all sat on the summit, which, despite the threatening aspect it presents to the north, east and west, rolls away in a broad snowfield to the southwest. A holiday spirit possessed us and we simply ignored the passage of time. Released from the threat of spending the night on the north ridge we felt quite happy to spend it anywhere else. So we ate the battered remains of our food, took pictures and enjoyed the gorgeous view. About 6.40 p.m. we reluctantly began to walk across the snow to the brink of the southern face. Here we launched out in a fine, time-saving glissade, descending about 700 feet. We were happily unable to locate the "steep slabs of the south face" which are mentioned in the *Guide to the Interior Ranges.* In fact the broad snow slope which extends the length of the south face appears to me to cover ice which joins the lower part of the Swanzy Glacier. Unfortunately we did not follow it to the presumed junction, but cut off to the east in the direction of Sapphire Col, and were shortly involved again with loose rocks on steep slopes leading down to Swanzy Glacier.

Here again I was privileged to hear with admiration Andy's masterful invective, called forth, it seems by only one thing, bombardment by falling stones. I have an imperishable memory of a solid, dramatic figure below me in the gathering gloom, scorning the fifty-pound boulder whizzing by his head, as he addresses a tremendous reprimand to the mountain. It was necessary for Betty and myself on the one rope to stop moving entirely, until Andy and Maynard had gotten out of range. Then, although we crossed the glacier rapidly, and ascended to Sapphire Col at a breathless rate, it was very dark by the time we had put on crampons and started down toward the Asulkan Valley. After a descent of about 800 feet to the edge of a badly crevassed area of steep ice, we halted unanimously and with a feeling of righteousness, as well as of slight weariness, trudged slowly back to the col and disposed ourselves for the night.

Maynard chose a comparatively soft spot on some wettish moss, and tucking himself beneath a map of Glacier Park, bade us a cheerful goodnight. The rest of us preferred the drier rocks at the base of the Dome, where we huddled together for warmth. It was a glorious night, and although it was freezing hard we were very glad to rest, and the total effect was more enjoyable than otherwise. However, we did not fail to note the first faint signs of dawn. Maynard, still pleasantly reclining under two square feet of map, contrived to make us some miraculous hot soup (without disturbing his protective covering)..

Enlivened by this wondrous broth we were able to appreciate the splendors of a beautiful sunrise as we made our way by an easy, uneventful route down the glacier. We arrived home at 9.30, feeling remarkably fresh.

Our record of about 31 hours will probably never be challenged; we wasted a good deal of time purely for fun, and a good deal more through errors we wished to avoid but didn't. In addition, we were not in shape for such a climb. The next party should make it in about half the time, with, of course, no necessity to spend the night out. By avoiding our mistake in turning to our left too quickly on the glissade down the south face it should be possible to make a very rapid and effortless descent of the entire peak. I believe this snow slope to be permanent, as I have noticed its existence throughout several years of subnormal snowfall. I might mention that we alternated the lead amongst all four of our party throughout the climb, doubtless losing a little time in this way too. But we felt amply repaid by the feeling of satisfaction we all shared in its success.

The approach we made via the Asulkan trail and Sapphire Col is shorter and easier than the traverse from Mt. Abbott to Lily Glacier, although, of course, on the latter one could dispense with the crampons which we found essential on Asulkan Glacier.

Of all the climbs available to a party based at Glacier I believe this is the finest. It is more varied and in places more difficult than the northwest arête of Sir Donald, and in all presents a nice balance of snow, ice and first-class rock climbing that is not too frequently found. The giddy traverse on the east face, and the final dramatic approach through a narrow chimney to the summit, are, I might say, alone worth the price of admission. The others agree with me in this opinion. I know, however, that my own judgment is influenced by the mystical belief that it was a first ascent, and even more by the atmosphere of charm given the whole trip by delightful companions. It is impossible to evaluate such a climb in a truly objective mood. I only hope that others will find it as good and satisfying as we did.

# THE SASKATCHEWAN GLACIER HUT

BY MAJOR REX GIBSON, R.C.A.

The Club has acquired a new hut. Its rather curious history is told in part in the accompanying illustrations. It is a legacy from World War II.

During the summer of 1942 the U. S. Army maintained quite a large camp near the tongue of the Saskatchewan Glacier, and from this site they tested all manner of vehicles, trucks, snowmobiles, etc., which were driven right up the glacier tongue and out on to the icefields.

The mess hall, which was the only semi-permanent building in the camp, was left behind when the U. S. troops pulled out, but as it was only of light frame construction it collapsed under the exceptionally heavy snowfall of the winter of 1942-43.

When Squadron Leader Frank Smythe and the writer visited the site in October, 1943, its value as a training area for the Lovat Scouts was obvious, and the Canadian Army Engineers from M. D. 13 rebuilt a smaller hut (18 feet by 25 feet) from the ruins of the old one, using salvaged materials. On completion of the Army training, negotiations were undertaken with the Superintendent of Banff National Park and the hut is now leased to the Club. After camp this year a party of volunteers shingled the roof and painted doors and window frames and also cleaned up the whole campsite. A good, big cook stove was taken in by trailer and the hut is complete with tables, benches and cooking utensils. It is proposed to put in Army type double-decker steel cots and mattresses next summer (1946). Intending visitors should however bring their own sleeping bags.

The new hut is reached by a side road which angles off from the Jasper-Lake Louise highway about a quarter-mile south of the concrete bridge over the narrow canyon of the North Fork of the Saskatchewan River. Cars can be driven to the door of the hut, but persons using the road will have to be on the lookout for the odd fallen tree or rock. After driving in about one-half mile one has to cross the lower gravel flats and rejoin the road on the far side near the exit of the upper canyon. From this point the road climbs steeply over a high ridge from the top of which a fine view is obtained of the tongue of the Saskatchewan Glacier. This ice tongue is not visible from the main highway. The hut itself is about one mile below the tongue of the glacier and is on a flat bench some ten feet above the general level of the main gravel flats. A most convenient creek runs within ten yards of the front door.

The new hut gives access to a large area of fine mountain country, which previously was inaccessible except by packtrain via the valley of the Alexandra River. Peaks that can conveniently be climbed in one day from the hut include Mts. Athabaska, Andromeda, Saskatchewan, Castleguard and a number of smaller summits. Castleguard meadows, a renowned beauty spot, can now be reached by an easy trip of three miles over the relatively flat ice tongue of the main Saskatchewan Glacier, and Mt. Bryce is now brought within range of backpackers, who could establish their camp on Thompson Pass in one day from the hut.

Until such time as the Jasper-Lake Louise highway is kept open in wintertime, the hut will not be of much value to skiers, nor is the skiing in the immediate vicinity particularly attractive, as the main glacier tongue is too flat. Distance is also against its use as it is approximately 82 miles from Jasper and 110 miles from Banff.

**Saskatchewan Glacier Hut, 1945.** *Rex Gibson*


**The Skiing Jackass.** *Rex Gibson*

**Saskatchewan Glacier Hut, 1944.** *Rex Gibson*

# CAMPING IN SIMON CREEK

BY DOROTHY PILLEY RICHARDS

The marmots were disturbed. Two days before a gang of bears disguised as eminent mountaineers had molested them. And here were three more strange animals spoiling the peace of a perfect evening. The late afternoon sunshine was bringing out every fold and hollow of the long belt of alplands overlooking Simon Creek and leading round from Angle Peak to the very snout of the Fraser Glacier.

We—Emmie Brooks, I.A.R., and I—had come up the wall above camp to the Erebus-Eremite Col, thence over Eremite and now we were ambling, content, carefree and timeless—i.e., all three watchless—on our way home. The temptation at every shoulder to sit down and let the eye lingeringly explore the magnificent recesses of Simon, Mastodon and Elephas Glaciers, radiating like the spokes of a wheel, was indulged. A thundery aspect in the indigo-blue masses of cloud streaming up beyond Fraser should have urged our sauntering steps. By the time we were walking up the long, white, billowy incline to the pass a thunderstorm was becoming an actuality. Ken Jones, down in camp, looked at his clock and remarked, "It's getting dark an hour too soon tonight." We timeless strollers were much surprised too. Never having seen the pass, we had played for safety and swung well left of what looked in the dusk like an icefall. If only we had walked straight through! The ice is like a boulevard and we'd have been home for a late supper. As it was, when night arrived in sheets of rain we were feeling our way low down—just, it seemed, above the valley floor. We had plenty of time to look at that valley floor through the next seven hours, for the scree-littered ledges we were creeping down tilted over into nothing. We might have been ten feet up or ten thousand. (Actually, in the morning we saw there were two hundred feet of overhanging cliff just below us.) Suddenly we realized that the only prudent thing was to sit the night out where we were. One's anger warms one briefly at such moments. The transition is so swift. One minute no worries at all and a pleasant interest in "What's cooking?" in camp. Next a dunder-headed rage at wasted time. And next, fatalistic acceptance and gratitude for a few remaining candies, nuts and raisins which Emmie produced from the depths of her sack and of course the passing round of the indispensable Snack-tabs.

Certainly the night did us proud. It began as though heaven were a hose pipe. Our lodgment was a steep shelf of scree, nominally sheltered by a low, greasy bulge of rock and with no room to move. Whatever we put down of ropes, sacks, etc., to sit on, the rivers pouring down our cliff everywhere soon submerged them. But we found it better to sit in the torrent bed than to stand up in the breezes. Similar streamlets opposite on Paragon and Outpost provided us with a rare spectacle. Loosened scree was streaming down their gullies—the flying fragments striking out cascades of fire just as we had seen them do once before on the dread precipices of the Aiguille Noir de Peuteret. The lightning outdid itself—sometimes a discharge would seem to rush up from the valley below towards us and for awhile the storm might have been hung from a point straight over our heads, so persistently did it swing round the circle of peaks above us. As the night wore on, it receded, and moonlight began to silver the jagged rim of the world and create illusions of dawn—only about four hours before its time! Banks of soft cotton-wool clouds posed at various angles in the valley beneath us and departed. And with the clearing sky cold crept in.

Meanwhile we three were maintaining a considerable volume of activity. There was singing—anything anyone knew twice over (Emmie's supplies seemed inexhaustible), much mutual

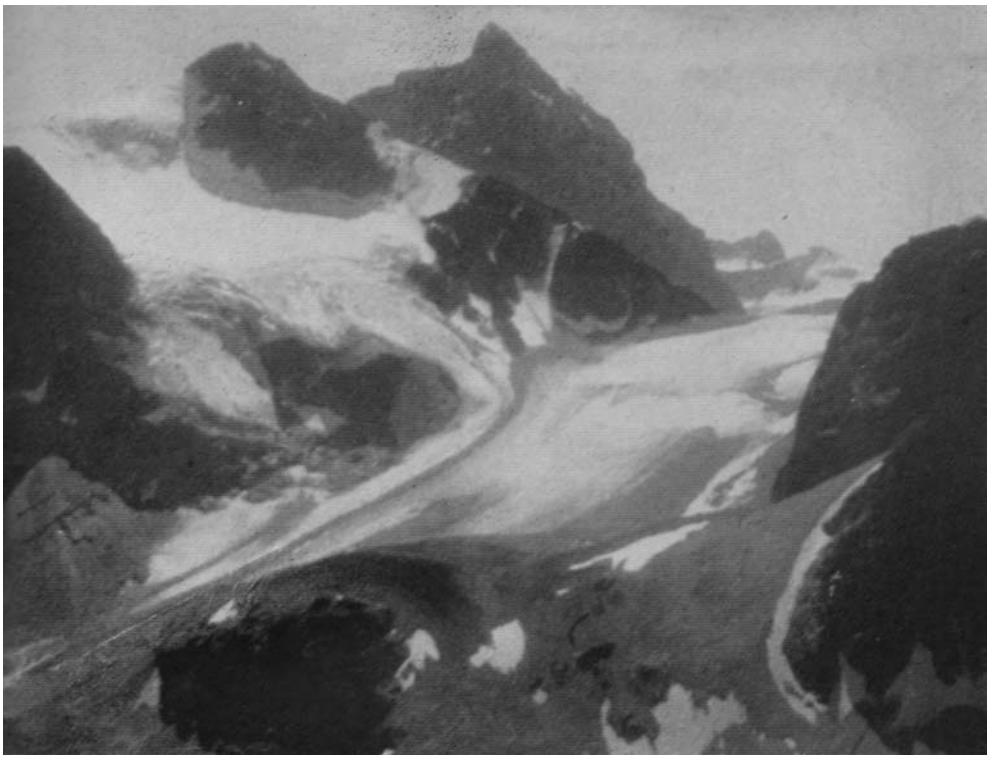
pounding and backslapping, much kicking of feet and experimentation as to warmer crouchings. The trouble about too much motion was that icy-cold water then flooded partially warm skin areas. The more we could see with the moon's aid, the less safe any movement before daylight appeared. When morning came were we glad to have stopped where we had ? With the first light, in a rather trance-like fashion, we made all speed back to camp, contrite lest any anxiety should have been caused. Coals of fire, cups of steaming tea and jugs of boiling water were our welcome from Eric Brooks and Elizabeth Brett.

These experiences led us to fall in love with Simon Creek and our plans thenceforward were shaped by a design to camp and explore and enjoy those flowery grasslands, those radial valleys. Emmie started us on our way with a packload of friandises as far as the Lovat eyesore. After some days in the partial comforts of the Memorial Hut (packrat kill, 5; mosquito kill, 510), we loaded up with what we hoped would last us five days (which stretched to eight) and rolled our humps back over the pass, much admiring en route the singular and airy convenience of our night perch. "But," we kept on saying, "how easily any other line would have taken us home!" Down below the model snout which the Fraser ice pushes into Simon Creek we kept looking for the ideal campsite and struck it straight under Erebus just before heavy thunder and light rain started. We considered one or two sites in the primeval forest but found them, though nicely sheltered, gloomy if not spooky. Our last memory of the evening was the glimmering of tall groves of false hellebore in the leaping firelight. This plant always makes me think of Balin and Balan, Sir Kay and other Knights of the Round Table. What a pleasure to strike the caitiff down with one blow of the axe!

Morning came in with mist. Heavy grey clouds all day processioned out of the west. Brief gleams of sunshine punctuated a drizzle. From time to time we could hear the uproars of stone avalanches on Erebus; we didn't yet know where they came from. Our idea was to find the natural bridge mentioned in Dr. Thorington's invaluable vade mecum. Following down the noisy stream we found it—two beetling rocks with a ten-foot gap and a considerable foam-filled chasm below. Nearby is an ancient campsite (a relic of the Wates-Gibson party of 1933). We beavered hard and in the end got some still substantial if rotten logs bridging the gulf, crossed (with a rope on) and then met an admonishing rainstorm. We took the hint and returned to camp.

When the next day rolled round on exactly the same weather pattern we decided to start rationing ourselves. The fact is we were itching to go and see how the tremendous west slabs of Erebus would "go" taken from the foot up, and we knew they were no place for rainy weather. Stone avalanches from somewhere up there sounded about every hour.

Goat tracks, smelling of the Alps, led us up next morning in divinely perfect weather to a shrunken glacier underneath these slabs. They slope back, vast beyond estimation, to the skyline and are overhung on the left by the final pyramids of Erebus from which an intermittent trickle of decaying rock ricochets down in prodigious leaps. But the flying bits keep close to the left under Erebus, though they reach far down on the glacier. In the middle of the slabs a huge low relief arch appears where a top layer has fallen away. We began at the lowest point to the right of this arch, curved across to above its keystone and then struck up to the ridge. We put on our rubbers and made rapid progress. It was delectable going—unstrenuous and aerial— but, as one mounted, the perspective of the scene worked strangely on the imagination. Careful scrutiny satisfies one that the angle is roughly constant, nonetheless the imagination remains quite unconvinced. At times the whole slope seems to rear up, though the flat sole of one's rubber-soled shoe is moulding itself as tenaciously as ever to the rough surface. Here and there charming sequences of ripples, possibly ancient wave marks, provide the shallowest of staircases. Sometimes for hundreds of feet at a time



**Fraser Glacier.** *D.P. Richards*

(The cliff where we slept in centre foreground).

**Mts. Elephas And Mastodon.**
*D.P. Richards*

**Mt. Erebus, Edge Of Great Slabs.**
*D.P. Richards*

**Erebus Slabs From Mastodon Glacier.**
*D.P. Richards*

there is nothing that the fingers would be interested in. As usual one thinks, after a bit, that another line might have been a better choice.

Some 200 feet below the roof tree a problem arose. The incessant rock avalanches from the summit pyramid had generated a fine dust, slippery as the devil, which the wind had distributed across our path. Rubber shoes when lubricated with this sort of granular grit feel far from comfortable with 1,500 feet of unbroken slab dropping below. We were in some hesitation when we spied a thin crack running up to the skyline. Once we gained it we knew that all was clear and we were soon looking down the really stupendous steeps plunging down to the Eremite Glacier. It was August 11 and gone were the pleasant tents of the Alpine Camp which had been our late July home. As we wandered along the crest we much admired the feat of Eric Brooks and Bob Hind who had rushed up from the camp and down in record time. After lunch we spiralled up the final pyramid over slabby terraces through amusing little chimneys cutting through overhanging walls. In the cairn were notes of four former ascents, one from the Fraser Glacier, three from the Eremite Col.

As a homeward route we chose the broken west ridge —all easy going. The camp was undisturbed, in spite of fresh bear-sign noted. Probably the remains of our stores didn't tempt him. The truth is we were now pretty well down to rice varied by raisins.

From Erebus summit we had been much allured by the great sweep of country crossing three wide glaciers leading from the Fraser Glacier towards Beacon Lake under Mastodon and Elephas. One or other we decided should be our next destination even if we should starve in the attempt. But first we would move camp, crossing the snout of Fraser Glacier if necessary or its stream if possible. Whether the sacks were heavy or breakfast (rice) light, anyhow it seemed impossible to pass so many beauty spots in the meadows without sitting down every few steps to admire them. Rivulets came by dancing through rock gardens. The purple of the willow herb lined the further vistas. The beautiful symmetrical dome of Fraser Glacier filled the head of the valley. Halfway to it—in one of our spells of heather-cushioned ease—we spied an immense chunk of brown rock which possibly spanned the torrent. It proved to be quite a manageable natural bridge. We slung the sacks across on a rope. Other parties may like to know of its existence so high up, exactly where one wants it.

We camped that night on a soft green shelf starred with tiny white flowers under an overhanging sheltering cliff with just room for the pup tent, a tinkling stream a few yards on one side and a clump of dwarf juniper supplying fuel and bedding on the other. I want no more from Paradise. Below us the Fraser Glacier; opposite the many-colored towering crags of Eremite.

Mastodon next day was chiefly a contouring ramble with all the pleasures of picking a way onto, across and off three glaciers and their adjoining moraines. Elephas Glacier however is decaying within. We were confronted by such complicated undercut holes, starfish-shaped monstrosities and booby-trap caverns, that being a cautious pair we made a considerable detour under the cliffs of Elephas to avoid them. A party of two, two days from anywhere, has a kind of wary feeling. From the summit of Mastodon we overlooked the headwaters of the Fraser and were struck again by the ranges of little-visited snow summits which stand out in the west.

We said goodbye to Simon Creek from its namesake's summit, a viewpoint of remarkable grandeur. "Plunges" is the word for what the eye does into the Bennington Gorge. There were all the peaks we had visited this summer from Paragon round to Clitheroe, grey and ominous under a hurrying, murky ceiling. Really bad weather was brewing. It hurried us off Simon, back up McDonell's pretty little ridge and down to our sacks perched high out of pica reach on the glacier. We made Memorial Hut this time well before the storm shut down! A good thing, too, for it kept

up through four days till the flood waters of the swamp were licking at the doorstep and the walls creaked impendingly. Packrats, mosquitoes and all, a sound roof and a good stove have their merits at such times!

When snow replaced the rain, the sky cleared. We came out via Meadow Creek, of which the first half is as entrancing as the last half is frustrating. At Amethyst Lake we met two exploring G.I.'s who casually mentioned V-J Day and the atomic bomb. News from Mars would not have surprised us more. We halted for a mid-day rest just before the trail crosses Meadow Creek where the flats offered a singularly synoptic view of Simon, lily-white above the Ramparts. There, agleam with new snow, were infinite promises and perils, an emblem indeed of what the new age has to face.

# THE 1945 SKI CAMP

BY REX GIBSON

Once again ski camp has come and gone and the 1945 camp can fairly be voted a great success. Due to the stress of war there was a preponderance of the fair sex, for the ladies outnumbered the men by ten to six. While this created a somewhat overcrowded situation in the ladies' room, it did provide an ample reservoir of domestic help and the dishwashing was done in short order.

Vancouver supplied a splendid contingent, six girls led by Peggy Flood, who is a ski-camp veteran, and Bob Trerise; Barbara Richardson came from Calgary; Amy Mac-Gowan, an Eastern skier, came from Kelowna; Sergeant Ernest and Mrs. "Trudy" Schreiber, both experienced skiers who had done much skiing in the Austrian Alps, were a welcome addition to the party. Ernest spent many hours of devoted labor on the practice slopes instructing the would-be experts and Trudy with her knowledge of first aid was much in demand for the treatment of minor sprains and bruises. Rodney Adamson, our new member from Toronto, was the life of the party and earned for himself the cognomen "The Toronto Express," thanks to his fondness for schussing all the steepest slopes. On one of these occasions one of his skis came off and preceded him down the hill — nothing daunted Rodney completed the schuss on one ski! The Edmonton contingent consisted of Dorothy Hartley, who has the unique record of having been to all the ski camps, also Peter Methuen, camp boy, and the writer. Last, but not least, the mainstay of the camp was our good friend Ken Jones, guide, cook, backpacker and campfire philosopher. Ken was sporting a fine red beard which gave him quite a venerable appearance, but, alas, the beard is due to come off on 1st May!

Camp did not open very auspiciously as the weather was warm when we left Field by truck on Friday afternoon, March 30. We had to ski right from the road junction and got away to a late start in a wet snowstorm. As a result it was a weary party that struggled into Wapta Bungalows in the dark that night. Heavy packs and sticky snow are a poor combination. Next day we had better weather but made slow time again, as the trail had to be re-broken and the bulk of the climbing has to be done on the second leg of the trip in.

On Sunday the Vancouver party came in from Takkakaw and our camp was complete.

Snow conditions were almost perfect throughout the entire camp with deep powder snow right up to the tops of all the passes and no evidence of wind crust anywhere. At this season of the year bright, sunny days usually mean sun crust on all slopes with a southern exposure and the absence of much sunshine, while it meant quite a bit of poor light for running steep slopes, did keep the snow in first-class shape.

During the first week trips were made to Kiwetinok, Emerald and Barometer Passes and good skiing was enjoyed in several of the creek beds — that coming down from the center of the Whaleback Ridge being especially popular. In between times the enthusiasts would hie them to the practice slopes at the head of the valley.

A huge slide had come down off the east face of President and fallen diagonally across the main glacier, piling up in great blocks under the walls of Barometer Peak. Knowing that the slide was down, we felt safer on President Glacier, but it is a hazard which must always be reckoned with by future parties.

Friday, April 6, the whole party except Irene and Winnie went out to climb Isolated Peak (9,234 feet) and the peak was finally ascended successfully. Times were slow, but visibility was

poor and we had to make a big detour over towards McArthur to avoid some very steep slopes on the glacier.

Saturday was again a snowy day with low clouds, but nothing could dampen the ardor of the gang and good running was enjoyed below Kerr.

We had singsongs every evening and the fireside circle was a joy to behold.

Sunday, April 8, was the day of departure for the world's workers and Ken took eight of these down, leaving at 7.30 a.m. Those who were west-bound, however, did not catch their train. Those staying on had a rest day and Winnie and I baked a chocolate cake in honor of Ernest and Trudy's fifteenth wedding1 anniversary.

Monday, April 9, a party of six climbed Mt. Kerr (9,394 feet) under adverse weather conditions, as there was a high northwest wind blowing and temperature was around 10° above. Five minutes on the summit was enough. Times were 4 1/2 hours up and 2 hours down.

Tuesday was another stormy day but we managed to get some Kodachromes of crampon work and ice cutting on the ice of President Glacier in the intervals of violent snow storms.

The ascent of President (10,297 feet) on Wednesday, April 11, was the big event of the whole trip and we were indeed lucky in having a bright, sunny and almost windless day for the climb. Leaving the hut at 8.10 a.m., we were on President Col in 3 hours 10 minutes and were able to ski right up to the col as the bergschrund was completely filled in. We had to ski across the big snowslide on our way up. Due to deep snow conditions and lack of wind crust the climb (on crampons) from the col to the summit took l 1/4 hours — usual time in summer is 45 minutes. We were able to bask in the sunshine on top and spent over an hour there. The views to the north and east were good but heavy clouds hid the Lake Louise and Goodsir groups. The run down was perfect and the 3,000 feet of vertical descent melted away under our stem turns and schusses all too quickly. We were back in the hut soon after 4.00 p.m. The President climb made a most fitting climax to a very successful camp.

Thursday afternoon we ran down to Takkakaw on good snow in a little over 2 hours and spent the night there. Friday, April 13, was a brilliantly sunny day and it was with many a backward glance up the Yoho Valley that we sped down to the road junction — another two-hour trip. Just as the trip in had been a "bear cat," so the trip out was perfect and the snow was "good to the last flake."

# EARLY EXPLORERS OF THE WEST[1]

BY ELIZABETH PARKER

## Daniel Williams Harmon

Harmon's Journal, published in 1820, covers time between 1800 and 1819, and territory between Montreal and Stewart Lake on the western slope of the Rockies north. He was a contemporary of Thompson and Henry and Fraser, all in the service of the North West Company. It was not until 1808 that he was sent as far west as the. Athabaska country when we find him at Fort Chipewyan on the lake where he met and entertained for a day, Simon Fraser coming from the Pacific Coast. During part of two years Harmon managed the Company's affairs in the Peace River country from his post, Fort Dunvegan. An entry in his journal records the death in 1809 of Andrew, "a natural son of Sir Alexander Mackenzie, an amiable young man."

In October, 1810, Harmon was transferred to Stewart Lake in New Caledonia, as Northern British Columbia was then called, so named by Simon Fraser owing to the Scottish character of the landscape. Fraser named Stewart Lake also, for John Stewart, one of the Company's notable traders in that region and an uncle of Lord Strathcona. It was a letter from this uncle, after retirement on his native heath, to Governor Simpson in Montreal that won for young Donald A. Smith a junior clerkship in the Hudson's Bay Company on the Labrador Coast.

The remaining nine years of Harmon's service were spent at Fort St. James on Stewart Lake and at Fort Fraser on Fraser Lake, 45 miles south by trail. St. James was the first and Fraser the second fort built west of the Great Divide. The two lakes lie between Mackenzie's route south and the Canadian National Railways route north. It was toward the end of October that Harmon crossed the mountains from his post on the Peace where he had been happy both in work and in leisure. The high mountains impressed him profoundly, "towering majestically towards the heavens, perpetually whitened by snows never dissolved by solar heat." He entered into the Company's business with his wonted energy and managed the Indians with tact and firmness. His journal contains an account of how he mastered the young Chief of the Carrier tribe who afterwards became a great man among his own people.

'Kwah began to bully the new officer who promptly seized a stick and gave him a sound thrashing. Some little time afterwards, 'Kwah made a feast and invited Harmon. Fearing treachery and armed with a pair of pistols besides the sword belonging to the Company's uniform, the trader went to the feast, finding nearly a hundred Indians assembled. The Chief was in great good humor, intimating in his speech that the white man had conquered him; that he was now like Harmon's wife who had punished him as he punished his own wives when they were naughty.

After nearly three years at Fort St. James, Harmon returned to Fort Dunvegan on business for the Company, and the diary shows how he enjoyed the visit: "Many a pleasant scene is recalled by memory and many agreeable hours of conversation which I passed with the gentlemen who were there." That was during his own regime. He goes on to record his enjoyment in the society of Mr. McGillivary, now in charge of the fort. Fond of intercourse with intelligent men, he seems to have been a close reader of the libraries provided by the Company. "There is much leisure," he says, "for the fur-trader at remote posts, one fifth of their time only going to the Company's business. With so much leisure, if we do not improve our understandings, the fault is our own;

1 *C.A.J.*. Vol. xxix, No. 1. page 20.

for there are few posts not tolerably well supplied with books. ... If I were deprived of these silent companions, many a gloomy hour would pass over me. Even with them, my spirit sometimes sinks. . . . These gloomy moments occur but seldom, thank God. A little reflection reconciles me to the lot which Providence has assigned me in this world." Such reflections make unusual reading in documents of the North West Company. Harmon even kept a religious fast day.

In 1815 Harmon was removed to the Fort on Fraser Lake, 45 miles away, Stewart taking his place at Fort St. James. In the meantime Stewart had been down the Columbia River and had crossed to "O-Ke-na-gun" Lake.

As neighbors, the two traders were compatible friends, having "pleasant intercourse" on religion, a subject much in the minds of New Englanders and Scotsmen a century ago. Harmon himself was strict in conduct and careful in speech. Like David Thompson he leaves the mark of his religion on his journals. His mind was more theological than Thompson's, also he confides more freely his spiritual emotion. He must have endured many a shock from the wintering partners at Fort William and from the nabobs of the trade in Montreal. When news came to Fort St. James that Alexander Henry, Dr. McTavish and five sailors were drowned at the mouth of the Columbia, he pays tribute to McTavish but is silent concerning Henry.

Reading the journals, one wonders why this man chose a life involving adventure and the solitude of the remoter outposts. He was twenty-two when he left his native Vermont and joined himself to the wild North West Company, when five years in the service, after the custom of fur traders, he took to wife without benefit of clergy, "a child of the country," as they said. That was in the Rainy River region, east. The gradual change in his attitude to this relationship is frankly revealed in the journal. And it is worth noting. On October 10, 1805, he writes: "This day a girl of fourteen offered to me, her mother of the tribe of Snaring Indians in the Rockies. After mature consideration concerning the step I ought to take, I have finally concluded to accept of her, as it is customary for gentlemen who remain in this part of the world to have a female companion with whom they can pass the time more agreeably and socially than to live a lonely single life." Such is his naive argument. The girl is reputed to be of gentle disposition, and he resolves, if they can live in harmony, to keep her as long as he remains in the service; and after that he will try to place her in the keeping "of some honest man." She would not suit the civilized world of his native state, he tells the journal. But as time went on the children born to them strengthened the bond, and none bound him so closely to her as the children that died. For the first few years, he refers to her as "my woman," and as their family increases, she is "the mother of my children."

Her name we do not know. In 1819, when preparing to return with his family to Vermont, there is this significant entry. "The mother of my children shall accompany me; and if she will be satisfied to remain in that part of the world, I design to make her regularly my wife by a formal marriage. My intentions have materially changed since the time I first took her to live with me; and my conduct in this respect is different from that generally pursued by the gentlemen of the North West Company... We have wept together over the early departure of several of our children. We have children still living." He will be true to the faithful companion of those fourteen years.

The language spoken by Harmon's family was Cree, though he sometimes talked to his wife in French. He records teaching his little daughter to read and spell English words. Had the mother been a spirited woman, like Isopel Berners, probably Harmon had employed some of his ample leisure in teaching her the English language, as Borrow taught Armenian to that noble "Anglo-Saxon road-girl" in the famous but now vanished Dingle. Harmon was not a typical "Lord of the North." There was no glamor of romance about him. He was a simple-minded New Englander.

## David Thompson

The greatest genius and man among all those discovering fur-traders who penetrated the defiles of the Rockies in the beginning of last century, was David Thompson. This trader, explorer, astronomer, cartographer, is at last coming into his own. He was, says his devoted biographer, Mr. J. B. Tyrrell, the greatest land geographer that the British race has produced. "His name will be a household word with educated men and women in America long after the fur-traders and their beaver skins are forgotten." During twenty-eight years he travelled by canoe, by saddle, or on foot, 50,000 miles through an unmapped country, surveying as he went. No matter what the hardship and danger, he never neglected his surveys; and on a second trip or a third, he surveyed again, checking his previous figures. Wherever stationed, he was continually taking astronomical and meteorological observations. He made the first map of the great plains and the mountains, a map of singular accuracy, and the basis for every map of northern and western Canada drawn since that year of 1813. When the Hudson's Bay Company got control of the west no surveys were made, we are told; and when, over fifty years later, the Government of Upper Canada wanted a map of the vast region, they were obliged to republish the map made by Thompson who received credit in an obscure note down in the corner.

Born in 1770 of English and Welsh parentage, David Thompson was a charity boy in the famous Grey Coat School, Westminster, until the age of fourteen when he was apprenticed to the Hudson's Bay Company. He had some grounding in that school, on mathematics, navigation, dialing and kindred subjects; and in the article which bound him to the Hudson's Bay Company, he is designated as a "mathematical boy." He landed at Fort Churchill in 1784, and his first travel was the next year when, fifteen years old, he was sent on foot with two Indians along the bleak coast of Hudson Bay, 160 miles, to York Factory. After four years of trading, during which he established forts on the Saskatchewan River and made friends with the Indians everywhere, he began to keep a note book and to record his meteorological observations. The next year, 1790, he made his first survey. Towards the end of his second term with the Company, there came an unprofitable season and for reasons now obvious, Thompson was ordered to discontinue the surveys. The sequel begins in the entry that went down in his journal, May 23, 1797: "This day left the service of the Hudson's Bay Company and entered that of the Company of the Merchants from Canada. May God Almighty prosper me."

Such was the man, David Thompson. During the abundant travels and toils of the next year, he discovered the headwaters of the Mississippi. Year after year, as long as he remained in the service of the North West Company, he was both diligent and keen in honest barter with the Indians, in discovery and in scientific investigation. In 1799, he married Charlotte Small, fourteen years old, "a child of the country," who bore him thirteen sons and daughters. In this also, Thompson, like his contemporary in the service, Daniel Harmon, stands apart from the fur-traders of his century.

It was in November, 1800, that Thompson first entered the Rocky Mountains, travelling from his headquarters, Rocky Mountain House on the Saskatchewan, east of the foothills. In October he had come down as far as Red Deer River, carrying goods to the value of 300 skins, and there had heard of a band of Kootenays come from across the Great Divide. A day's travel by saddle over a bad trail brought him and his party to their camp where he bartered his goods for beaver, bear, wolverine, fisher. He learned something from the Kootenays about the geography of their country and invited several to return with him to Rocky Mountain House, where he fitted out two of his own men to winter with the Indians, west of the Great Divide. In the middle of

November, Thompson hit the trail once more, as we say in the west, turning toward Bow River which he reached near the site of Calgary. Turning west, he camped by a spring close to the Bow, near the mouth of Ghost River, and then set off into the mountains by the Gap. The last day, he left the horses and travelled on foot, following a trail on its north side to the "steep cliffs" near Exshaw. Climbing one of the hills he obtained striking views east and west, "a sea of hills and peaks." At this place one of his men, Duncan McGillivray, whose name is associated with the early trails of the fur-traders, killed and preserved three mountain sheep. These three were the first obtained by naturalists. On November 28, Thompson was back in his camp down the Bow, and on December 3, he was again at Rocky Mountain House. There is no proof that Thompson had any connection with Old Bow Fort whose site can still be determined by the name Bow Fort Creek, which flows between Broken Leg Lake and Bow River. He may have left some men in the vicinity to start a trading camp, but this is very doubtful. Old Bow Fort was built by the Hudson's Bay Company, probably in 1802.

In June, 1801, with eight white men and an Indian guide, Thompson went into the mountains by the Saskatchewan, hoping to cross the watershed and descend on the other side with horses. But the river was in spate from melting snows, and the project was abandoned for the time. The next year, he turned north and entered the hills by the Peace River, following Mackenzie's route and establishing himself at the post built for the explorer near the mouth of the Peace's great tributary, where Mackenzie wintered in 1792-3. Here Thompson traded, hunted, kept his meteorological records; made an expedition by dog team to Lesser Slave Lake in 1803, and in 1804 travelled on foot up the Peace River to the most westerly post, at the time, of the North West Company. In the autumn of the same year he was east, spending the winter on the Churchill River which empties into Hudson Bay. This sojourn so far east of the mountains is here noted because of a happy incident in the cruel and sometimes bloody rivalry of the two great and famous fur companies, and because it shows what like was this trader and explorer. At Nelson House, the Hudson's Bay Company fort on the Churchill, he found an old friend and schoolmate in charge as governor of the district. Going down stream a little distance, Thompson built a post for his own company and there spent the winter. The preceding summer Governor George Charles has imprisoned a North West Company man for stealing furs from the Hudson's Bay Company; but neither this fact nor the hard conditions of the fur trade broke off their friendly relations. While keeping strictly to business in the respective interests of their employers, doing their lawful utmost to outwit each other in all that, they kept up the amenities of friendship even to the exchanging of books; and when Thompson left in the spring of 1805, everything not necessary for his journey was left in the care of the Hudson's Bay Company officer at Nelson House.

It was not until early May, 1807, that Thompson was able to make a second attempt to cross the Great Divide. With his wife and little family, he started up the Saskatchewan on horses, sending supplies by canoe in charge of one, Finan Macdonald, whose name appears often in the rare annals of the Columbia River during nearly a score of years. By June 3, they reached wide grassy plains called Kootenay Plains then and now. This place, well into the mountains, was a camping ground for the Kootenay Indians west who crossed the Divide to trade with tribes east. It is now pasture land for outfitters' horses.

Thompson reached the Forks of the Saskatchewan in three days and went forward by packtrain, arriving at the height of land at one o'clock the same day. This was the pass named for Joseph Howse, the Hudson's Bay Company trader who crossed it for the first time two years later on a spying expedition for his Company. Where was Thompson going west of the Divide and what

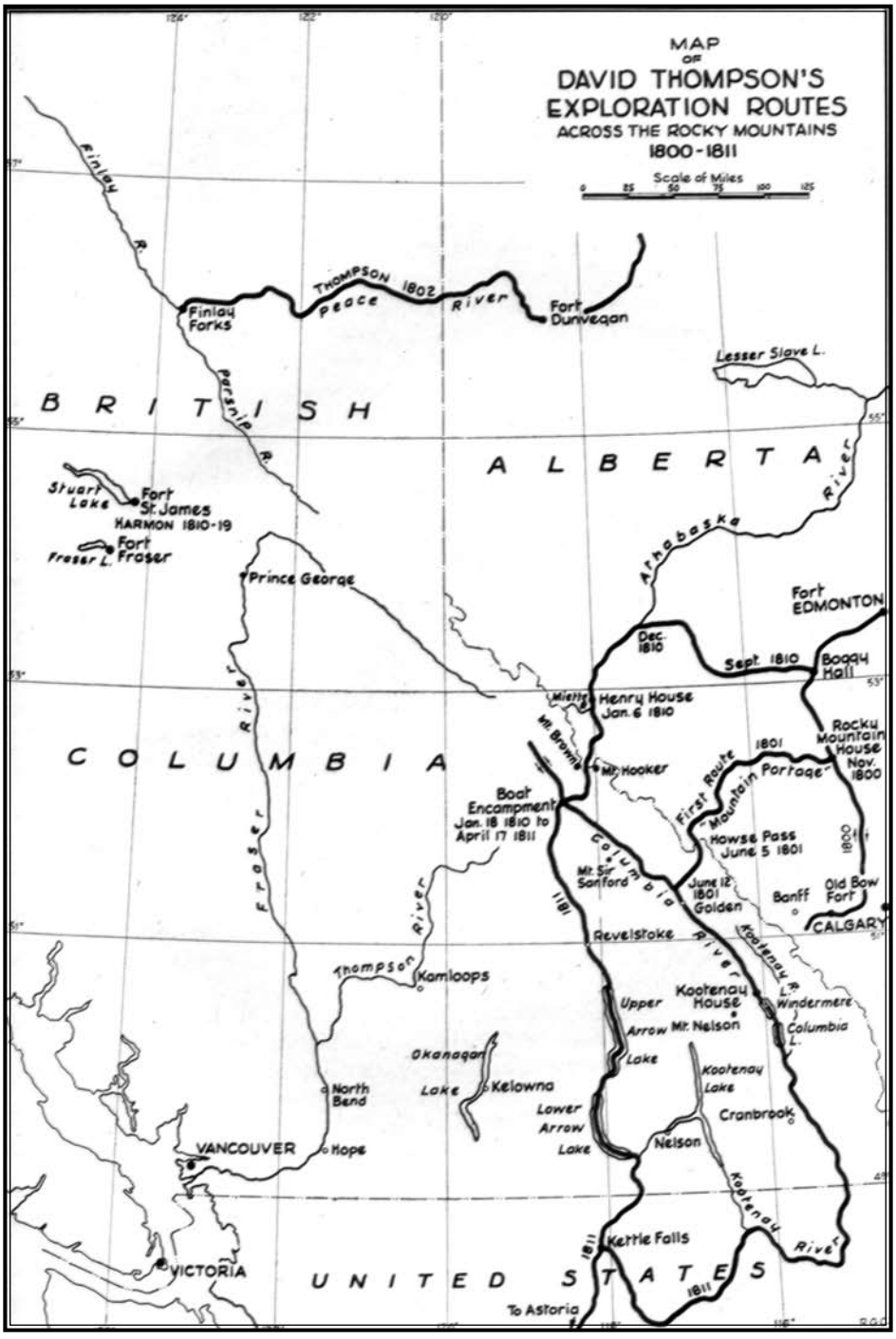
was he doing? Reporting to his officials, Howse was sent back again in 1810, well-equipped, and he followed his rival's route all the way to the Upper Columbia and as far as Montana.

It was on June 25, 1807, that Thompson and his small cavalcade crossed Howse Pass and descended the steep valley of the Blaeberry to its junction with the Columbia which he supposed to be the Kootenay River. Hence the name of his fort. The descent of this defile was troublesome, involving three days' hard travel. As a matter of fact, he was not first foot on the pass, for a servant of his Company, named Jaco Finlay, had crossed it the previous year and had descended as far as the mouth of the Blaeberry. He had built a canoe and left it in what he thought was a safe place. But Thompson found it unfit for use and was obliged to camp long enough to build canoes and pack the stuff. Travelling by the Canadian Pacific Railway, you may see the spot a few miles west of Moberly Station.

On July 12, the travellers were ready for the voyage up the Columbia, and six days later they reached Lake Windermere. Thompson began at once to build on the south end of this charming lake, but the place did not suit, and he moved down the river northward about one mile and built the historic Kootenay House on the west side of the river. It is marked on his map as north of Toby Creek where its site has been found within recent years. The chimney bottoms remain to this day and can be found on Lot 7, Division B, Wilmer district. It was a thoroughly built fort, the first trading post on the Upper Columbia, as his journal describes: "And then we builded Log Houses, strongly stockaded it on three sides, the other side resting on the steep bank of the River: the Logs of the House and the Stockades, Bastions, etc., were of a peculiar kind of heavy resinous Fir, of a rough black bark.... Stockades and Logs of buildings ball proof." Kootenay House was known to the Company's officers east of the mountains as "Old Fort Kootenae," to distinguish it from the forts on the Kootenay River south of the 49th parallel.

Thompson made his usual observations, traded with Indians, and hunted. He describes the game: red deer, antelope, a few mountain sheep, and goats with "long, silky hair, difficult to hunt for their feeding on the high parts of hills and kicking down stones." They seem to have killed insufficient game that autumn, for we read of them eating several horses. The big game is still in the Upper Columbia country, but it has retired into the hills and mountain-fastnesses on either side of the valley. In 1807, multitudes of wild horses were roaming the mountainsides. Thompson describes them as very prolific and very fat with fine coats of hair, descendants of tame horses which had been lost. For two summers he hunted them, and several were tamed.

The journal gives a realistic account of the fort being besieged by a troublesome band of Piegans, visitors to that valley from the east. "I had six men, ten guns well loaded, the House was perforated with large augur holes as well as the Bastions. Thus they (the Indians) remained for three weeks without daring to attack us." On both sides were signs and strategy of war. Three hundred Piegan warriors mobilized, having crossed the mountains by a defile known to their tribe. They sent an embassy of two to spy out the strength of the Fort. Guessing that the war party had been augmented, Thompson took pains to show the delegates the interior of the fort. Happily two Kootenay Indians arrived from the south the next morning. "They glared on the Piegans like Tigers. I told them to sit and smoke." And so by presents of tobacco and pipes to each party and diplomatic conversation, the Piegan ambassadors took back a tale that precluded any further menace. Thompson learned afterwards of what happened. The ambassadors delivered the presents and the message to the great camp of warriors and then sat down silent. The war chief cried: "What can we do with this man ? Our women cannot mend a pair of moccasins but he sees them," (alluding to astronomical observations). He laid the pipe and stem and tobacco solemnly on the ground: "If we


MAP
OF
DAVID THOMPSON'S
EXPLORATION ROUTES
ACROSS THE ROCKY MOUNTAINS
1800-1811
Scale of Miles
0 25 50 75 100 125
Finlay R.
Finlay Forks
THOMPSON 1807
peace River
Fort Dunvegan
Lesser Slave L.
B R I T I S H
A L B E R T A
Parsnip R.
Stuart Lake
Fort St. James
HARMON 1810-19
Fraser L.
Fort Fraser
Prince George
Athabaska River
Fort EDMONTON
Dec. 1810
Sept. 1810
Boggy Hall
Fraser River
Henry House Jan. 6 1810
Mt. Brown
Mt. Hooker
Rocky Mountain House Nov. 1800
1801
First Route Mountain Portage
C O L U M B I A
Boat Encampment Jan. 18 1810 to April 17 1811
Howse Pass June 5 1801
1800
Mt. Sir Sanford
Columbia
1181
June 12 1801 Golden
Banff
Old Bow Fort
CALGARY
Revelstoke
Kootenay River
Thompson River
Kamloops
Upper Arrow Lake
Kootenay House
Mt. Nelson
L. Windermere
Columbia L.
Okanagan Lake
Kelowna
North Bend
Kootenay Lake
Lower Arrow Lake
Cranbrook
Nelson
VANCOUVER
Hope
Kootenay River
1811
Kettle Falls
VICTORIA
U N I T E D S T A T E S
1811
To Astoria

proceed to war, none of these can be accepted." Another chief eyed the tobacco wistfully, and, like a politician, said: "You all know me, who I am and what I am. I have attacked tents, my knife could cut through them and our enemies had no defence. I am ready to do so again, but to fight against Logs of Wood that a Ball cannot go through, and with People we cannot see, and with whom we are at peace, is what I am opposed to. I go no further." He then cut the tobacco, filled the red pipe, fitted the stem, and they all smoked and accepted the present.

Winter came on with deep snow and Kootenay House was safe, as the diary records: "Although, through the mercy of Providence, we had escaped, yet I saw the danger of my situation. I, therefore, took precautions to quit the place in the early part of the spring." He pays tribute to the oratory of Indians, east and west. They spoke in the simplest language, repeating some sentences two or three times to impress the hearers; but he never once heard "a florid, bombastic speech from an Indian."

It was a busy winter with trading, hunting, meteorological and astronomical observations, and surveying. Thompson named Mt. Nelson and measured it as 7,223 feet above the lake, which would be equal to 9,900 feet above sea. Dawson's map of 1885 gave it as 10,000 feet. With an Indian guide, Thompson and his men paddled upstream to the large lake, the source of the Columbia River. That he loved this lake above other lakes we may guess from an entry in his journal: "I never could pass this singular place without admiring its situation. ... A fine lake of about 11 square miles from which issues its wild rapid stream, yet navigable to the sea." The next day he reached the portage between the lake and the Kootenay River, that stream which by a geological freak, runs south for miles parallel to the Upper Columbia running north. He named the portage and the river, McGillivray, for one of the chief partners in Montreal, William McGillivray. Thence he descended the Kootenay, making careful survey with a compass checked by latitudes. After establishing trade with the Flatbow and Kootenay Indians as far south as Idaho he turned north again. On this trip his hunters killed a mountain lion described in the journal as good eating, its flesh white and like that of the antelope. "Liver rich, two men ate it and were ill. Indians said this animal would lie in covert, spring upon a deer's back, fasten its claws and directly cut the back sinews of the neck." The journal here describes an Indian famine bread first seen on this expedition and tasted by the party. It was made of the black bearded moss which hangs on the evergreen trees. Washed, beaten fine and baked, it became a cake of black bread, slightly bitter, containing enough nourishment to keep one alive.

On June 5, Thompson was back at Kootenay House where he picked up his family and paddled down the Columbia to the Blaeberry, climbed that defile, crossed Howse Pass to the headwaters of the Saskatchewan and reached the Kootenay Plains on June 17. He carried all the pelts obtained through the year and went with his brigade of fur-laden canoes straight across the plains to Rainy River House, a post west of Fort William. By October 31, he was again at the mouth of the Blaeberry on the Columbia, and ten days later was at Kootenay House.

Touching this inland voyage in swift canoes and return, an entry in the journal shows Thompson to have been for temperance on moral and economic grounds, long before Temperance was born. At Rainy River, his canoes were loaded with goods for trade, each carrying ninety pounds' weight. "I was obliged to take two kegs of alcohol, overruled by partners Donald McTavish and John McDonald of Garth, for I had made it a law to myself that no alcohol should pass the mountains in my company, and thus be clear of the sad sight of drunkenness and its many evils; but these gentlemen insisted upon alcohol being the most profitable article for the Indian trade. In this I knew they had miscalculated; accordingly when we came to the defiles of the mountains I placed the two kegs on a vicious horse; and by noon the kegs were empty, the horse rubbing his

load against the rocks to get rid of it. I wrote to my partners what I had done; and that I would do the same to every keg of alcohol, and for the next six years I had charge of the Fur Trade on the west side of the mountains, no further attempt was made to introduce spirituous liquors."

The winter of 1808-1809 was spent at Kootenay House trading with the Indians. An ice-house was improvised to preserve big game killed by the hunter, Jaco Finlay. Thompson named it a "Glacier of Frozen Meat." A cellar twelve feet square was dug and its bottom and sides were lined with blocks of ice; 160 thighs and shoulders of red deer and 47 thighs of antelope were placed within, a layer of meat to a layer of ice, until the cellar was filled. This was the primitive method of cold storage employed for the buffalo meat, on the plains around Fort Edmonton in the middle of last century.

In the spring of 1809, Thompson went down the Columbia, up the Blaeberry and over Howse Pass — he names this route the Mountain Portage — to Kootenay Plains where he had laid up canoes in the autumn. Three days were spent mending canoes and drying furs. He then went with his brigade as far as Fort Edmonton — and there sent the furs east, himself returning to Kootenay House on August 20; and for a year his itinerary is a very active one, between the Kootenay River as far south as Idaho and Rainy Lake on the far east.

In September, 1810, he is on his way to ascend the Upper Saskatchewan, when he finds himself intercepted by Piegan warriors who send him word that no more goods shall pass across the mountains to the Kootenays. Especially do they object to their white friends supplying knives, guns, bullets and powder to their old enemies. Thompson's advance party brings him a message that he must quit carrying ammunition to the Kootenays or they will kill him and all his men.

Now, the Piegans were Plains Indians, and Thompson, who knew them thoroughly, decided to outwit the band by finding a pass to the north. He collected men, horses and supplies at a post named Boggy Hall on the Saskatchewan about 60 miles below Rocky Mountain House, started through the woods on an old trail used by the Assiniboine tribe, and reached Athabaska River at the mouth of a brook a few miles below the place where the railway first touches it. But it was the end of December before he started from a camp on the Athabaska, with a dog-train and four pack-horses. On January 6, he left the horses near the mouth of Miette River where Yellowhead Pass turns off to the west, and followed up the Athabaska River (rather its great tributary, the Whirlpool) to its source, discovering the Athabaska Pass which became one of the famous high-ways of the Rockies for the fur trade. The pass lies between Mts. Brown and Hooker, named by David Douglas, the botanist, some years later and given by him the absurd altitudes of 17,000 and 19,000 odd feet above sea. Today explorers can identify Mt. Hooker, and perhaps Mt. Brown; but there are no peaks of such figures near Athabaska Pass. When Thompson crossed, the little lake, afterwards named "The Committee's Punch Bowl," whose appellation is still a mystery, would be covered with snow. It was a terrible journey and the privations were extreme, at one time to the point of starvation. But there was no turning back.

Crossing the pass, Thompson descended Wood River to its junction with the Columbia's great northern bend at the mouth of Canoe River, reaching its frozen waters on the 18th of January. He at once started up the Columbia on sleds but made only twelve miles when his men mutinied or struck, as we say today. Returning, he spent the winter of 1811 on the northern or "Big Bend" of the great river at the place which is named Boat Encampment. Here was constructed an ingenious and stronger canoe, "clinker-built" of cedar boards, sewed after the fashion of birch bark as there were no nails to fasten them. We may well do homage to the craftsmanship which hewed the boards out of those cedar trees and sewed them together.

It has often been stated, says Mr. Tyrrell, that Thompson, in obedience to the North West Company, was now hurrying to the mouth of the Columbia with the object of forestalling the Pacific Fur Company in building a trading post. The journal contains no hint of it. He knew that the Pacific Company was making elaborate preparations to establish trading posts on the lower reaches of the Columbia, but he knew also that he was able to hold his own trade on the river and on its tributaries. He had extended that trade on the west side of the mountains, and he was searching for and surveying the best routes for its prosecution. "He travelled deliberately and carefully with that object in view always."

On April 17, Thompson set off up this unknown part of the river, paddling past Blaeberry Creek, where hitherto his "mountain portage" east had begun; past his Kootenay House where the noted Nor'Wester, John Macdonald of Garth, was in charge; on through the two lakes of his discovery, now Windermere and Columbia, across McGillivray's Portage, now Canal Flats; and thence, down the Kootenay to his various trading places below the 49th parallel, travelling by canoe or saddle. He returned across country to the Columbia at Kettle Falls, where he built a canoe and set forth, this time down the river to Astoria near its mouth, the fort newly built by the Pacific Fur Company and afterwards purchased by his Nor'Westers.

At Astoria, which he reached on July 15, he found an old partner, Duncan McDougall, in charge of the fort, visited with him a few days, and was off up the river to his own trading posts in various parts of the country, travelling mainly on horseback until autumn, when he sought the Columbia once more at Kettle Falls. Here he again built a canoe and ascended that long and dangerous stretch of the river unknown to him, through the Arrow Lakes (on Upper Arrow Lake camping near Halcyon Hot Springs), past the site of Revelstoke, past the "Dalles des Morts" whose eighteen miles or more of treacherous rapids have wrecked and destroyed so many boatmen, to the Big Bend, having thus completed a survey of the great river from source to mouth, 1,400 miles.

From that day to this, we are told by Thompson's biographer, parts of this great and mighty river have never been surveyed again, so that "Thompson's surveys still appear on every map of the Columbia River published." And his memory is forever associated with every curve and rapid and lake of its long winding length from its source in the beautiful lake to its entrance in the Pacific Ocean, encircling the Selkirk Mountains as it flows north and turns again south. He it was who, all unknowing, made the first circuit of the Selkirk Range: White, Sir Sandford and the icy giants north within the Big Bend, and all the host of snowy peaks south just over the rich green summits that watch the upper reaches of the river.

Here is an epic inland voyage whose simple records were buried for a century. It is a brave and thrilling story that the note books tell of the voyage up the waterway from Kettle Falls to the Big Bend, but this sketch may not include it.

Thompson was nearing the end of his labors for the North West Company. Reaching Boat Encampment and finding no brigade from the east as expected, he fastened a letter to a tree and started with seven men and a light canoe up the Canoe River which became so shallow as they ascended that propelling with poles was necessary. This reduced progress to the rate of a mile and a half an hour. However, moose and beaver were so abundant that the hunters named the valley, "The Sack of Provisions." In three and a half days they had made only 48 miles and were sitting around the campfire not knowing whether to proceed or return, "when two men in a small canoe, thank kind Providence, came up to us." The day after Thompson had hung his letter on the tree a packtrain arrived from the east under William Henry, a cousin of Thompson's famous contemporary, Alexander Henry.

Thompson returned to the Big Bend, despatched the stuff to Kettle Falls and crossed Athabaska Pass once more, resting at Henry House, "below the mouth of the Miette River at the head of which is the Yellowhead Pass." Thus, the journal. Freight was waiting there and he hurried westward again and down the Columbia, visiting every fort of his building in that country. But he never again ascended the river to visit his first fort, Kootenay House. In the spring of 1812 he left Kettle Falls with a brigade of six laden canoes bound for Fort William on Lake Superior. He reached Boat Encampment on May 5, and the next day set off on foot, arriving at the pass in three days. His last traverse was in springtime. His first had been in the biting cold of January, his men hungry and uncertain, and himself not knowing whither he went. He had then been profoundly impressed by the glacier "of a fine green color. My opinion was that the whole was not solid ice, but formed on rocks from rills of water frozen in their courses. My men were not at their ease, yet when night came, they admired the brilliancy of the stars and one of them said he thought he could touch them with his hand."

Leaving the mountains forever, Thompson travelled eastward by the northern waterways to Cumberland House and thence to Fort William and Montreal. So ended twenty-eight years of trading, surveying and making observations in the vast West. It was characteristic of this man that he immediately enlisted in the War of 1812. Simon Fraser, discoverer of the Fraser River, was a fellow officer in his company. The years 1813-14 were spent in preparing his great map for the North West Company, drawn on a scale of fifteen miles to the inch, the same proportion as the International Map of the World. The nabobs of the Company did not hang it in Beaver Club Hall, Montreal, but in their Board Room at Fort William where nobody but traders ever saw it. It is now preserved in the archives of Ontario.

Thompson never entered into the hard-drinking, social life of the Beaver Club. And yet no "wintering partner" of them all could have better entertained that gay and careless company than this noble adventurer of the far West, this short, compactly built man with the deep-furrowed, friendly, weathered face and long black hair cut square across his forehead above the eyebrows; who had such true and thrilling tales to tell. An American naturalist, who served with him later on the commission which surveyed the Eastern Boundary line, has told how Thompson would recreate the wilderness and people it with his Indians, or climb again the mountain denies in a snowstorm. All so clear and palpable that you could shut your eyes and hear the crack of the rifle or feel the snow in your face. Yet he was not one to talk much of his own exploits and achievements, nor one to press his deserts which were very great. As his later years have no connection with the Canadian mountains, we take leave of him when he retires from the service of the famous "Lords of the North," merely making mention of his death at Longueuil, near Montreal, on February 10,1857, at the great age of eighty-seven. His wife outlived him but three months. Both lie buried in Mount Royal cemetery, where no tombstone marks their resting place.

# FIRST TRAVERSE OF THE BENNINGTON ICEFIELD

BY REX GIBSON

In the 1931 Journal are two beautiful photographs by Ansel Adams entitled "Para Pass and Adjacent Peaks" and "The Fraser Group and Bennington Glacier" and on them in dotted lines is a route suggested by Cyril G. Wates for turning the difficult northwest approach to Para Pass. In the accompanying article Wates says, "A broad, snow-covered ledge should then give access to the pass. It is hoped that this route . . . may be explored in the near future." Fourteen years were to elapse before the opportunity to do so presented itself, and it was not until the second week of this year's camp in the Eremite that a portion at least of this route was worked out.

On July 26 a party consisting of Bruce Cork and Bill Latady, both members of the Harvard University Mountaineering Club, and the writer left camp at 7.40 a.m. and reached the tongue of the Para Glacier at 9.00 a.m. We donned crampons for this part of the climb as, in common with most receding glaciers, this tongue is becoming progressively steeper. Reaching the top of Para Pass we stopped there for lunch (11.20-12.00 noon) before setting out on the ledge. When we topped the crest of the pass and got our first glimpse of the ledge, Bruce exclaimed, "Is that the ledge you propose to traverse ?" I must admit that it looks a little grim as it has a 600-foot "AP" cliff above it and a much higher and equally steep cliff below. The ledge resembles a narrow white ribbon laid across these cliffs. I hastened to reassure him that if it would hold snow it would hold us, but I must admit that I had a few qualms as in one place it disappeared round a corner into a steep gully and it was not possible to judge from where we stood whether it would "go." Actually it took just two hours of careful climbing to make this traverse and it proved to be an interesting pitch throughout with the added thrill of plenty of exposure. Soon after emerging into the névé basin we found a convenient outcrop of dry sunbaked rocks and stopped for a rest and another lunch (2.30-3.15 p.m.).

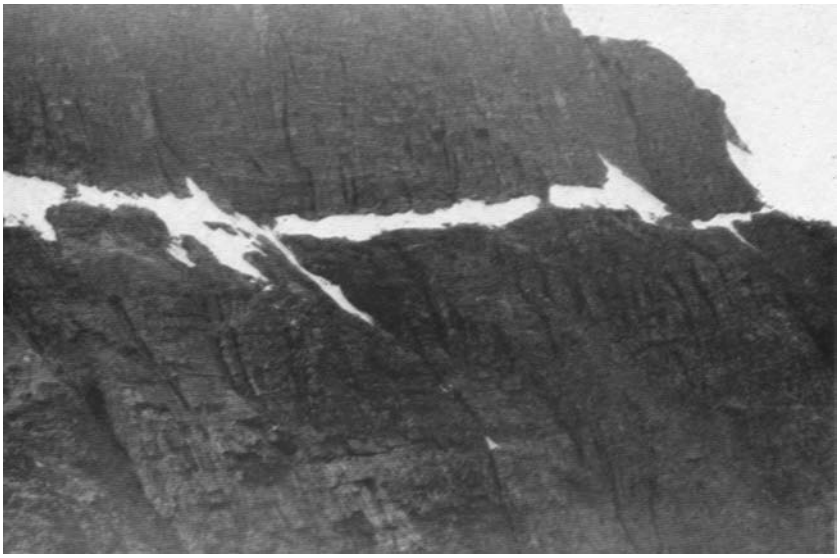
The view from this spot was magnificent and conditions were perfect for photography. All three of us took kodachromes and black and white shots right and left. At our feet lay a tremendously active and very broken icefall with huge blocks of névé piled in disordered heaps. Many of these blocks showed a whole series of black dirt bands indicative of each successive season's snowfall. To our right rose the towering black cliffs of Simon Peak's east wall, its snow slopes seamed by a great number of deep avalanche troughs. On the ridge of the col between Simon and McDonell we could see some of the climbers who were making the traverse that day; we exchanged shouts with them. McDonell showed up as a very shapely peak at the head of the cirque, its north face draped in dazzling white. This face has a fine hanging glacier below its west ridge and a grand display of bulging cornices on the other flank, with a formidable bergschrund beneath the peak itself. Bennington, the steepest of the group, held little snow, and rose from the snowfield in front of us as a perfect black pyramid. Closing the cirque on our left was the long flat-topped ridge of Parapet, which I had climbed two days before.

The traverse of the upper snowfield, seamed as it was with giant crevasses, proved to be most interesting, and in one place we had to cross a narrow and most insecure snow-bridge across a very deep straight-walled crevasse. Bill did an excellent job of leading through the névé and he also did the lion's share of the hard work of step kicking. We had to cross a small bergschrund at the base of the west ridge of Bennington and found ourselves at this point on a very steep snow slope where there was some danger of it sliding, especially at that late hour of the afternoon. Even

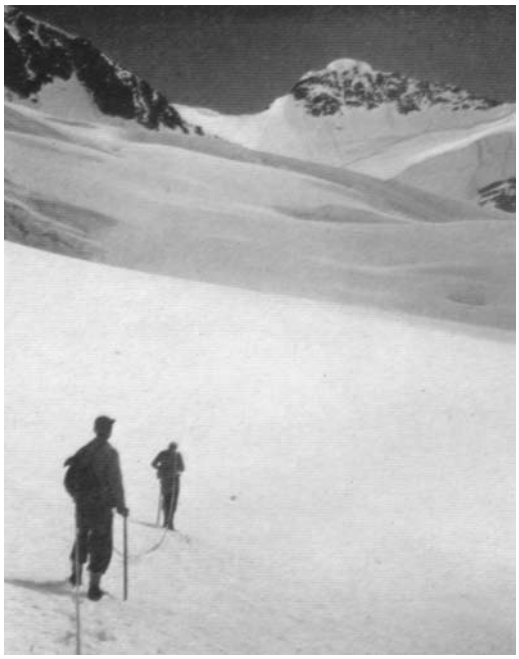
**The Fraser Group From Drawbridge Pass.** *Photo J.A. Weiss*

Peaks from L. to R., Parapet, Bennington, McDonnell and Simon.

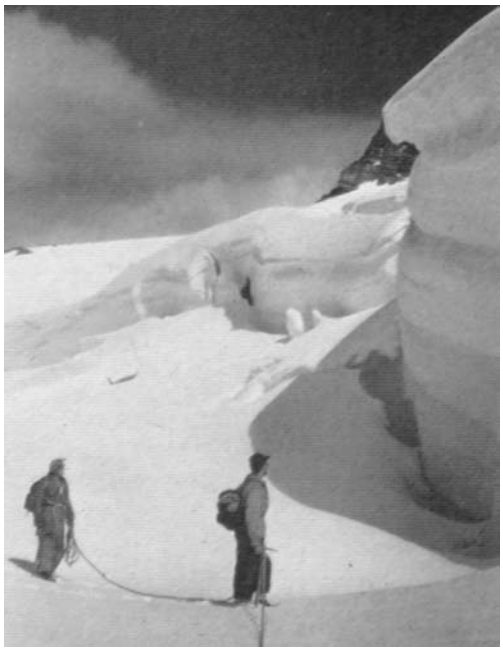
**Ledge On Parapet Peak, Looking South.**
*Rex Gibson and W. R. Latady*



**Ledge On Parapet Peak, The Key To The Climb.**
*Rex Gibson and W. R. Latady*



**Approaching The Bennington – McDonnell Col.**
*Rex Gibson*



**Seracs On The Neve Of The Bennington Glacier.**
*Rex Gibson*

from here it is quite a long way to the col between McDonell and Bennington and it was a relief to step out on to rocks again on the pass at 6.35 p.m. We were then only some 600 feet below the summit of Bennington, and just below the final summit mass, but as it was getting late and we still had a long descent to make, we decided to call it a day and not go on to the peak itself. The descent of Bennington's "backstairs" by the southwest ridge is an unpleasant business as the slabs all slope down and out, and slopes which are usually snow-covered were bare and icy. We used crampons again here for part of the descent. However we got off the Fraser Glacier in daylight (9.00 p.m.) and pushing straight through without stopping at the Memorial Hut were back in camp by 10.00 p.m., just as it got really dark.

As to whether the rest of Wates' proposed route will go, it is hard to express an opinion. By crossing the névé and getting a close-up view of the true left bank of the main icefall right against the steep cliffs of Simon and Casemate it might be possible to work out a route, but one would have to find a safe line through some pretty wild looking séracs. Anyone wishing to make this trip had better not wait another fourteen years before doing so, for these icefalls have a nasty habit of becoming more difficult as they get older, and their present state is much wilder than that shown in Ansel Adams' pictures which must have been taken some fifteen years ago.

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# EREMITE VALLEY —1945

BY FRANK E. GAEBELEIN

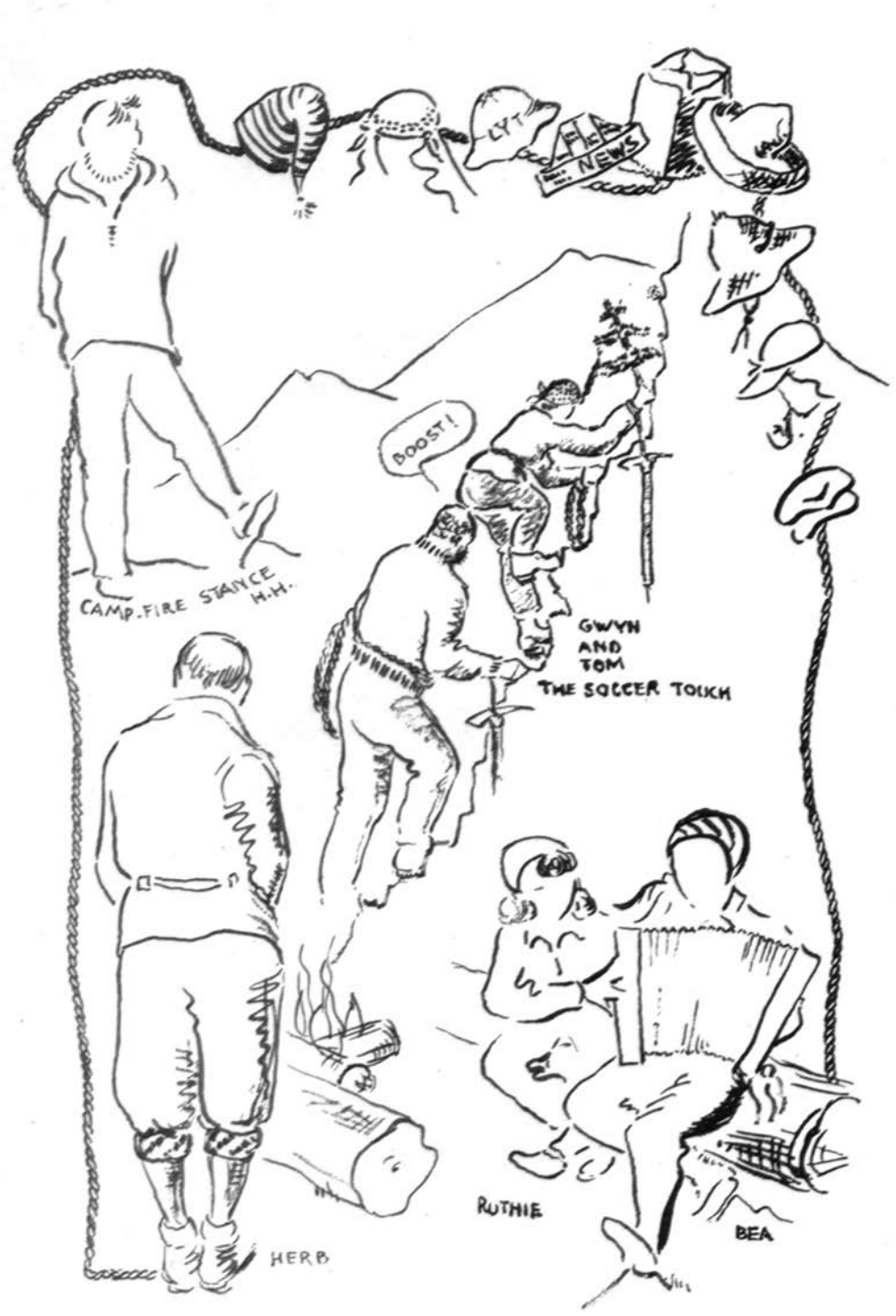
"I'm going to live on this all year." Such was the comment of one of the Eastern members of the club as, toward the close of a holiday, he looked long at a great panorama of peaks, glaciers, and valleys from one of the higher summits of the Rockies. Every climber will understand what he meant, because every true lover of the great hills knows that not least among the rewards of climbing is a memory stored with pictures which those who remain in the valleys never see. Surely one of the lasting by-products of an active love for the mountains is the enrichment of what Augustine called "the spacious palaces" of memory.

In reporting the Eremite Valley Camp there comes first to mind the long stretch of station platform at Jasper as the train rolled in the afternoon of Saturday, July 13. Here Eric Brooks' cordial welcome was coupled with an offhand caution to be ready for the trail early, because of the dozen or so miles to be walked. For the newcomer to Jasper, the skyline was dominated by the snowy bulk of Mt. Edith Cavell, though the eye also lingered over jagged Kerkeslin and the dry rocks of Pyramid Mountain. That night the housing situation in Jasper was acute, as some Vancouver members who slept in a basement storeroom of the Athabasca Hotel learned.

A rather chilly and cloudy morning saw us off in open cars to the beginning of the trail at Lookout Point, close to the foot of towering Throne Mountain, with its long vista up the valley of Astoria River to distant, glacier-hung peaks. Thoughts of the twelve-mile trail stimulated inquiries at the corral as to riding in, but the demand for packhorses resulted in nearly everyone making the journey on foot. The walk to camp with its innocent, initial stretches followed by miles of mosquito-infested mire through which we slogged for a fair part of a grey day, finally to end by hopping from hummock to hummock in the meadows of Eremite Creek, remains a permanent memory, not entirely of an aesthetic nature. But we were grateful for the humane pace set by Dr. I. A. Richards.

Our particular group included too a gentleman famed for his mileage accumulated last summer in daily round-trips from Paradise Valley to Deer Lodge for ice cream. His umbrella, the only one in camp, was opened and shut again and again during the dozen miles as showers came and went, being wrapped in paper when closed, because, as its owner said, it didn't do to be seen carrying an umbrella in the mountains. A mile or so from camp, Mrs. Brooks met us and showed us how to work the minor miracle of crossing the meadows below camp without further wetting of shoes and socks already soaked. Then, on arrival at camp, she and Eric, like Bunyan's shepherds of the Delectable Mountains, "had us to our tents" that we might "solace ourselves with the good of these Delectable Mountains."

The tents were pitched far up in Eremite Valley. On one side the sheer rock wall of Outpost Peak with its goat-inhabited ledges was separated from camp only by the swift grey waters of Eremite Creek. On the other side the slopes of Thunderbolt rose more gently, yet still steeply, to a rocky summit. Ahead, rising boldly from the glaciers, were the rounded, snow-crowned summit of Angle Peak, Mt. Alcove with its precariously poised cornice, pointed Anchorite, and then Eremite, impressive with gleaming snowfields sweeping up to the sharp summit fronting Mt. Erebus. Finally, over the shoulder of Outpost, the sharp spires of Paragon and Oubliette banded by snow-striped ledges were reminders of the nearness of the other Ramparts like Dungeon and Redoubt. Whoever named these mountains must have had a fling at reading Gothic romances!

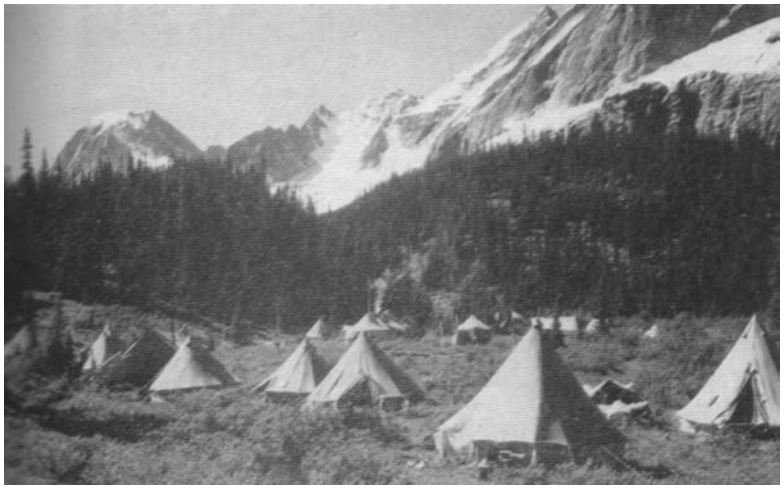



**Sketches At Eremite Valley Camp.**
*Drawn By M. Lewis*

**G. Hampson (Navy), D. Arbuckle (Air Force), E. R. Gibson (Army)**

**Dr. I.B. Hudson, N.B. Sanson**

**B.B. Gilman, N. Fraser, S. Bowes, F. Parkes**



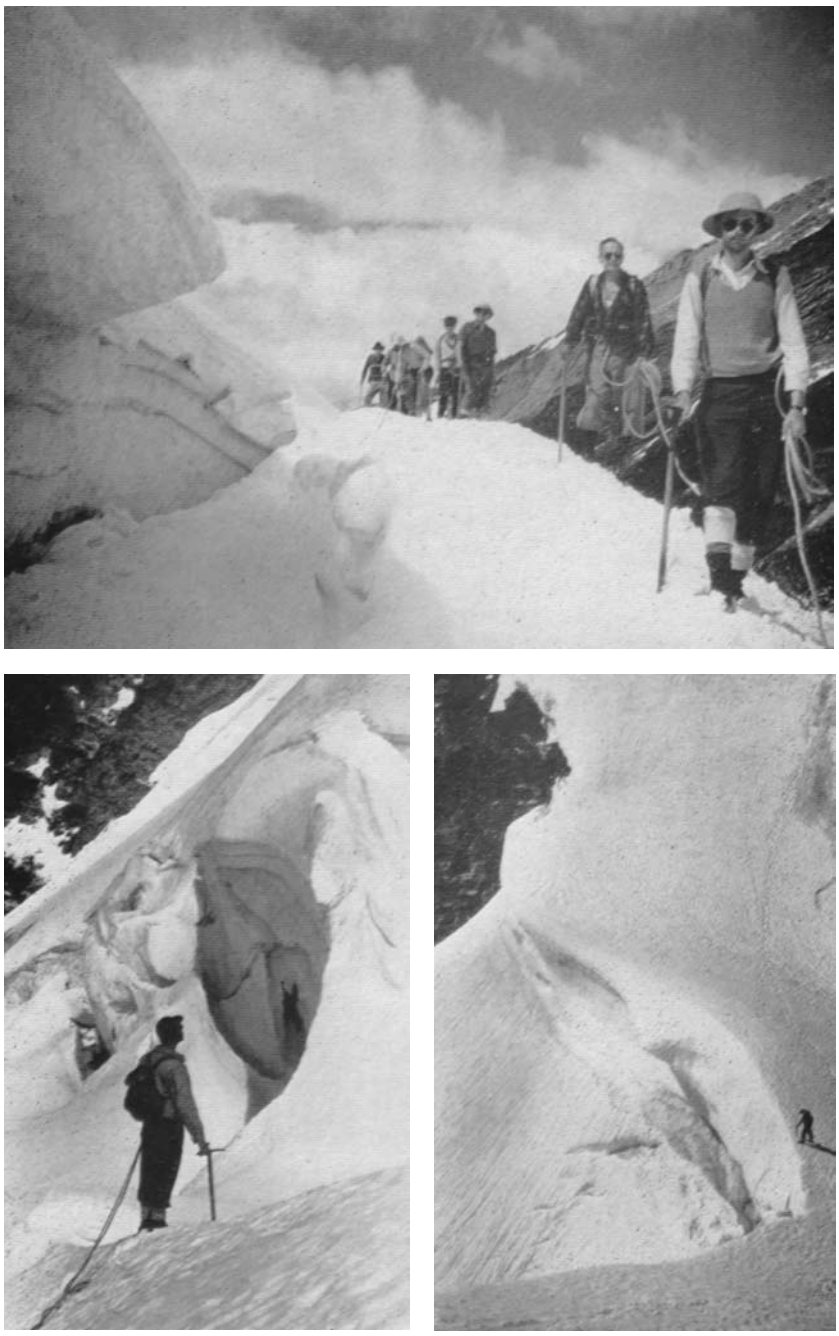
**In Eremite Valley Camp**

**O. Kuettner, A.W. Kramer, R.J. Cuthbertson, H.S. Kingman**

**Dr. F. Gaebelin**

**Mrs. W.A.D. Munday**

**The Montreal Section**



Upper

**Bergschrund Below Angle-Alcove. Col.** *Rex Gibson And W. R. Latady*

Left

**Bruce Cork On The Bennington Glacier.** *Rex Gibson And W. R. Latady*

Right

**Cornice At The Summit Of Para Pass.** *Rex Gibson And W. R. Latady*

A group from the east, headed by John Brett and Henry Hall, had been in camp about a week, and had done valuable work in reconnaissance of routes. To them is due a definite share of credit for the amount of climbing accomplished. Doubtless, the way up the cliffs to Eremite Glacier will long continue to be known as "the John Brett passage." It was used by all parties ascending Eremite, Memorial, and Outpost directly from camp, and even contained the refinement of a narrow cleft between the rocks, by struggling through which ladies on the climbs chose to prove their slimness. Appreciation is also due Major Rex Gibson for his very practical talk at one of the first camp-fires in which he shared his extensive knowledge of the surrounding peaks and explained routes so clearly as to help more than one camper plan a climbing schedule.

The weather was irregular, but with the exception of one or two especially bad days, climbing continued without interruption. And, after all, these mountains are such as to make inactivity difficult. They combine with moderate height an extraordinary variety of mountain terrain. Here are glaciers and icefalls for crampon practice, steep snow-fields on which to learn balance and glissading, bergschrunds to be crossed, cornices to cut through or pass by gingerly, and rocks of all grades of difficulty to be climbed. Accessible by easy walks are Arrowhead Lake, Chrome and Amethyst Lakes, also Outpost Lake, memorable through F. H. Brigden's beautiful water-color. While snow avalanches did not thunder as off the precipices of Hungabee and Lefroy in Paradise Valley, there was one noon when many in camp rushed from lunch to watch a rockslide which, beginning just below the summit of Outpost, roared down the gullies and left the mountain smoking with dust like a volcano.

That Eremite Valley is well populated by wild life was apparent to observant campers. On one of the first evenings in camp we looked long at goats on the ledges of Outpost. A number of hikers found on the side of Mt. Clitheroe the remains of a caribou apparently killed by some predator. Moose were plentiful, and although bears kept away from camp, there were rumors of a grizzly on the upper slopes of Thunderbolt. Several members came back from a day at Amethyst Lakes, bringing a string of over-sized trout.

Campfire programs were less numerous than in other years because of the wet weather. However, there were several enjoyable evenings. Despite showers the customary Sunday Service was well attended. The same evening the Annual Meeting convened round the fire. It was good to have with us our new Honorary President, H. E. Sampson, K.C., of Regina, who responded happily and wittily to the announcement of his election. Another evening he and Henry Kingman conducted a quiz program devoted to mountain lore. Still another campfire was notable for a fascinating talk on mountain storms by Dr. I. A. Richards, and there were also Ukrainian songs by the waitresses. During the second week, we had a visit from John Case, President of the American Alpine Club, who enjoyed the ascent of Mt. Alcove during his few days in camp. Mr. Case brought a word of greeting one evening. It is encouraging to note, in this day of closer co-operation between English-speaking peoples, that the A. A. C. was represented in camp by a good-sized group, and that quite a number of campers were members of both the American and Canadian Clubs.

Not all the memories of a climbing holiday are of mountains, however. The abundance of good food provided by Ken Jones and his helpers, enjoyed just as much in slickers with rivulets trickling down one's back as in the sunshine, appetites which did away with plate after plate of hot cakes before they ever reached the end of the tables, the daily chore of making lunches for the next day's expeditions, and especially the tea on the return from a climb —these are all part of a living experience. It is not easy to put into words other more intimate impressions. But the 1945 camp was assuredly rich in its personnel. In addition to those already mentioned, we had with us the

Mundays, who were very generous in sharing their deep knowledge of mountains and woods. Mr. Sanson, the nestor of Banff and Sulphur Mountain, took the twelve-mile trail in his octogenarian stride and opened wide his book of wilderness wisdom. And then there were the many thoughtful kindnesses, such as one member's provision of flowers for the tables, labelled with their proper botanical names.

But an Alpine Club Camp has for its primary reason the promotion of climbing. In this respect that of last summer was exceptionally successful. A large number of excellent mountaineers being present, the climbing committee was rich in experience. Volunteer guides gave sacrificially of time and strength with the result that, when climbs were undertaken, in practically every case summits were attained. Instruction for beginning members was given by Eric Brooks and Rex Gibson. Under the direction of the latter, a fly camp was set up at the Memorial Hut, an invaluable aid for the various climbs made during the second week. The considerable list of ascents includes Eremite, Alcove, Angle, Outpost and Memorial, Thunderbolt, Three Blind Mice (traverse), Surprise Point, Simon and MacDonell (singly and traverse), Bennington, Parapet, Paragon, and Oubliette. Several new routes were also worked out.

The Camp was concluded in good weather, but sunny skies made the trail no shorter returning than going, the last two miles in particular seeming interminable. Doubtless one reason for the enthusiastic vote approving the Bugaboos for the next Camp was the announcement that its site would be a comparatively short distance from the road. For very many the Eremite Valley Camp will be long remembered for its exceptional beauty of location, its fine variety of climbing, the competency of its administration, and its large measure of good fellowship.

# BIRDS AND MAMMALS OF REVELSTOKE NATIONAL PARK

BY I. MCTAGGART COWAN, J. A. MUNRO

## PART II[1]

### Birds

Inasmuch as Mount Revelstoke has a range in altitude from approximately 1,500 to 7,000 feet that includes three biotic areas it supports a considerable variety of bird life. The motor road traverses typical samples of two biotic areas—the Columbia Forest and the Sub-alpine Forest—and, as birds are attracted to openings in the forest such as a road provides, few better places for observation could be found. Certain species, for example, rufous hummingbird, golden-crowned kinglet, red-breasted nuthatch, varied thrush, Audubon warbler and Oregon junco are confined to no particular zone and are common in suitable habitats from base level to timberline. Other species are definitely restricted. Thus willow thrush, crow, Nashville warbler and catbird are associated with brushy thickets and fields at the base of the mountain, while pine grosbeak, hermit thrush and fox sparrow are limited to the sub-alpine forest. In late May and early June (1943) the most common bird voices on the lower slopes were those of Audubon warbler, red-eyed vireo, warbling vireo and western tanager. The olive-backed thrush and willow thrush arrived sometime between June 2 and June 7, and on the evening of the latter date were heard singing in the same area.

In August bird life is most abundant on the summit area of sub-alpine meadow and open spruce and alpine-fir forest (part 1, figure 2). Here Canada jay and pine grosbeak are seen frequently and it is common to find troops of mountain chickadee, golden-crowned kinglet, red-breasted nuthatch, Audubon warbler and Oregon junco. These move about freely so that a concentration appears to be taking place in one stand of conifers while other similar places are temporarily devoid of birds. This open country is a migration highway for the two last named, as it is for hermit thrush and fox sparrow.

### List of Birds

The following account of 95 species from the park and its immediate boundary along the Big Bend Highway consists of 72 species recorded by ourselves and 23 included solely on the basis of early observations by John Macoun.[2] The latter species, marked with an asterisk, are mainly birds of the valley bottom, an area outside the boundaries of the park. In the limited time at our disposal it was not possible to extend our investigations into this region.

In matters of nomenclature we have followed the *American Ornithologists Union Check List of North American Birds,* 1931 Ed. and supplements 19 and 20, 1945. The trinomial is used only where specimens have been available from the park or closely adjacent areas.

Canada goose. *Branta canadensis.*

Found nesting near Revelstoke in 1890 by Macoun but its present status as a nesting species is unknown. From near the park gates on May 26, 1943, a flock of nine was seen flying south.

1 Part One, including the introduction and section on the mammals, appeared in *C.A.J.*. xxix, No. 1, 1944-45: 100-121.

2 Macoun, J., *1900-04 Catalogue of Canadian Birds,* Ottawa, p. 733.

*Hooded merganser. *Lophodytes cucullatus.*

Reported breeding at mouth of Illecillewaet River, May 21,1890 (Macoun).

Goshawk. *Astur gentilis.*

One seen beside the road near Fifteen Mile Creek, August 25, 1942.

* Sharp-shinned hawk. *Accipiter striatus.*

Recorded by Macoun as common at Revelstoke but not seen by us.

Cooper hawk. *Accipiter cooperi.*

A Cooper hawk was taken at Revelstoke by Macoun on May 5, 1890. A single bird at Eight Mile on July 22, 1937 is our only record from the park.

Red-tailed hawk. *Buteo jamaicensis.*

Seen several times in July, 1937, at elevations from base level to 5,600 feet. On July 19 a pair of adults was watched hunting by the roadside near the 5,900-foot level. One of them caught a ground squirrel and flew with it to a tree but on being disturbed dropped its prey which promptly scurried into a nearby burrow while the hawk flew off screaming shrilly.

A full-grown young of this species was flushed from a. tree at the side of the road near the Ten Mile trail on August 13, 1943.

Macoun notes it as common at Revelstoke in the spring of 1890.

The single specimen examined is typical of the race *B. b. calurus*.

*Swainson hawk. *Buteo swainsoni.*

One collected May 5,1890 (Macoun).

Golden eagle. *Aquila chrysaetos.*

Eagles were seen almost daily during our work near the summit and at Eva Lake in 1937. A favorite hunting ground consisted of several large rockslides on the west face of Mount Revelstoke below the lookout (part 1, figure 3.) Here they came daily in search of hoary marmots. On August 7, 1943, one stood on the cliff above the southernmost of these slides. Later it launched forth on the air, and flapping and gliding, flew out over the Columbia Valley. On the evidence of the amount of white in the tail of this bird it was considered to be approximately one year old.

On July 16, 1937, while examining the surrounding peaks through the lookout telescope we saw an adult perched on the extreme tip of Mount Harry.

Marsh hawk. *Circus cyaneus.*

On August 19, 1942, a young marsh hawk flew across an open meadow near the summit and on August 24 one, or perhaps several, were noted along the Eva Lake trail flying low over the meadows and possibly hunting Columbian ground squirrels that were abundant there. The race occurring is C. c. hudsonhis the only one known in North America.

Duck hawk. *Falco peregrinus.*

The only record is of a large dark falcon, presumably of this species, that on July 3,1937, attacked a golden eagle as it circled low over a rockslide on the south face of Mount Revelstoke. Striking at the eagle repeatedly the falcon drove the larger bird far across the Illecillewaet Valley.

Pigeon hawk. *Falco columbarius.*

One seen in flight through the open forest below the summit on August 21,1942.

Sparrow hawk. *Falco sparverius.*

Three were seen along the western base of Mount Revelstoke on July 15, 1943, but none was noted at higher elevations.

Macoun reports it as abundant at Revelstoke and gives April 9,1890, as the date of first appearance.

*P. s. sparverius* is the race represented.

Dusky grouse. *Dendragapus obscurus.*

Though Macoun referred to this bird as abundant in 1890, and collected a set of six fresh eggs on May 22, we found it to be extremely scarce.

In 1937 an adult male was seen close to the road near the summit on July 3 and one was collected at Eva Lake on July 11. None was seen in 1942 nor in 1943.

Mount Revelstoke specimens are somewhat darker in color even than Rocky Mountain examples of *D. o. richardsonii* but are referable to this race and show no approach to the pale race *pallidus* of the Okanagan Valley.

Franklin grouse. *Canachites franklini.*

In 1937 an adult female taken near Eight Mile cabin on July 20, and a female with one three-quarter grown young seen in the same locality on July 24, represent the only records. The first of these had been brooding but lost either her eggs or chicks. In 1942 and 1943 just two birds were seen, a female and half-grown young flushed from the highway near Ten Mile trail on August 13, 1943.

Thus with three adult hens, all of which had bred, there were but two chicks. This would suggest a very low rate of reproductive success for the Franklin grouse in Revelstoke Park. There is no indication of the background of this loss.

Ruffed grouse. *Bonasa umbellus.*

In 1937 this grouse was fairly common near the base of the mountain where six were seen on July 15. At Mile Eight it was less abundant; a female with a half-grown brood of five or six chicks on July 16 and a single bird on July 19 are the total records.

In May, 1943, it was scarce at lower levels, where a total of five was seen, or heard drumming, during an eight-day period.

Macoun reports finding two nests of six and seven eggs respectively (May 13 and May 18, 1890), and it can be inferred from the context that the species was abundant in that year.

Mount Revelstoke ruffed grouse belong to the race *B. u. umbelloides.*

White-tailed ptarmigan. *Lagopus leucurus.*

High on the peak between Eva and Miller lakes a few scattered white-bark pines had given winter shelter to a number of ptarmigan and droppings lay deep under the procumbent lower limbs of these conifers. There also on July 11, 1937, a single cock bird, which flushed from the heather clumps, was collected.

The single specimen taken is apparently referable to the northern race *L. l. leucurus.*

**Nest Of Townsend Solitaire In Clay Bank**

**Nest Of Hermit Thrush**

**Nest Of Rufous Hummingbird**

Solitary sandpiper. *Tringa solitaria.*

A single bird was seen on the shores of Balsam Lake, July 4,1937.

Horned owl. *Bubo virginianus.*

The call notes of one heard at Eva Lake in the early evening of July 10,1937, represents the only record for this species.

Nighthawk. *Chordeiles minor.*

One bird was seen at Eight Mile cabin on July 24, 1937, and several were flying over the open woods near the park gate on the evening of June 30, 1943.

Black swift. *Nephoecetes niger.*

At Balsam Lake on July 2 and July 5, 1937, a pair was seen circling high above the tree tops and on July 3 three were observed at the same locality.

Vaux swift. *Chaetura vauxi.*

Observed by Macoun at Revelstoke on May 12, 1890. In 1937 none was seen on Mount Revelstoke but on July 15, 10 miles north of Revelstoke, close to the north boundary of the park, two were watched as they swirled around a huge dead snag in which, apparently, they were nesting.

Rufous hummingbird. *Selasphorus rufus.*

Seen at Balsam Lake on July 3 and July 4, 1937. On August 9, 1943, a female with two full-grown young near the Eva Lake trail, was watched for some time and subsequently one or more were recorded at Fifteen Mile Creek. In 1890 Macoun noted its first appearance at Revelstoke on April 30 after which it became common and continued so until May 30.

Red-shafted flicker. *Colaptes cafer.*

Summer visitant chiefly along the Columbia River and occurs also at high altitudes in the park. On August 20, 1942, near the summit, a bird of the year was observed feeding on ants and on the following day near the same place an adult female and one full-grown young were recorded. At least two were seen near Fifteen Mile Creek on August 12, 1943. Macoun records it as common at Revelstoke and identifies his specimens as *C. c. collaris.*

Pileated woodpecker. *Coephloeus pileatus.*

The only one seen by us was at Eight Mile on July 25, 1937, but at several points adjacent to Balsam Lake the unmistakeable work of this woodpecker was apparent. This consisted of large holes cut in the bases of moribund spruce and balsam. The chips from these excavations were scattered for several feet on the ground below the trees.

Lewis woodpecker. *Asyndesmus lewisi.*

In 1937 seen only in the area contiguous to the Columbia River; apparently it entered the actual boundaries of the park on aerial, foraging flights only.

One was taken at Revelstoke on May 5, 1890, and a total of three was seen during that month (Macoun).

*Yellow-bellied sapsucker. *Sphyraphicus varius.*

Found breeding commonly at Revelstoke by Macoun in June, 1890. Not seen by us.

Hairy woodpecker. *Dryobates villosus.*

Reported by Macoun as common in burnt woods near Revelstoke in April, 1890. Our only record is of an adult female seen at Balsam Lake on July 5,1937. Doubtless the reforestation of the old burns has rendered the environment less suitable for this woodpecker.

*D. v. monticola* is the race breeding in the area but the northern race *septentrionalis* probably occurs occasionally in the winter months.

*Downy woodpecker. *Dryobates pubescens.*

Collected at Revelstoke by Macoun in April, 1891. Not seen by us. Macoun identifies his specimen as homorus the name then used for the race now named leucurus.

*Arctic three-toed woodpecker. *Picoides arcticus.*

"Common and breeding at Revelstoke, B.C. in 1890" (Macoun). There may be reasonable doubts regarding this statement as the species is nowhere common today and was not recorded by us during our studies in and around the park.

Three-toed woodpecker. *Picoides tridactylus.*

Only three were seen by us during 1937; an adult pair taken on July 2 and July 3 in the spruce forest below Balsam Lake, and a male taken near the cabin at Eva Lake on July 13.

In 1943 while none was seen, evidence of its presence was obtained. Thus a tall Engelmann spruce on the Eva Lake trail showed recent workings and on the ground below lay a pile of shell-like bark fragments chipped from the trunk. A nest hole, in a prostrate spruce at Fifteen Mile Creek was probably the work of this woodpecker.

The specimens are typical of the race *P. t. fasciatus*.

Kingbird. *Tyrannus tyrannus.*

A pair seen by the roadside just outside the park boundary on July 15, 1937, constitutes our only record though Macoun states that it was common in Revelstoke in June, 1890.

*Alder flycatcher. *Empidonax traillii.*

Common at Revelstoke in June, 1890, according to Macoun.

Wright flycatcher. *Empidonax wrightii.*

Heard at the base of the mountain on May 31, 1943. Reported as common by Macoun.

Western wood pewee. *Myiochanes richardsoni.*

Macoun found it common and nesting at low altitudes. On May 30,1943, one was heard calling at about 2,300 feet altitude.

Olive-sided flycatcher. *Nuttallornis borealis.*

One heard a mile above the park gates on June 1,1943. Macoun reports it common in spring, 1891. In August, 1943, it was heard or seen at several places in the sub-alpine forest and in the vicinity of the rockslide near Balsam Lake. Several flying young accompanied by the parents were there whenever this place was visited. On August 9 two young kept flying from one rock crest to another while the adult called from a tree top on the crag above the rock-slide. In 1937 a pair of birds was seen at Balsam Lake and another pair at Eight Mile cabin.

*Horned lark. *Otocoris alpestris.*

A horned lark was collected at Revelstoke by Macoun on April 12,1890, and the species was reported as common on that date. This was the form *O. a. arcticola*, which is likely of irregular occurrence as a transient on the flats along the river, possibly also on the alpine meadows above timberline and it may occur as a nesting bird on some of the higher ridges.

Tree swallow. *Iridoprocne bicolor.*

"Not uncommon at Revelstoke on the Columbia in April, 1890; breeding in the old trees in the river valley" (Macoun). One bird seen in Revelstoke July 15,1937.

*Rough winged swallow. *Stelgldopteryx ruficollis.*

Collected at Revelstoke by Macoun, May 6, 1890.

Canada jay. *Perisoreus canadensis.*

In 1937 Canada jays constantly were in attendance about our camps at Balsam Lake and Eva Lake. In August, 1942, adults in pairs were encountered numerous times in the upper portion of the sub-alpine forest. The following August those seen were in family groups consisting usually of two adults and one to three young. Both adults and young were moulting, the latter about half-way between the blackish Juvenal plumage and the white and grey adult plumage.

Specimens are referable to the race *P. c. bicolor*.

*Steller jay. *Cyanocitta stelleri.*

Macoun found it in large flocks in April, 1890, "afterwards they scattered and retired to the mountains at Revelstoke, B.C., to breed." Not seen by us.

*Magpie. *Pica pica.*

Macoun quotes Spreadborough as seeing it in numbers at Revelstoke in March, 1889. Not recorded by us.

Raven. *Corvus corax.*

On May 26, 1943, one was heard flying over the tree tops near the park gates. Macoun reports seeing a pair at Revelstoke in May, 1890.

Crow. *Corvus brachyrhynchos.*

In May, 1943, a small number, not counted, was seen several times on an open flat east of the park gates. Macoun reports it as rather rare along the Columbia River flats at Revelstoke; presumably this was in 1890. Specimens from the adjacent Sicamous area as elsewhere in central British Columbia are *C. b. hesperis.*

Clark nutcracker. *Nucifraga columbiana.*

In the spring of 1890 Macoun found it common about Revelstoke. One was seen on the summit of Mount Revelstoke August 20, 1942, and two on the Eva Lake trail August 9, 1943. In 1937 during July a total of eight birds was encountered at Eva Lake, Balsam Lake, Eight Mile cabin and at the foot of the mountain. Thus it can be seen the species has a wide altitudinal distribution in the region. One bird watched near the lookout tower on July 16,1937, was feeding on grasshoppers. It flew from one large boulder to another and from these vantage points plunged repeatedly to the ground to rise again with a grasshopper in its beak.

Black-capped chickadee. *Parus atricapillus.*

Seen by us near the summit of Mount Revelstoke on July 2 and July 3,1937, and near the base of the mountain on May 28,1943. Reported by Macoun as common in April and May, 1890.

Specimens are referable to the race *P. a. septentrionalis.*

Mountain chickadee. *Par us gambeli.*

Chickadees of this species were seen and heard frequently in the higher parts of the sub-alpine forest in July, 1937, and an adult pair was collected at Balsam Lake on July 5. On August 7, 1943, family parties consisting of parents, and young in fresh Juvenal plumage, were examined at close range through 6X binoculars.

The race on Mount Revelstoke is *P. g. grinnelli*.

Hudsonian chickadee. *Parus hudsonicus.*

Apparently uncommon and occurring only in the sub-alpine forest. On July 8,1937, a small flock was encountered and specimens collected near Balsam Lake. On August 24, 1942, a band of five or six was called up in tall alpine firs along the Eva Lake trail. The Mount Revelstoke birds are inseparable from the race of the western slope of the Rockies, *P. h. columbianus.*

Chestnut-backed chickadee. *Parus rufescens.*

This characteristic species of the Columbian Forest was observed but three times. The first was a pair that came to a pigmy owl call on July 19,1937, near Eight Mile cabin, and on July 24 in the same general region three were seen and specimens taken. Again on July 25 several were identified in a mixed flock of black-capped chickadees, nuthatches and golden-crowned kinglets.

The chestnut-backed chickadee of the Coast Forest biotic area and of the Columbia Forest biotic area are identified as the race *P. r. rufescens.*

Red-breasted nuthatch. *Sitta canadensis.*

Observed from base level to the open spruce and balsam woods on the summit where it was most abundant. In July, 1937, and August, 1943, adults, and juvenals moulting from first plumage, commonly formed part of the vagrant bands of forest birds that appeared to feed and travel in more or less close association.

* Brown creeper. *Certhia familiar is.*

None was seen by us but it is a bird that may be looked for on the lower mountain slopes. Macoun mentions it as quite rare and records seeing two only in 1890.

*House wren. *Troglodytes aedon.*

Of probable occurrence along the base of Mount Revelstoke. Macoun reports the taking of a specimen on May 3, 1890. Winter wren. Troglodytes troglodytes.

Not common in 1942 and 1943. On August 24, 1942, at least three were seen along the Eva Lake trail and on May 27 one was heard beside a small spring at Four Mile. Macoun reports its first appearance on April 10, 1890, and states that later it became more common and nested in the thick woods.

Mount Revelstoke specimens are referable to the coastal race *T. t. hiemalis.*

Catbird. *Dumetella carolinensis.*

Apparently occurs only in the open woodland and brush patches of lower elevations. A single bird near Revelstoke on July 15, 1937, and another seen flying into a brushy thicket close to

the park gate on June 30, 1943, constitute our only records.

Robin. *Turdus migratorius.*

Summer visitant, not particularly common on the lower levels of Mount Revelstoke, casual at higher altitudes. A single bird at Balsam Lake on July 3, 1937, was the only one seen on the summit during our field period that year. On August 9, 1943, a female was seen and a male heard singing on the Eva Lake trail. The excited behavior of the former suggested that she was feeding young. Macoun notes its first arrival in 1890 on April 10 and remarks that it became common soon after. The race represented is *T. m. propinquus.*

Varied thrush. *Ixoreus naevius.*

Summer visitant, nesting from near base level to the higher portions of the sub-alpine forest. The familiar and unmistakable call note is one of the characteristic sounds of the forested park areas in summer.

In July, 1937, it was not particularly common. A pair was evidently nesting in a small valley east of our Balsam Lake camp on July 1 and other birds were met with both there and at Eva Lake.

In late May, 1943, paired birds were encountered from the park gates to about 3,000-foot level which was the highest altitude visited at that time. On May 29 a pair seen along one of the trails at about 2,300 feet altitude was evidently nesting. At Balsam Lake on August 7, 1943, a pair accompanied a brood of young about three-quarters grown. The latter whistled in the rain numerous times, the sound shorter, less clear and precise than that of the adult.

Macoun notes it arriving at Revelstoke April 9, 1890, and states it was common for a few days after which it left the river bottoms for the mountains.

Macoun identifies his specimens as l. n. naevius but we have not examined these. Specimens from the Monashee Range to the west are l. n. meruloides and it is assumed that the Mount Revelstoke birds also belong to this race.

Hermit thrush. *Hylocichla guttata.*

An abundant summer visitant to the semi-open summit country. In 1937 it was perhaps the most abundant bird along the upper margin of the sub-alpine forest where large numbers of singing males were seen and heard during the evening hours.

In August of 1942 and 1943 the nesting season was long past, hermit thrushes were hard to locate and it seemed probable that some post-breeding birds with their young had left the district. On August 20, 1942, an adult on the tip of a small spruce drooped its wings and called excitedly. This bird evidently was caring for young as were several others heard and seen at Balsam Lake and at Fifteen Mile Creek in August, 1943.

A series of eight males representing the breeding population of Mount Revelstoke Park have a mean wing length of 90.3 mm. and a mean bill length from nostril to tip of 9.7 mm. McCabe[3] pointed out the existence, over a wide area in southern British Columbia, of an unnamed population with dimensions intermediate between those of *H. g. guttata* and *H. g. sequoiensis* but with distinctive color characters. Our specimens belong to this population. Oberholser[4] subsequently gave the name *H. g. oromela* to the population inhabiting the Cascade Range from Oregon to

3 McCabe, T. T. and E. B.. 1932. *Condor* 34 (1): 26-40.

4 Oberholser. H. C., 1932. *Sci. Publ. Cleveland Mus. Nat. Hist.* 4 (1): 1.

British Columbia and still later Bishop named *H. g. dwighti*[5] from northern Idaho and south central British Columbia. It seems doubtful whether there are grounds for recognizing both these described races[6,7] but further systematic study will be needed before the correct application of a name to the hermit thrushes of south central British Columbia can be established.

Olive-backed thrush. *Hylocichla ustulata.*

Apparently common on the lower levels of the park. At Eight Mile cabin on July 18 and July 19, 1937, it was seen in greater numbers than any other bird. In 1943 none had arrived up to June 1, but in the evening of June 7 a number were heard singing.

The race at Revelstoke is *H. u. swainsoni.*

Wilson thrush. *Hylocichla fuscescens.*

Several heard singing near the park gates in the evening of June 7,1943. Macoun reported it as common on May 30, 1890.

*H. f. salicicola* is the race occurring in British Columbia.

Mountain bluebird. *Sialia currucoides.*

Of casual occurrence on Mount Revelstoke in 1937. On July 1, a pair was actively foraging over the open alpine meadowland on the summit. This pair or another appeared near the same place on July 8 and at Eight Mile cabin on July 19 three paused briefly during a flight in a southerly direction.

Reported by Macoun as quite common along the mountain slopes in May, 1890.

Townsend solitaire. *Myadestes townsendi.*

Rare in 1937 when only two individuals were seen, one on the summit on July 1, the other at Eight Mile on July 25.

In late May, 1943, it was much more numerous and several pairs were seen, and the males heard singing, along the highway between the park gates and Mile Five. On May 31 a nest and four eggs was examined. The nest, composed of fine twigs and plant stalks, including dried stems and blossoms of white clover, and lined with needles of Rocky Mountain white pine, was built in a crevice between two boulders close to the top of a sand bank adjoining a rock cut alongside the road. The female was flushed from the nest on this day and on the following and the male was seen in the vicinity.

Macoun reports it as quite common April 16-20, 1890.

Golden-crowned kinglet. *Regulus satrapa.*

Numerous mated pairs were observed in late May, 1943, on the lower slopes. Later in that year it was abundant in the sub-alpine forest and on August 12 a band of 20± was called up to within a few yards. The majority in this band were young moulting from Juvenal plumage, as were others seen elsewhere in the same general area.

In 1890 near Revelstoke Macoun found it common up to April 20 after which all disappeared.

5 Bishop, L. B. 1933. *Proc. Biol. Soc. Wash.* 46: 201-206.

6 McCabe, T. T. and E. B. 1933. *Condor* 35: 122-123.

7 Miller, A. H. 1941. *Condor* 43 (6): 257-267.

**Female Franklin Grouse**

**Eggs Of Franklin Grouse**

**Western Wood Peewee**

Ruby-crowned kinglet. *Regulus calendula.*

Fairly common in 1937, singing males being heard or birds seen at many places in the sub-alpine forest near Balsam Lake. At Eight Mile it was present in smaller numbers. During the period May 25-June 1, 1943, it was conspicuously absent from the lower mountain slopes and none was seen in August of that year at higher altitudes.

Macoun mentions it as common near Revelstoke in April, 1890, and considered it to be a transient there.

American pipit. *Anthus spinoletta.*

Seen once only. On July 8, 1943, two individuals were watched as they foraged along the margin of a small remnant snow bank on Mount Revelstoke.

Bohemian waxwing. *Bombycilla garrula.*

On July 24, 1937, a flock of 10 alighted in a tree top near our Eight Mile cabin camp. J. E. H. Kelso[8] records, in connection with his observations of evening grosbeak, "immense numbers of Bohemian waxwings." These were feeding on mountain ash berries in the town of Revelstoke during the winter of 1917-18.

Cedar waxwing. *Bombycilla cedrorum.*

Two seen at Eight Mile cabin on July 15, 1937, are our only records.

Red-eyed vireo. *Vireo olivacea.*

In 1937 this species was encountered only at Eight Mile cabin where six individuals, apparently nesting pairs, were observed on July 15,16 and 18. Common on the lower slopes of the mountain on May 26, 1943, and subsequently, when the characteristic call was heard in the tall poplars.

Warbling vireo. *Vireo gilvus.*

Common on the lower slopes in the same locality frequented by the red-eyed vireo but not ranging so high as that species. On May 26 and May 27, 1943, several were heard singing. Macoun records collecting a specimen on May 6, 1890.

Nashville warbler. *Ilermivora ruficapilla.*

On June 30, 1943, one was observed in a brush-thicket near the park gates. This bird was singing and evidently on its nesting territory. Macoun noted the first arrival at Revelstoke on May 6, 1890.

Yellow warbler. *Dendroica aest'wa.*

Reported very common at Revelstoke in June, 1890 (Macoun). Not seen by us in the park area.

*Myrtle warbler. *Dendroica coronata.*

Recorded from Revelstoke by Macoun April 24, 1890.

Audubon warbler. *Dendroica audoboni.*

Uncommon in 1937 when only three were noted but five years later it was found to be one of the most abundant birds in the park, nesting from near base level to timber-line. In the latter part

8 *Ibis,* October, 1936:712.

of May mated pairs were on territories and the song of the male was one of the commonest sounds in the woods. On August 24, 1942, a migration of young in first winter plumage was noted along the Eva Lake trail and in August, 1943, moulting young were seen daily in the woods along the summit.

Macoun reports the first arrival at Revelstoke April 12,1890.

Macgillivray warbler. *Opororms tolmiei.*

Probably nests regularly in brush thickets on the lower levels of the park. Between July 19 and July 24,1937, it was found to be fairly common near Eight Mile cabin. On June 7, 1943, near the park gates a male was seen carrying insects in its bill, this action and its general behavior suggesting that young were being fed.

Reported by Macoun May 21, 1890.

*Yellow-throat. *Geothlypis trickas.*

"First seen at Revelstoke on May 15, 1890, later they became common and commenced to breed, the males very much in evidence" (Macoun).

Wilson warbler. *Wilsonii pusilla.*

Many of the thickets of deciduous growth on the lower part of Mount Revelstoke were occupied by this species in late May, 1943. On June 1 one was heard singing. A young male in first winter plumage was seen in second-growth balsam along the Eva Lake trail August 24, 1942. Undoubtedly a fairly common summer visitant to much of the timbered portion of the park.

Redstart. *Setophaga ruticilla.*

Two seen near Revelstoke July 15, 1937, but not recorded within the park boundaries.

Macoun reports seeing a few at Revelstoke in May, 1890.

*Western meadowlark. *Sturnella neglecta.*

There is suitable habitat for this species on the open flats between the base of the mountain and the river and very likely it is a summer visitant there.

Macoun reports seeing one in 1890.

*Brewer blackbird. *Euphagus cyanocephalus.*

Probably a summer visitant to the open habitat along the base of the mountain.

Macoun reports it under date of April 4, 1890.

Cowbird. *Molothrus ater.*

Three seen below the park gates on June 30,1943. Two observed by Macoun May 25, 1890.

Western tanager. *Piranga ludoviciana.*

One of the commonest species in the mixed coniferous and deciduous woods at low levels and conspicuous by reason of its appearance and clear robin-like song. Very often one may be detected near the topmost twig of a pine where, conspicuous against the dark green foliage, and with bill pointed upward he delivers his song time and again.

*Black-headed grosbeak. *Hedymeles melanocephalus.*

"Heard in the woods at Revelstoke May 26, 1890" (Macoun).

Evening grosbeak. *Hesperiphona vespertina.*

Our only records concern four that stopped for a few minutes in a tree top near our Balsam Lake camp on July 5, 1937, and a single bird flying overhead at Eight Mile cabin on July 19. There was no indication that these were nesting in the vicinity. J. E. H. Kelso (loc. cit.) notes that "very large flocks remained in and around the town of Revelstoke in the winter of 1917-18."

Pine grosbeak. *Pinicola enucleator.*

An abundant summer visitant to the sub-alpine forest area from its upper limits down at least to Fifteen Mile Creek. In 1937 many, almost all of them in pairs, were seen daily at widely scattered points. They came readily to an owl call and in other ways showed that nesting was in progress. About half the males were in the fully adult red and grey plumage, the remainder in the yellow and grey plumage of the sub-adult. Presumably all of the former had bred and as the two sub-adult specimens collected had enlarged testes it could be inferred that all of similar age had reached sexual maturity. In 1943 it was observed at Balsam Lake and more commonly at Fifteen Mile Creek where on August 11 a flock of eight came to the pygmy owl call. So far as could be determined all were adult post-breeding males. None was seen in the same localities during the period August 19-25,1942.

Macoun reported pine grosbeaks common in Revelstoke region in the spring of 1890 until April 28 and noted the chief food to be buds of "balsam poplar."

Two stomachs examined by us in July, 1937, contained unripe seeds of avalanche lily.

Specimens represent the race P. e. montana.

Rosy finch. *Leucosticte tephrocotis.*

Nesting in small numbers at higher elevations east of Eva Lake in July, 1937. On July 12 of that year three pairs were seen there and all were feeding nesting young.

One female was watched as it hunted food on a cliff face. It worked quickly along a ledge, actively picking here and there and making short runs that terminated with a flutter of wings much in the manner of a hermit thrush. After one ledge was examined it dropped to another and continued feeding in this way until its cheek pouches were full.

Two specimens were taken. The pouches of one contained two small caterpillars, two ground-beetle larvae, five sprouting balsam seeds and many saxifrage seeds, those of the other held four balsam seeds and a large number of saxifrage and other small seeds.

In early August, 1943, the rosy finches were flocking and on August 9 a group of 16 was seen in flight along the open valley near Balsam Lake.

Breeding birds were L. t. tephrocotis but the western race L. t. littoralis may be expected also during the winter and early spring.

*Redpoll. *Acanthis linaria.*

"Common in flocks around Revelstoke up to the last of April, 1890" (Macoun).

Pine siskin. *Spinus pinus.*

Very common in the parkland forests near timberline in both 1937 and 1943. In the former year almost 400 birds were tallied in two weeks and in the latter year, on August 6, a total of 30 in small flocks was counted. A young bird moulting from juvenal plumage was taken at Fifteen Mile Creek on August 12, 1943.

Red crossbill. *Loxia curvirostra.*

A total of 18 crossbills of this species was counted near Balsam Lake on July 2,4 and 8,1937. It was heard but once in 1942, August, near Fifteen Mile Creek. The following year it appeared to be entirely absent from the region dominated by spruce and balsam fir, possibly because of the scarcity of cones. One was heard in May near the base of Mount Revelstoke.

Specimens are all *L. c. bendirei.*

White-winged crossbill. *Loxia leucoptera.*

More numerous than the last during our 1937 field study. Three were seen together at Balsam Lake on July 6, about 20 in pairs and small groups at Eight Mile on July 15 and 6 in the same locality on July 19. On other days smaller numbers were counted. None was recorded in 1942 nor in 1943.

Two adult males in full song were collected and upon examination proved to be in breeding condition. They are *L. l. leucoptera.*

Savannah sparrow. *Passerculus sandwichensis.*

On August 24, 1942, a single individual, in one of the meadows along the Eva Lake trail, was examined at close range through 6X binoculars.

Oregon junco. *Junco oreganus.*

Common throughout the park up to timberline. In late May, 1943, mated pairs were met with daily and it was particularly common along the highway which provides attractive nesting sites. Here on May 28, a nest of dry plant stalks lined with fine grass and deer hair contained five eggs. This had been built within a small cavity in a sloping bank by the road. During the period August 6-13, 1943, numerous pairs with broods frequented open woods near the summit while at the same time along higher levels numbers were migrating. On August 6 approximately 50 were counted along two miles of semi-open territory.

Mount Revelstoke specimens have been identified by Dr. A. H. Miller of the Museum of Vertebrate Zoology, Berkeley, California, as *J. o. montanus.*

Tree sparrow. *Spisella arborea.*

"Quite common at Revelstoke in April, 1891, up to April 17 when they disappeared" (Macoun).

Chipping sparrow. *Spizella passerina.*

Not common but with wide altitudinal range. In 1937 pairs of nesting birds were seen at all elevations studied. Its status in 1942 and 1943 was much the same.

On May 27, 1943, a single male was observed near the park gates and the following day at slightly higher altitude others were seen and heard. Adults, and young in first winter plumage, were recorded on the summit, August 20 and 24, 1942.

The race *S. p. arlzonae* is the one occurring in the park.

*White-crowned sparrow. *Zonotrichia leucophrys.*

"Very abundant at Revelstoke in April, 1890" (Macoun). None seen by us. The absence of both white-crowned and golden crowned sparrows from the alpine avifauna is a noteworthy feature of this region. Both to the east in the Rockies and westward in the Cascades one or both species are characteristic of the timberline biota.

Fox sparrow. *Passerella iliaca.*

Prominent among the bird voices of the timberline region in July, 1937, was the loud, tuneless song of the fox sparrow. At Balsam Lake adult birds were seen daily and a Juvenal just out of the nest was taken on July 10.

In August 1942 and 1943 it was not common, probably a large part of the population had raised their broods and moved elsewhere. On August 20, 1942, near Eva Lake, an adult acted in an excited manner as if feeding young and this bird, or another, was heard singing. On August 6, 1943, a juvenile moulting to second plumage was collected and between that date and August 12 several quite unobtrusive birds were flushed in or near rhododendron thickets.

One specimen was collected at Revelstoke, April 28, 1890, and reported by Macoun under the name *P. i. schistacea.* Our specimens are referred to the race *P. i. altivagans* which was described subsequent to the publication of Macoun's catalogue.

*Lincoln sparrow. *Melospiza lincolnii.*

"Quite common at Revelstoke in May, 1890" (Macoun).

*Song sparrow. *Melospiza melodla.*

"Not uncommon at Revelstoke in April, 1890" (Macoun). Not seen by us in the park area.

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# SOME WARS MAKE MOUNTAINEERS

BY LT.-COL. H. S. ROBINSON

Of special interest to members of the Alpine Club of Canada are the experiences of many returning from the Forces, whose service in global warfare has of necessity taught them much of mountains and mountaineering.

If they were with ships of the Allied Navies attacking Norway, Italy or Balkan shores, the problems of nearby mountain enemy observation posts controlling the fire of shore defences provided them with many sticky moments. Aircrews flying in North Africa, Burma, Italy or Germany well remember unpleasant thrills when strange mountain peaks suddenly loomed through the cloudbank or when enemy flak trapped them in what was reported to be a "quiet" valley. It was the Army man however who, whether he liked it or not, learned most about the mountains. Yes, all branches of the Army: engineers and other services, all types of motorized units, artillery, etc., but above all, the hard-worked infantrymen, who, so often, learned on their own flat feet.

Few of the 8th Army will soon forget their progress up the length of the mountain chains of Italy and Austria. Through the shimmering dust clouds, along the roads and fields in the blistering heat of summer, they fought part way up the Appennines until the biting winds, the rain, sleet and snow of "Sunny Italy" in winter, made further progress almost impossible. Certainly few of the 1st Canadian Division would relish a repeat performance of those early weeks in Sicily or on the foot of Italy. Fresh from the cool green hills and seacoasts of bonnie Scotland, handicapped by the loss of vehicles torpedoed en route, they marched many a weary kilometer through that inferno of heat that is Sicily in July and August. New tropical kit brought sunburn and invited the plague of malarial insects. To the thick dust clouds of advancing men and vehicles was added that of the Sicilian mules as packtrains hastily substituted for the lost vehicles. Bodies caked with dust, eyes unaccustomed to such a blinding sun, these Canadians from "Our Lady of the Snows" developed new climbing muscles in capturing villages perched on rocky ledges high up on the many hills. They also learned mule-management through some of the more urgent and motivating Italian words!

Major Lord Tweedsmuir's tactics in sending "an assault company of twenty of the most active men from each Rifle Company" of the Hastings and Prince Edward Regiment up the east cliff-face of Assoro, which the Germans considered unscalable, gave that valuable element of surprise which greatly helped in routing the enemy from this commanding 3,000-foot peak. Surely they needed "the most active men" for that attack! Happily the lessons taught by Wolfe in scaling the Quebec heights to gain the Plains of Abraham in winning our fair Dominion are not forgotten. Everest packs to carry emergency rations and ammunition were used by the 100 volunteers of the Royal Canadian Regiment to carry these much-needed supplies the following night to the hard-pressed Hastings men on this mountain top. The success of this tough scaling manoeuvre at Assoro brought about its repetition on subsequent occasions as the campaign advanced.

Yes, wearers of the famous Red Patch of Canada's 1st Infantry Division learned their mountain-fighting the hard way — pitted against Divisions which had won "tough" reputations both in the German Army and amongst her enemies. Who has not heard of the 15th and 29th Panzer Grenadiers, the 1st Parachute Division, or the Herman Goering Panzers? Enemy bridge demolitions, craters, and mined stretches in narrow mountain roads were encountered for the first time by the Three Rivers Tank Regiment —valuable experience for future terrain in the north.

Men of the Patricias, 48th Highlanders, Edmontons, 22nd and Seaforth Regiments well remember the steady pattern of these advances; up a valley to a height, down the slope, through another valley and up to the next height, day and night, in contact with the experienced Nazi foe fighting his clever delaying action.

From the landing, in four weeks, these now bronzed Canadians had marched about 120 miles in this mountainous country, farther than any other division in the 8th Army, and had played the major role in the success of Montgomery's famous "left hook" in this campaign. In their latter days in this action they captured Hill 736, Monte Revisotto, and Monte Seggio, all extinct subsidiary cones of the main volcano, the famous Mt. Etna (10,760 feet), which last erupted in 1910.

This mountain, famed in legend, covering some 460 square miles, is 90 miles in circumference at its base, and although snow-covered for most of the year, summer usually clears the summit of its white mantle. Some seismologists claim that it is one of the three major cones of the subterranean system of which Stromboli and Vesuvius are the other two. On a journey north by sea in the blackout, the reddened glow of Stromboli in the Lipari Islands could be seen pulsating in the midnight sky. Truly a wonderful sight!

The crossing of the Straits of Messina to the toe of Italy recalled the disastrous earthquake of 1908 with its terrible destruction and the loss of 150,000 lives. It is from such great upheavals that mountain chains take form.

The spectacular advance of the 8th Army up the mountainous foot of the mainland relieved German pressure on the 5th Army's landing at Salerno, which for several days had been in a precarious position. Everyone in that combined operation, from General Mark Clark down, will confirm the difficulties of landing and remaining on open beach territory with an enemy dominating the area from observation posts on all the surrounding heights.

Thus it was that the bulk of the 8th and 7th Armies landed in Sicily, and the 5th on the mainland, into immediate contact with the enemy in mountainous country with no previous experience in this type of warfare. The times and the terrain taught them much of the mountains. Had they not caught enemy forces inferior in number off balance, it is difficult to estimate the alternative result. It is therefore to their credit that the Sicilian Campaign terminated so rapidly—even though the enemy was successful in getting his objective, i.e., withdrawing his forces to the mainland. If the Allies had landed in Sicily with enough troops well trained in mountain warfare, who knows that these German forces might have been more speedily out-maneouvred, bottled up on that island and never withdrawn to the mainland to fight again? 'Twas a dreary chase of many months and many miles till we closed the Brenner Pass and wrote "finite," in May, 1945.

Fortunately the delicate toehold obtained at Salerno eventually became a firm foothold, from which the march inland past Vesuvius delivered the battered port of Naples into our hands.

During the winter of 1943-44 (and what a winter!) many thousands of the 5th and 8th Armies (including the 1st Canadian Corps) made opportunities to visit the ancient cities of Pompeii and Herculaneum partially excavated from the devastating rain of Vesuvian lava which buried them centuries ago. In March, as if in protest at the explosions of war all around it, the great volcano, without any warning, again erupted, and for many days the sky was obscured by the great column of smoke and ash belching forth sometimes 30,000 feet high. Shifting breezes drifted this ash all over southern Italy even as far as Bari — 200 kilometers away. At night the red-glowing streams of molten lava, like gigantic fingers, slowly advancing down the mountain from the crater lip, provided an awe-inspiring sight. The power of the subterranean forces of nature was seldom more strikingly demonstrated.

The Mountain School of the Central Mediterranean Force had been training British troops in the mountains of the Lebanon in Syria up until 1943 when it was shifted to a location in the Central Appennines. Lt.-Col. J. Scott of Antarctic fame, with an excellent staff of officers, NCO's and men, all experienced in climbing, skiing, and living in winter conditions, had contributed much both to the elementary and advanced knowledge of troops of the C.M.F. Specially selected personnel from many units and formations had been well grounded in these activities and their combined knowledge passed to many others through their instruction. In this manner many a novice was initiated into the hazards of rock-climbing with ropes, and the simplicity (?) of skiing.

One of the most original and daring rescues of any war, was carried out in these mountains some months previously when Mussolini was plucked from a well-guarded mountain fortress by a handful of German paratroops. Il Duce had been dismissed by the Fascist Grand Council in Rome shortly after our Sicilian landing in July. He was taken under strong guard to an ancient castle on a mountain top, where only one steep road approached this prison. This one roadway was well posted by troops and machine guns and, as it was the only logical approach, it was considered unnecessary to retain a large force at the castle itself. Thus in the cold grey dawn when specially trained Nazi paratroops dropped silently into the castle area, they quickly disposed of the group of sentries, abducted Mussolini, and flew him to Nazi HQ in a small plane. Just one more lesson in mountain tactics taught by an alert and resourceful enemy!

During this severe winter, a body of 8th Army troops became isolated in their mountain post by a severe snowstorm which blocked all roads. In the emergency a group of volunteers from 1st Cdn Div. were outfitted with full winter equipment and, on their skis, carried in much needed rations and ammunition.

As the Allied Armies moved slowly but steadily up the Appenine chain — "the backbone of Italy" — experiences with life in the mountains greatly multiplied. From Reggio Calabria through to Campobasso many incidents of hairpin roads, steep valleys and peaks, are recalled. What memories of Monte Cassino, that impregnable bastion blocking the Allied pathway to Rome! Who can forget the beauty of his first glimpse of that Eternal City at dawn when viewed from those Alban Hills ? Truly the Appian Way has seen many a strange cavalcade.

Then the pursuit past Rome, through Viterbo, Rieti, and the wreckage of the power plants at Terni. Driving skill was well tested on the Via Flaminia to Foligno, and on the by-pass through Fabriano to the Adriatic. Will the men of the 1st Cdn Army Tank Brigade ever forget their epic advance north of Florence, on those icy mountain roads? Certainly a variety of language was developed by the 5th Army in the Futa Pass during the winter 1944-45 when the Nazis blocked all attempts to capture Bologna.

By this time the Mountain School CMF had taken over Mount Terminillo, made famous by Mussolini's influence, as a Fascist winter resort. It was a pleasure to be detailed to a course of advanced Mountain Warfare at this spot Some 100 kilometers northeast of Rome, it had been a Mecca for thousands of skiers in peacetime, who in luxury highway buses and hotels overcame the enervating influence of the bureaucracy of the patrician city. Now it was the established HQ of the Allied Forces' effort to drive the Nazis from the mountain strongholds of Italy. To Col. Scott's staff had been added the U.S. Army section including proficient ski instructors, many from the State of Washington, and a few originally from Switzerland. An able Canadian mountaineer, Major J. W. D. Foxcroft, a Seaforth from B.C., served with Col. Scott for nearly two years. With the addition of new American equipment and personnel this school taught mountaineering in all its military phases to larger groups of the Allied Armies in the CMF.

It was interesting to listen in on discussions of the relative merits of different types of equipment and inspect the variety of items such as stronger multi-laminated steel-edged skis made in St. Paul, Minnesota. Here we were surprised to recognize displayed on the wall of the lounge, excellent pictures of Maligne Lake, the Athabaska Valley and Pyramid Mountain, and to learn that Lord Lovat's Scouts had arrived from Jasper in the Canadian Rockies to complete their advanced training in mountain warfare. They spoke enthusiastically of their Canadian experiences, and some hoped to return. Unfortunately six of them were lost in an avalanche near Terminillo in January.

A Ski Course for Canadian Army personnel was established in San Marino, the oldest and smallest republic in the world. RCAF uniforms were also in evidence at this spot.

Ever since Italy had been granted co-billigerent status by the Allies, the co-operation of their Partijani groups became more evident. Many of them were formerly in Alpini Regiments and their mountain raids were carried out with commendable daring and effectiveness. For many months they were organized by clandestine radio control. By reporting enemy movements—generally observed from some mountain hideout—they greatly assisted the planning of the final destruction of the Nazi foe in North Italy. By dropping arms and supplies to them on pre-arranged signal at secluded mountain posts Allied airmen stimulated their powerful resistance movement. Parachuting in to help coordinate their efforts, Allied officers also quickly learned the fundamentals of guerilla warfare in the mountains. Many a Nazi soldier with his truckload of supplies was listed as "missing" due to these efforts. Convoys and train-loads of ammunition were mysteriously blown up, or set ablaze by Allied bombers receiving timely information.

The campaign in Italy was truly an Allied effort, and units on land, at sea, and in the air from many of the United Nations contributed their measure to the ultimate victory. We remember particularly the most experienced soldiers of them all, from the United Kingdom in the 8th Army, such as the famous "Desert Rats" who had fought all across North Africa from El Alemain to Tunisia. There were New Zealand, Polish and South African Armored Divisions, the USAAF, the Desert Air Force, comprising RAF, RCAF, and SAAF units, and Naval forces, including ships from Greece, France, Jugoslavia, and even faraway Brazil.

The French Corps including those African tribesmen — the Goums — than whom there are no fiercer mountain fighters, "did their bit" with the 5th Army for many months. Famous Indian Divisions such as the 4th, 8th and 10th, whose life, training, and fighting in their native mountains gave that touch of experience to their work, were invaluable in the difficult Italian terrain. The American 10th Mtn Div. did splendid work at Bologna and in the Italian Alps. British Commandos, American Marines and Rangers, Parachutists and Airborne Troops also received useful experience in mountaineering. The Special Service Force—a combined Canadian-USA battalion with a splendid performance record at Cassino and Anzio — knew its mountain fighting from experiences in the Pacific.

The capture of Bologna and the rapid advance across the Po north to Bolzano to close the Brenner Pass was a master-stroke, accomplishing in a few short weeks the destruction of the German Armies in Italy. The scramble of isolated Nazi groups, cut off from their formations to escape by back routes or overland into Austria, Germany, Switzerland, or France, created some amusing and fantastic situations. Even II Duce himself disguised in a German greatcoat got side-tracked with his party by the Partijani near Lake Como, and finally met the fate of all power-mad dictators.

After VE Day, more time and opportunity became available for CMF personnel to see something of the most-publicized mountain scenery in the world.

The 8th Army had swung right into Austria and Jugoslavia, while 5th Army established its HQ on beautiful Lake Garda and spread itself thinly over most of the Italian area. Six-day leave trips to Switzerland were the reward of American personnel, while the 8th Army arranged side trips through the Austrian Tyrol, the Dolomites and some of the Italian lakes. Moves "on duty" by coincidence seemed to require so many kilometers through beautiful mountain scenery and although everyone was more interested in learning his repatriation date, the mountains were a partial substitute.

In other theatres of this global war, we know of experiences in flat country, through flooded dikelands, in the deserts, and on the plains. But we know also of many thousands who have learned of the difficulties, the hardships, and the beauties of the mountains for the first time, in the Appennines and the Alps.

# GLACIER INVESTIGATION IN BANFF, YOHO AND JASPER NATIONAL PARKS

BY W. T. MCFARLANE, WATER AND POWER ENGINEER III

The meeting with the Glacier Committee of the Alpine Club of Canada, together with a reconnaissance of the Saskatchewan, Athabaska and Peyto Glaciers, which took place during the period July 20-26, was followed by a survey of the following glaciers in the Banff, Yoho and Jasper National Parks, during the period August 15-28:

| | | |
|---|---|---|
| 1. Victoria | 5. Saskatchewan | |
| 2. Yoho | 6. Angel | |
| 3. Peyto | 7. Balfour | } Investigated |
| 4. Athabaska | 8. Bow | } only |

*The first purpose of the survey* was to outline definitely the toe of the tongue by a transit traverse, the initial point of which was to be a large object which would be clearly defined and marked with yellow paint. In every case, the I.P. was a large boulder that was marked with the letters "D.G." (Dominion Government) and the year 1945. An arrow pointed to the I.P. and the R.P. (reference point).

By using the same transit point or points and R.P. each year and running a traverse of the toe of the tongue, it would be very easy to determine the amount of its recession yearly.

*The second purpose of the survey* was to measure the rate of surface velocity. This is done by establishing a line of plaques across the glacier at least one thousand feet above the tongue at right angles to the flow and intersecting each point from both ends of a base line to be laid out on solid ground, one end in line with the plaques and the other at right angles or thereabouts.

The new locations of these plaques a year from now will determine the rate of the glacier's surface velocity.

*The third purpose of the survey* was to establish camera points from which pictures could be taken each year, especially along the forefoot of the glacier.

*The fourth purpose of the survey* was to determine the flow of the creek at or near the toe of the glacier.

Mr. P. J. Jennings, Superintendent of Banff National Park, and Mr. G. Fred Horsey, Superintendent of Yoho National Park, were advised of our trip and gladly gave us whatever assistance we requested.

Mr. Sydney R. Vallance, Western Vice-President of the Alpine Club of Canada, accompanied us when both the reconnaissance and surveys were made. His knowledge of the country, including the glaciers, was invaluable and we were very much indebted to him for his assistance.

Since this is the first official report of the Dominion Water & Power Bureau recording glacier movements, it was considered advisable to implement it with a few well known facts concerning the actions of glaciers. For this information the writer is greatly indebted to reports that have appeared in the Canadian Alpine Journals which have been made available for this study.

The glaciers investigated were representative of the Wapta and Columbia icefields. They were chosen primarily on account of their accessibility from the Banff-Jasper Highway.

## Glaciers

A Glacier is a mass or stream of ice formed in regions of perennial frost from compacted snow which moves slowly downward in a manner analagous to a river over slopes and through valleys until it melts away. Owing to higher temperature at the lower levels, it breaks off in the form of icebergs on the border of the sea or avalanches over cliffs to the valley below.

Glaciers are only formed under favorable conditions:

1. An average temperature below 32 degrees F.
2. A high yearly precipitation.
3. A climate which allows an accumulation of snow in excess of the amount melted, evaporated or blown away.

Outside the Arctic regions these conditions are only found at high elevations, and it is for this reason that with high mountain ranges and rugged peaks one mostly associates snowfield, glacier and moraine.

The three principal types of glaciers are:

1. Alpine (most widely known).
2. Piedmont.
3. Continental (found in Arctic and Antarctic regions only).

1. *Alpine,* where the snow is at a considerable elevation on a mountain side and the stream flows through a valley to the open slopes below.
2. *Piedmont,* where several alpine glaciers unite and spread out over the adjacent valley or plain.
3. *Continental,* where vast areas, or even entire continents are covered.

A glacier being a river of ice, its source is at a high elevation where snow falls throughout the year and for a large portion of the time the temperature is below freezing. There being no melting, the snow becomes deeper and deeper and an indefinite accumulation would in time take place were it not for the fact that pressure from the increasing load above and many changes of temperature close to the freezing point begin the direct transformation of snow to ice without melting the whole mass.

Then begins the slow and constant motion or flow to the lower levels. More snow falls on the surface above, forming a vast field resting on the mountain side, while below is a mass of solid ice—the birth of a glacier.

The snow-covered portion is known as the accumulator or névé.

Following the course of the ice stream, a point is reached where, owing to increased temperatures and lower elevation, the accumulations of snow on the surface melt before a large amount is collected, uncovering the stream of solid ice which becomes visible, and here the dry glacier begins.

Below the snow line to the *tongue* or *snout* where the glacier melts away there is surface melting, and the phenomena of ice action may be studied in full view. This lower portion is known as the dry glacier or dissipator.

Glaciers may be simple or compound as they drain one névé into one valley, or are made up of a number of individual streams each filling a separate valley with a common snowfield or, conversely, several névés may be drained by glaciers in valleys which finally join and form one ice stream.

The crystalline structure of ice composing a glacier is very different from that frozen in the ordinary way. Snow falling at high altitudes is usually of a hard spherical form, similar to hail, which is compacted together by pressure and slight temperature changes till it assumes a banded or stratified form of solid ice with a peculiar grain and structure which instantly distinguish it from lake or river ice.

Near the tongue, the grains become larger but are crushed together and deformed as in a mass of marble.

The beautiful coloring of pure glacier ice is universally noted and also peculiar bandings of the clearer sections between the névé and the tongue.

Two of the most striking characteristics of glaciers are crevasses and moraines. Tension causes a rupture or crack which becomes enlarged by melting and change of slope. Early in the season they are filled with snow.

All glacier-transported material is known under the head of moraine. If at the tongue, it is known as terminal; if at the side, lateral; beneath, sub-glacial or ground. They are often of great height and length.

Large isolated rocks or boulders are usually found resting on the surface of the ice, firmly fixed on the crest of moraines or resting entirely apart from the other debris in the valley bottom below. They are known as erratics.

Moraine and crevasse make possible many minor glacier phenomena. A bed of moraine over one foot thick acts as a blanket and protects the ice below from the sun's rays.

Glacier water may readily be distinguished from that melted from snow by its gray, muddy character.

**Glacial Flow**

In the upper sections, the flow is least and increases to the névé line where theoretically it is at a maximum and then decreases to the tongue.

The flow is greater where no moraines and embedded rocks occur. Varying climate, precipitation and rate of flow are principal causes of glacier variations which are now being investigated with great care.

Conditions around a glacier change most rapidly, even within a few weeks. Streams break through, while others disappear; on the ice, crevasses open and close and great walls of ice form where before there were level plains.

A continuous photographic record of the tongue of a glacier supplies one of the most accurate means of comparison known.

**1. The Victoria Glacier,** at the head of Lake Louise, was investigated on August 17 and 18. This glacier is formed from the masses which avalanche from the upper slopes of Mount Victoria and fall 2,500 feet to the secondary glacier below.

A Transit point was established near the toe on a large rock which was resting on what appeared to be moraine. The rock was distinctly marked with yellow paint and from its stadia shots were taken to different places on the toe of the tongue. A reference line magnetic bearing S87E and 185 feet long from the rock was used as a zero line from which all angles were turned. Several photos were taken.

We then traversed almost the entire length of the glacier in order to locate a place for the plaques. There were finally placed a few hundred feet from the end of the glacier beyond the junction of the Victoria and Lefroy Glaciers. It was not very satisfactory as we were unable to establish a base line and it was raining hard. The entire glacier is covered with rocks. No markings

of previous investigators were found to tie our survey on to. This was to be expected since no recent investigations had been made.

Recession during period 1898 and 1903, as recorded by Messrs. Vaux, appears to average 17 feet annually. Reference should be made to Canadian Alpine Journals for what further information is available.

2. The **Yoho Glacier** was investigated on August 20. About a seven-mile hike from the ranger's cabin just beyond Takakkaw Falls brought us to the edge of timber and about one-quarter mile from junction of the Yoho and Waves Creeks. No markings either up or down the valley, as recorded in the Canadian Alpine Journals, could be located. No records had been made for years.

The Yoho River was followed around the westerly end of a sloping shoulder of rock (which divides the valleys of the Yoho and Waves) until the valley got very narrow and the going impassable. By climbing up the rocks on the left bank, we were able to obtain a view of the toe of the glacier. It was not accessible and was about 400 feet distant. The tongue appeared to be very steep and in a short time will be a hanging glacier.

Several pictures were taken from a camera point we established. It is doubtful if any further useful information for our purpose can be obtained regarding the movement of this glacier. To reach the top to find out if it would be feasible to establish a line of plaques, regular glacier equipment which should include boots, ice-axes, and a qualified guide are necessary.

It is noted that, according to records published in the Canadian Alpine Journal, the average rate of retreat of ice forefoot was 48 feet during the years 1906 to 1931 inclusive, and during the period 1906 to 1918 the average daily motion of plates was 3.4 inches. (No records 1914-16 as plates were lost.) Observations ceased in 1919.[1]

Photographs of forefoot were not very satisfactory.

3. The **Peyto Glacier** was investigated on August 21 and 27. To reach it, it was necessary to descend from the View Point to Peyto Lake and follow up the valley to the glacier, the forefoot of which was hidden behind a high sloping shoulder of rock.

The survey of this glacier was complete and satisfactory.

The transit was set up near the 1942 markings and the position clearly marked with yellow paint. A complete stadia traverse of the toe was made from this point and a reference line also established from which we were able to tie in the 1936 and 1939 markings which were getting faint.

A stream coming out of a cave on the right side was very swift. Its discharge would be 150 second-feet at least.

A line of six plaques was established across the glacier higher up where it was fairly level and a base line run on the right side; both ends were on solid rock and plainly marked with yellow paint. These points may be difficult to reach in a few years but there was no alternative location.

4. A complete survey was next made of the **Athabaska Glacier** which was very easily reached on August 23. It is only a short distance from the main Banff-Jasper Highway. A stadia traverse was made of the toe and several photos taken.

Owing to the width of the toe it was necessary to establish several transit points, two of which were near large boulders and clearly marked with yellow paint. The designation "D.G." for Dominion Government was used in each case and the year 1945.

We found the glacier very rough higher up but we managed to establish a base line high up

1 c. f. *C.A.J.*, xxii, 1933: 175-176.

on the right side which was also marked with yellow paint. A line of six plaques was laid across the glacier. Owing to its very hummocky nature, it was impossible to see the far edge of the glacier. We were able to complete the survey by tying this line to our original L.P. in front of the toe.

The outflow came mostly from the left side and what did not reach a lake at the right side spread over the valley in small streams over a rough bed.

So far as we know no previous surveys have been made of this glacier but photographs taken showed its outline very clearly.

5. The **Saskatchewan Glacier** was surveyed on August 24 and, since we had already made a complete survey of the Athabaska which is in the same (Columbia) icefield, it was decided to make a traverse of the forefoot only to record the recession. The road to this glacier leaves the Banff-Jasper Highway just beyond Nigel Creek, approximately 111 miles from Banff. Car can be taken to the alpine hut, 2.5 miles. It is within two miles of the glacier.

The Initial Point, Station A., of our traverse was near a large boulder which was clearly marked with yellow paint. Station B. was also a large rock, also marked with yellow paint.

The line A-B was used as a base line and a traverse run from Station A. Stadia points were taken along the toe of the glacier. Several photos were taken as well. The largest outflow was from a stream near the left side. It was very fast and rough. Towards the right side, water was all over the surface forming a lake. This had formed within the last month. It was noted that the forefoot had changed considerably in the same period.

No markings or records of any previous surveys were found.

6. The **Angel Glacier** was surveyed on August 25. It is situated at the base of Mt. Edith Cavell.

A traverse to establish the outline of the forefoot (for the purpose of measuring the recession each year) was made. Only one photo was taken on account of weather conditions. The initial point was near a large rock which was plainly marked with yellow paint. The flagstaff near the Chalet where the cars are parked was used as a backsight and all angles turned from it.

There is considerable flow from the centre of the toe and down the left side as you face the glacier.

**Bow Glacier,** which is at the head of Bow Lake, the source of the Bow River, was not investigated as it is a hanging glacier.

Balfour Glacier, at the head of Hector Lake, I was informed by Mr. J. Simpson who often takes a packtrain in there, is also a hanging glacier. As it would be quite expensive to reach this glacier, I did not consider further investigation necessary.

The survey, which is the first our Branch has conducted, brought to light several things.

The glaciers which have been retreating for many years are now far up the valleys and difficult to reach. In some cases it was impossible to establish a base line for laying plaques.

The **Yoho,** as previously mentioned, is practically a hanging glacier with no forefoot. In cases such as these we are dependent for our records elsewhere. The only available data is to be found, so far as I know, in the Canadian Alpine Journals.

For the work we were expected to undertake, it was found that a party of at least three was necessary and often four could be used to advantage.

Not having camp equipment, horses or supplies, it was necessary to return to our accommodation each night. We also found that the time for meals did not fit in with the work to be done.

For climbing glaciers we should be equipped with proper boots, also ice-axes. A light mountain transit, with collapsible tripod, is necessary. Two light collapsible level rods plainly marked for reading stadia are also necessary.

It was found that it was impossible to make discharge measurements owing to the roughness of the stream beds and swiftness of the water. These streams which may be fairly low in the early morning are impassable later in the day and often flow all over the valley. That phase of our work was abandoned, at least for this year.

It was not anticipated that the discharges from all the different glaciers would be so high. I did not figure that the time required to obtain worthwhile results was available.

Since our work was limited to glaciers near the highway, we did not reach glaciers that would necessarily give the best results. If the work is to be expanded, more than one party would be required unless the work was started earlier.

# IN MEMORIAM

## Andrew S. Sibbald

(1888 - 1945)

The Club lost a lovable gentleman and an outstanding former president in the sudden passing of Andrew S. Sibbald on May 21,1945.

He was born at Owen Sound, Ontario, and, after attending his local country school, was a student at the Owen Sound Collegiate Institute. From there he proceeded to the University of Toronto where he graduated with honors in 1911, and in the following year he obtained his Master's Degree.

He came to Regina, Saskatchewan, in 1911, and there articled as a student of law. He took his law examinations at Osgoode Hall, Toronto, and Wetmore Hall, Regina.

In 1914 he went to Saskatoon, and was admitted to the Saskatchewan bar in that year. From then until 1936, he practised law in Saskatoon, and during the last eighteen years was one of the lecturers in the Law Faculty of the University. He was made King's Counsel in 1927. He took a leading part in the affairs of his city, and for ten years was a member of its public school board. He was much in demand as a platform speaker on social and political subjects.

In 1936 he went to Regina, and entered the Provincial Government's service. In a short time he became a member of the Local Government Board, later becoming its chairman. He was a man of great integrity and ability, and of calm, dispassionate and conscientious judgment. A hard worker, he always gave his best to the particular matter that he had in hand. His illness was but of a few days, and he passed on while on duty away from home, a few minutes after presiding as chairman of the Board. He was not feeling well when he left Regina on his 250-mile journey, and had been urged to adjourn the Board's meeting, but such was his sense of duty that, rather than inconvenience those coming to the meeting, he fulfilled the Board's engagement, "Faithful unto death."

I first met him forty years ago, at Owen Sound, where I was a young practising barrister, and he a student at the Collegiate Institute. I was honored in being a judge of an oratory contest. He was one of the contestants and won the gold medal. Shortly after, he became a student at Toronto and I saw little of him until he came to Saskatchewan in 1911 when we renewed our acquaintance. In the spring of 1916 I happened to be in Saskatoon, and casually met him on the street. He told me that his health was poor and his doctor had advised him to take a vacation. I suggested to him a holiday at the Club House at Banff, and gave him a letter of introduction which he used that summer. He was captivated by the mountains, and decided to join the Club. This was a momentous decision for him, because the Club's activities were, for the next quarter of a century, his greatest source of enjoyment and insurance for good health.

When he was a boy on the farm he met with an accident, which handicapped him in walking. When I recommended the Club to him, I never dreamed that he would think of climbing. Much was my surprise therefore, when I found him at the Club camp in 1917 where he graduated. From that year on, he scarcely ever missed the annual camp. Early in the '20's he became Club Treasurer, a position which he held for many years, and finally became President for two terms, 1934-1938.

He was so enamored of the mountains that when he married in 1920, he spent his honeymoon there, and with a light silk tent and food cached at different points, he and his bride explored the valleys and passes from Moraine Lake via Consolation Pass, Vermilion Pass, and Simpson Pass,

**Andrew S. Sibbald**

**1917 - 1945**

to Sunshine camp, and then to Banff. He finished his honeymoon at Glacier House, from where he climbed Mt. Sir Donald.

It was remarkable the climbing that he accomplished, both in camp, and in pre-camp and post-camp expeditions.

He was an inspiring figure around camp, and captivated everyone with his smile. He always preserved his even disposition, never losing his temper no matter where: whether under the starry skies of Heaven on some lone vigil, involuntarily spending the night out; ensconced in his sleeping bag in his tent; on the trail with his companions laughing and joking; around the campfire with its zest and fun; or presiding at an annual meeting.

He was a charter member of the National Parks Association formed in 1923, and its Honorary Treasurer until his passing.

He always gave credit for the good health which he enjoyed to his wandering among the hills, and it was fitting that when he passed on, he should be buried at Banff, near his old friend, Arthur O. Wheeler, a founder of the Alpine Club of Canada.

He is survived by his wife, the former Katharine Eleanor Sword, and three daughters, just blossoming out into womanhood, and to them the Club's deepest sympathy is extended.

—H. E. S.

Seldom is it given a man to win so quickly or to deserve so richly the respect, esteem and affection of his associates as did Andrew Sibbald. His genial presence, his winning smile, his obvious genuineness and sincerity were irresistible and the longer and more intimate the association the greater was one's appreciation of his sterling qualities.

To have known him since the day of his arrival at his first encampment in 1917, and on down through the years as tent-mate, climbing companion and associate in the activities of many camps has been a privilege, and an education in good temper, tolerance and fairness in judging others and in sound judgment both in mountaineering and in Club affairs.

His enthusiasm for the mountains and appreciation of their beauties were contagious and inspiring and it was undoubtedly these qualities which enabled him to overcome the handicap of extreme lameness and become both a competent and safe climber and one of the Club's most dependable leaders.

Though he was singularly modest and retiring in demeanor his sound judgment and his ability to appraise correctly the essentials of a situation brought him constantly to the front in all Club affairs and activities. He also contributed much to the jollity of the campfires where his abilities and quick wit in good natured banter were much enjoyed.

Mr. Sibbald's passing is a great loss to the Club and a bereavement to each one who enjoyed the privilege of his friendship.

—F. N. W.

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## Cyril Geoffrey Wates

1884 - 1946

For the third time within the last twelve months the Club has lost a former President and it is with profound sorrow that we record the passing of a great lover of the mountains in the person of C. G. Wates, who died very suddenly at his home in Edmonton on February 2, 1946. "The Skipper," as he was affectionately known to many of his friends, had recently recovered from several months of quite serious illness and had been allowed to return to his work with the Edmonton Telephone Department, when a severe heart attack proved fatal. His death will be a great loss not only to the Alpine Club of which he was a very keen member for years, but also to amateur astronomy.

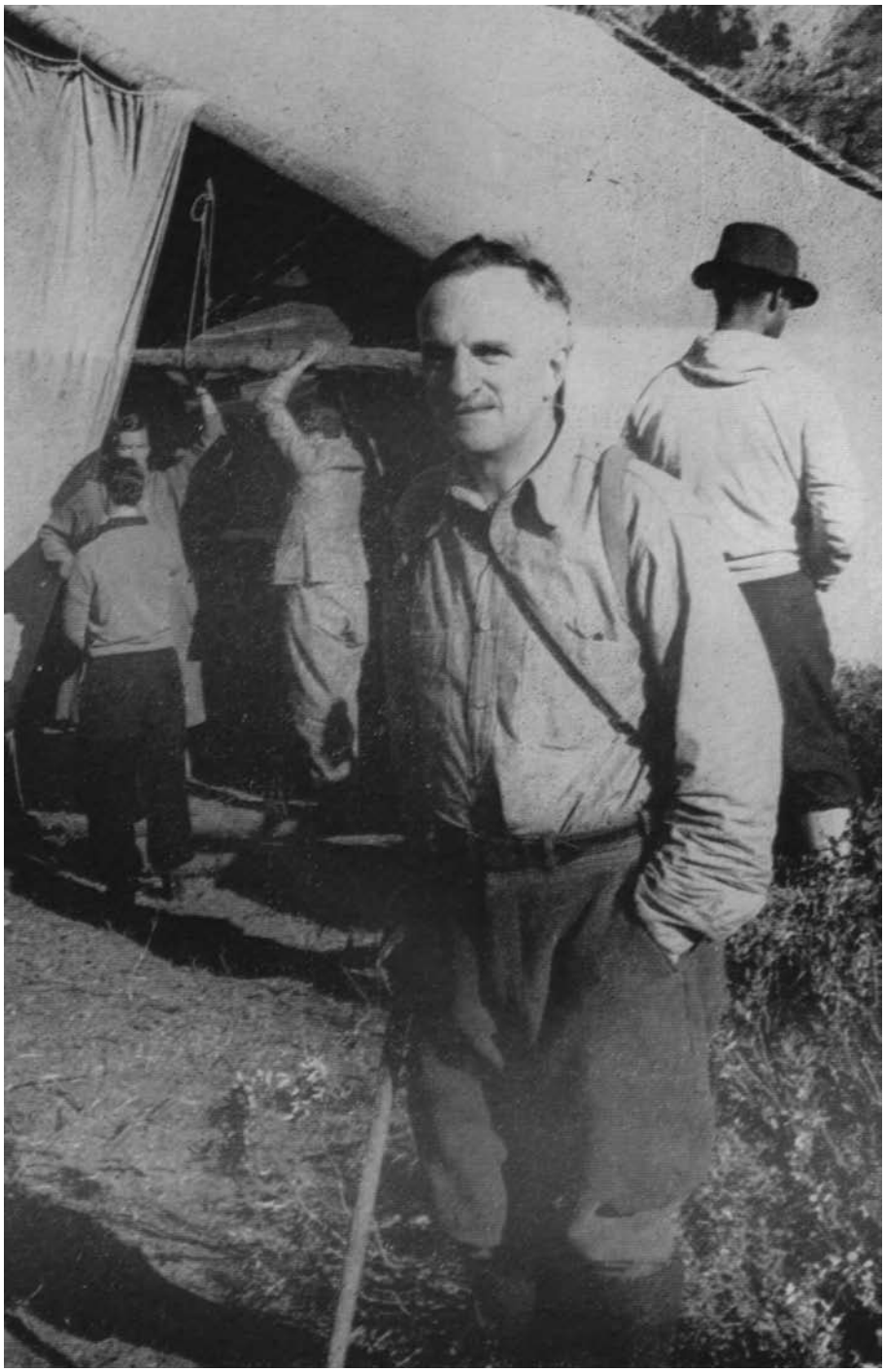
Born on July 18, 1884, in London, England, Cyril Wates did not remain there very long as his parents moved to Jamaica when he was seven years old.

He obtained his schooling at Worcester Academy in the State of Massachusetts, where he displayed exceptional interest and ability in chemistry and physics. After graduating from Worcester in 1902, he entered Harvard University and was in his senior year there when the death of his father in 1906 brought about a change in his plans, which prevented him from taking a degree. After trying his hand at a number of temporary jobs, he took up telephone work in the State of Idaho, where he held positions in the towns of Pocatello and Boise. Some of his family having meanwhile moved to Rimbey, Alberta, Cyril Wates came to join them in 1909, and shortly after joined the City of Edmonton Municipal Telephone System. An automatic telephone exchange, the first in the British Empire, had just been installed and this gave full scope to his ingenuity and inventive powers. Mr. Wates is the author of a *Handbook of Telephone Engineering,* which has been much in demand by automatic telephone exchanges all over the North American continent. Due to Edmonton's remarkable growth in the last few years, Wates had been engaged in plans for a great expansion of the telephone system. Even on the morning of the day on which he died, he had spent a long time in conference with the Superintendent discussing the working out of these projects.

Cyril Wates was a man of many outside interests and he displayed remarkable versatility. Whatever he undertook he did superlatively well. As a young man, and before his physical handicap of deafness became so pronounced, he had taken a great interest in music. For a number of years he was choir master at the old St. Paul's church in Edmonton. He also wrote many songs, composed the music for them and took part in the local musical festivals. The Club song book "Songs for Canadian Climbers" is entirely due to his initiative and has been much appreciated by club members at many a campfire. It is instructive to note how often his initials "C.G.W." appear throughout the book as being author of words or music or both.

The mention of the song book suggests another hobby, namely his literary work. Wates was the author of some exquisite short poems, which revealed a deep philosophy of life. One of the best of these poems, entitled "Climbers," appeared in the 1941 Journal in his article "Men, Mountains and Motives." This beautiful piece of writing, possibly the best he ever did, is a skilfully concealed autobiography and is his carefully reasoned answer to the oft repeated question "Why do men climb?"

His versatile pen was also put to good account in writing a number of scientific stories, one of which, entitled "The Visitation," was placed first among 360 entries and won a $250 prize offered by the magazine *Amazing Stories.* He also wrote extensively on astronomical subjects, and



**Cyril Geoffrey Wates**

**1916 - 1946**

kept up a frequent correspondence with a number of amateur astronomers in both Canada and the United States.

Amateur astronomy was another field which called forth the best that was in him. Many Edmonton residents gained their first insight into the wonders and mysteries of the "heavens above" by gazing through the nine-inch reflecting telescope which he had built and erected high on the banks of the Saskatchewan River outside his home. His inventive brain devised a most ingenious machine for grinding and polishing the mirrors used in telescopes of this type. He later built a twelve-and-one-half-inch reflecting telescope (the sixth largest in Canada) which he presented to the University of Alberta and which is now installed in a fine observatory building on the campus. This building will be a lasting memorial to his genius. For his outstanding achievements in amateur astronomy he was awarded the Chant medal by the Royal Astronomical Society in January, 1944.

His love for the mountains was far more than a hobby: it became for him, as for so many other lovers of the great hills, a master passion and one that he was always willing and anxious to share with others. After three camping trips to the Mount Robson region in 1913, '14 and '15, in which his first wife took part, he admitted that the challenge of that mighty peak changed him from a mountain lover to a mountaineer. He joined the Club in 1916, and graduated on Mt. Monarch at the Camp in Simpson Pass. During the next thirty years he attended twenty camps and climbed more than fifty peaks. He had a special love for and interest in the Tonquin Valley region in Jasper National Park and it was here that some of his best climbing and exploration was accomplished. His successful first ascent of the highest peak in the Ramparts, Mt. Geikie (10,854 feet), in 1924 was a happy culmination to three seasons of climbing in the Tonquin with his old friend Dr. Bulyea. He repeated this climb in 1931 with the Doctor and Helen Burns, and it was on this occasion that Dr. Bulyea broke his leg during the descent and Mr. Wates had to go down post haste to summon help. It was during the 1927 climbing season that the writer became actively associated with the Skipper, and together with Helen Burns, we accomplished many climbs. After the death of his first wife, Cyril Wates married Helen Burns, in February, 1944. The Club extends to her its deepest sympathy.

Cyril Wates was twice elected Western Vice-President — in 1926 and again in 1936. It was thanks largely to his drive and initiative that a club hut was built at the foot of the Fraser Glacier on Penstock Creek in 1930. This hut was named the Memorial Hut. It is now, alas, in a very bad state of repair, but plans are on foot to erect a new hut at Outpost Lake in the same region and it is hoped that the new hut will be named the "C. G. Wates Hut." It will be a most fitting- memorial to the pioneer climber of that beautiful region. In 1938 he received the great honor of being elected President of the Club for the three-year term 1938-40. It was sad that illness prevented him from taking an active part in climbing activities during his term as President, but the Club benefited by his enthusiasm and sage counsels.

His deep sense of communion with the spirit of the Great Hills is well expressed in this beautiful quotation taken from his article "Men, Mountains and Motives" which was referred to above:

"My friend is drawing near to the autumn of his life. No more for him the lonely bivouac, the splendor of the dawn on windy heights, the chip of axe on brittle ice, the drowsy hour on sunny summit. Some day the tapestry will be folded up and laid aside, but still the loom of the mountains continues to weave thread after thread. Life holds, as for all men, its disappointments and its sorrows, but the great hills weave the thread of Comfort. In these days of strife and hatred it is easy to sink into an indifferent materialism, but the mountains weave the thread of Worship. The roar of

battle echoes across the world, but the mountains weave the thread of Peace."

Truly we have lost a man of many parts, a man greatly beloved, a man of dauntless courage who overcame severe physical handicaps and one whose ready wit and cheerful smile will long be remembered. In the words of a beautiful tribute to him published in the *Edmonton Journal:* "We like to think that today his horizons are boundless and that he hears, with understanding ear, the morning stars singing together."

Or again as Hilton Brown so aptly sings in his poetic gem "Coronach for a Mountaineer":

"The night falls dark on crag and corrie
Now, where the suns of noonday shone,
Homes the last eagle from his foray;
But — there *must* be mountains where you have gone;
Hills, great hills, to be friend and foe,
Hills to comfort you, hills to cheer;
Wherever lovers of mountains go,
There as here,
Climb on, old friend, climb on!"

—E.R.G.

May I add my tribute to the unfailing kindliness, helpfulness and generosity of Mr. Cyril Wates? In December, 1943, while engaged in training the Lovat Scouts at Jasper, I was taken ill and had to be operated on at the University of Alberta Hospital, Edmonton. After the operation and before I had time to feel either lonely or irritable, Mr. Wates arrived. He did much more than arrive; he brought with him the mountains, mountains in books and mountains in pictures which soon decorated the bare hospital walls.

But most of all he brought himself, his personality, infinitely kind and whimsically humorous and withal such a fund of mountain experiences that what could any patient do but recover quickly? Daily he visited me, a stranger, and brought the air off the mountain top into that hospital atmosphere. There are not many who could find time after their work to visit someone in hospital on the other side of a large city but this action sums up the character of a mountaineer, great in every respect, one of those who, by his actions and example, strengthens our faith in our fellow-men.

— F. S. Smythe.

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## Samuel Evans Stokes Allen [1]

(1874 - 1945)

The death of S. E. S. Allen, pioneer in the Lake Louise district, on March 27, 1945, gives release to one whose brilliant mind early became clouded, who had lived in confinement for more than forty years, his only memories being of the mountains he had loved in his youth.

Born in Philadelphia on February 8, 1874, the son of Theodore M. and Elizabeth Kempton (Stokes) Allen, he graduated from Yale in 1894 and took his M.A. there in 1897. He was a member of Phi Beta Kappa.

In July, 1891, returning from the Sierra Nevada, Allen had his introduction to Canadian mountains. He visited the Illecillewaet névé Emerald Lake, and the fossil-bed on Mt. Stephen.

1 Reprinted from *A. A, J.,* 1946, with the kind permission of the Editor.

From Lake Louise he ascended a point which he named Devils Thumb. In 1892 he travelled in Europe, gaining the summit of the Matterhorn in September.

Returning to Canada in 1893, he climbed Mt. Rundle, the view of Mt. Assiniboine making a great impression on him. At Lake Louise he made two unsuccessful attempts to ascend the N. peak of Mt. Victoria, being defeated by avalanches just below the Victoria-Collier notch. After an excursion up Mt. Fairview he, with a white companion, and Indian, penetrated to a little lake in Paradise Valley (to which he gave the name Wenkchemna), on the east side of Mt. Temple, reaching 10,000 feet on the S. W. ridge of that mountain.

At Glacier, Allen and W. D. Wilcox made the first ascents of Eagle Pk. and Mt. Cheops, and, with H. P. Nichols, Allen crossed Asulkan Pass to make the second ascent of Mt. Fox.

In the summer of 1894, Allen went to Lake Louise to join a group of Yale students, arriving just after the accident in the Lefroy couloir, when L. F. Frissell was injured by a dislodged boulder. Allen ascended Mt. Piran and began a survey of the region, laying out a base-line for a distance of one mile on the railroad east of Laggan station, continuing with prismatic compass and aneroid.

A few days later, Allen, Henderson, Warrington and Wilcox crossed the east Mitre Pass to Paradise Valley. Soon afterward, Allen and Henderson established camp below Sentinel Pass. Crossing the pass on the following day, Allen again saw the peaks across Moraine Lake and gave them Indian numeral names, from One to Ten. Frissell and Wilcox then rejoined the party; they crossed Wastach and Wenkchemna Passes and saw Opabin Pass, to the top of which Allen went alone next day and named Mts. Biddle, Ringrose and Huber. With Frissell and Wilcox, in this season, Allen took part in the guideless first ascents of Mts. Aberdeen and Temple, the latter the first peak of the Canadian Rockies above 11,000 feet to be ascended.

In September, Allen completed his summer by a trip to Lake O'Hara, which he named. We also owe to him the names Oesa, Wiwaxy and Yukness. Lacking other companions, he took with him Yule Carryer, an Indian who had been a student at the University of Toronto, and who was then working for the railroad at Field. Together they reached the summit of Abbot Pass (then known as the Death Trap) from the Lake O'Hara side, being the first to attain that saddle. They then returned to the railroad and made a flying trip to Mt. Assiniboine, by way of Vermilion Pass and Cross River, coming out on Healy Creek.

With H. F. Smith, Allen returned to Mt. Assiniboine in July, 1895, by way of Banff, Healy Creek and Simpson Pass, being the first visitors to examine the mountain's S. W. face.

It was Allen's fate never to see the mountains again. His father did not encourage him, and his privately-printed map (*ca.* 1894-95) was not widely circulated. This map, now very rare, for the first time presented much of the accepted nomenclature of the Lake Louise area. [Articles by Allen appeared in *A.J.* 18, 96, 222, 397; and *App.* vii, 281.] Allen's mind failed a few years later, symptoms of dementia praecox manifesting themselves. He never knew that one of the finest of the Ten Peaks was at long last given his name. Although not a member of this Club, his pioneer efforts and achievements should be remembered.

— J. M. T.

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## Frederic King Butters[1]

(1878 - 1945)

Professor Butters was born at Minneapolis, Minn., on February 8, 1878, and died there August 1, 1945. He was unmarried. The family name was originally Butter, his ancestors coming from Scotland and settling in Woburn, Mass., prior to 1665.

Butters graduated from the University of Minnesota in 1899 with the degree of B. Sc., and took his B. A. at Harvard in 1900. He was a member of Phi Beta Kappa and Sigma Xi. He served as instructor in botany and pharmacognosy at Minnesota, 1901-10, as assistant professor, 1910-19, associate professor, 1919-34, thereafter held the position of professor of botany until his death. He was a Fellow of the Royal Geographical Society, a member of the Alpine Club of Canada (1913) and of the American Geographical Society. He joined the American Alpine Club in 1910. He was author of Trees and Shrubs of Minnesota, and had almost completed a book on ferns, on which he was an outstanding authority.

As a mountaineer, Butters introduced E. W. D. Holway to the Selkirks in 1904; Howard Palmer joined them in 1908, and thereafter this trio made history in their exploration of remote areas of the northern and southern Selkirks, although Butters was unable to take part in the final and successful assault on Mt. Sir Sandford in 1912.

Of these three, however the Swiss guides regarded Butters as the soundest and steadiest climber, his ascents covering a period of 30 years. He seems never to have visited the Alps, but in the Selkirks alone he accomplished more than 50 major climbs, including such first ascents as Cyprian Pk., Mt. Kilpatrick, Augustine Pk., Guardsman Mtn., The Footstool, Alpina Dome, Pioneer Pk., Mt. Topham, Citadel Pk., Belvedere Pk., Goldstream Pk., Mt. Redan, Austerity Mtn., Mt. Holway, and the unnamed 10,500-foot peak of the Battle Range. By 1913 he had made fifteen traverses of Asulkan Pass, eight of Donkin Pass and four crossings of Illecillewaet névé, all guideless.

For the *Canadian Alpine Journal* he wrote "The Flora of the Glacier District" (xxi, 139) and for Palmer's *Selkirk Range,* the appendix dealing with botany. He made a relief of the Selkirk Range from Rogers Pk. to Grand Mtn., which has been secured for the American Alpine Club.

— J.M.T.

## H. F. J. Lambart

1880 - 1946

Those who had the privilege of friendship with Fred Lambart realize the extent of his enthusiasm for the alpine areas of Canada. Coupled with a keen appreciation of their beauty and recreational value there was also understanding of the opportunity for scientific research.

As a contemporary of the Canadian Alpine Club's first president in the development of photo-topography and later aerial photography for mapping purposes, he made a substantial contribution in topographical surveys, undertaken by the Dominion Government under whose auspices he worked from 1905 until his retirement in 1933, a period which included seven years in charge of the Yukon-Alaska Boundary demarcation.

It was natural with such affiliations that Fred Lambart should have become associated with the Alpine Club of Canada, of which he was Vice-President from 1924 to 1926.

In connection with his professional work, and as a member of the Club he made many notable ascents including that of Mt. Robson, and was also an outstanding member of the joint Canadian-United States party which did such valuable work in exploration and mountaineering in

1 Reprinted from *A. A. J.,* 1946, with the kind permission of the Editor.

**H. F. J. Lambart**

**1910 - 1946**

the Mt. St. Elias Range, including the only ascent of Mt. Logan, the highest mountain in Canadian territory.

His later years made heavy demands upon the courage and confidence which had marked his career, as despite a magnificent physique his demise was preceded by a lengthy illness, in addition to which during the war he lost his two sons, Flying Officer F. A. H. Lambart, R.A.F., and Capt. E. H. W. Lambart, R.C.A.

Surviving are two daughters, Miss Hyacinthe Lambart of the British Aviation Company and Miss Evelyn Lambart of the National Film Board, and a sister Miss Caroline Lambart at home.

Mr. Lambart was a fellow of the Royal Geographic Society and a member of many kindred organizations connected with his profession.

— W. W. F.

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## John Preston Forde

1873 - 1946

With the passing of John Preston Forde, one of the first members of the Club (1908) and Vice-President (1912-1916), the Club has lost an enthusiastic and skilled mountaineer, whose professional work throughout the greater period of his life kept him in close contact with Canada's mountain heritage. There are many who will recall his tall athletic figure, and the great delight he took in planning and overcoming the difficulties of a climb requiring unusual skill.

Like A. O. Wheeler, a founder of the Club and the outstanding figure of Canadian mountaineering, John Preston Forde came from an old Irish family. He was born in Hollywood, County Down, on March 8, 1873, and articled to a well-known firm of consulting engineers in Belfast. Seized, however, in his youth with that spirit of adventure which marked his entire career he left the old land for Canada, arriving in Vancouver, then a comparatively small town, in March, 1891, and became assistant to the late Major Peter Burnet, Dominion and Provincial Land Surveyor, whose second daughter, Marion Caroline, he married in June, 1898. Subsequently J. P. Forde occupied a series of important and congenial positions, in all instances his headquarters being in the mountains. Eventually he became Chief Engineer in charge of Public Works in British Columbia, under the jurisdiction of the Dominion Government, his later headquarters being in Vancouver.

Throughout his career love of adventure was associated with those qualities of humor and courage, through which the best is obtained in either work or recreation.

He is survived by his wife, two sons and one daughter, to whom Club members extend their sympathy.

— W. W. P.

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## Lennox Hubbard Lindsay

1876 - 1945

In the death of Lennox Hubbard Lindsay at Musketaquid Farm, Concord, Massachusetts, on December 30,1945, in his seventieth year, the American Alpine Club and the Alpine Club of Canada lost one of their most enthusiastic active members of many years standing, whose presence in camp, on the trail and on the mountainside always was a matter of genuine satisfaction to all his companions; for, although Lennox was of rather a quiet retiring disposition, his presence was felt and appreciated wherever he went.

**John Preston Forde**

**1907 - 1946**

This enviable quality was attested to by one of his mountaineering companions who recently said, "I always felt an uplift and a genuine satisfaction whenever I had a visit with Lindsay for his cheerful attitude seemed to bring out the best in every situation," and it was thus that members of the Alpine fraternity knew him.

I treasure the recollection of many delightful scrambles and interesting climbs with Lennox during our years at the Alpine camp and in our ranch country, and those of us who were with him on the sad relief expedition to Mount Eon for the recovery of Doctor Winthrop E. Stone's body will always remember his efficient work in helping to bring that dangerous task to a safe conclusion without mishap. And I shall always feel grateful for his staunch support at a critical time on our ascent of the peak which, in calm moment before setting out, we all had agreed must be climbed so that we might learn exactly what had caused the accident.

After carefully following Doctor and Mrs. Stone's trail by the aid of ice-axe and hobnail scratches on the rocks, we finally reached the ten-thousand-foot-level and stopped to rest and have a second breakfast, but a moment later one of the guides, with the aid of his glasses, discovered Doctor Stone's body on our level and about five hundred yards away. This discovery seemed to unnerve our party for a time; in the presence of disaster food was forgotten and there was insistence that we should all go over at once and not attempt this dangerous climb any further, but to this I called a halt and insisted we must carry out our original plan — go to the summit, build a cairn for Doctor Stone, leave a record, and then descend along the line of the fall. This program met with immediate and stubborn resistance until Lennox's quiet "But we all agreed to go to the summit" broke the spell and discipline was restored to our ropes.

This incident eloquently displayed a quiet courage that spoke out in time of stress and in the face of tragically demonstrated danger.

Born August 15, 1876, at Heidelberg, Germany, Lindsay's early years of schooling were mostly spent in Massachusetts and ended in his graduation at the Boston University Law School after which he practised law in Boston for ten years, but he finally succumbed to the call of the west and for six years he engaged in farming and ranching in Alberta which was followed by seven years as manager of the Pacific Mills Paper Company at Ocean Falls, British Columbia.

Returning east in 1926, he soon took a leading part in the community activities and for some years taught in the Fenn Private School for Boys, while during the World he rounded out his active and useful career as Chairman of the Salvage Committee and the Community Fund.

The world was made richer and better by the advent and sojourn among us of our good and valued friend, Lennox Hubbard Lindsay.

—A. H. MacC.

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## Franklyn George Webber

1873 - 1945

Franklyn George Webber, a member of the Club since 1908, died at Vancouver on December 31, 1945.

Born at Redruth, Cornwall, England, Mr. Webber came to Canada in 1887. He was associated with the Bell Telephone Company for fifty years before retiring from the office of secretary in 1942. During this long service he held positions in Toronto, Calgary, Regina and Montreal.

The sympathy of the Club is extended to his daughter, Alison, and his son-in-law, Maj. H. T. J. Monks, R.C.A.M.C., with whom he resided.

—L.V.W.

# REVIEWS

## The Canadian Alpine Journal, Vol. VII, 1916

price fifty cents, 128 pages, 40 illustrations, three sketch maps;
South Fork of Salmon River, South Fork of Horsethief Creek, both in the Purcell Range,
and Mt. Alexander Mackenzie in the Northern Rockies.

Whatever the extent or nature of one's interest in mountains, the possible enjoyment of it will be increased by backing it up with all the mountain literature which one can afford. On the score of getting much for little money, the earlier issues of the Canadian Alpine Journal are good value.

Consider the 1916 issue. At that time the Club had about 90 members in the Forces in World War I, yet still possessed the vigor to hold its annual camp; in addition, ambitious things were being attempted by private parties, for the Rockies and Selkirks still bristled with unclimbed peaks—not that this is the main merit in an account of climbing. But even the non-climbing reader can always be roused by stories of untrodden peaks, as witness the wide popularity of "The White Tower."

Mt. Tetragona in the Torngat Mountains of Labrador was climbed by the late Dr. A. P. Coleman and an Eskimo. There is no such thing as tree-line in these mountains, trees not existing there. For fuel one burned *Phyllodoce tetragona,* White Heather. The wild strange land is well described. Dr. Coleman, geologist and author of "Ice Ages, Past and Present," was a popular figure at the Club camps where he made the rudiments of geology readily understood—and a bit of such knowledge aids one often in climbing.

Accounts of two expeditions to Mt. Moloch—wherein one misinformed party spent three days avoiding a graded road—will recall to some readers that it was up the north fork of the Illecillewaet River that Walter Moberly made the first recorded exploration of the Selkirk Range. Besides Mts. Sorcerer and Holway, there is still the challenge of Fang Rock in this area.

Of special interest in view of the site of the Club's 1946 camp, is an article on climbs and exploration in the Purcell Range by W. E. Stone who later lost his life in the very moment of success at the summit of Mt. Eon.[1]

Possibly Mary L. Jobe sent her article in late, thus accounting for the lack of due recognition which it received by being placed in the "Miscellaneous Section." She should not be forgotten for her persistent efforts to explore and climb Mt. Alexander Mackenzie, loftiest and most important peak in the Rockies north of Mt. Robson.

Turning the pages of this Journal one understands better the history of the Club, finding the names of many who have served the Club, among them Major Stanley I. Jones (president-elect, killed in World War I); Dr. F. C. Bell (then Major, now Colonel); Major W. W. Foster (now Major-General); Lieut.-Col. C. H. Mitchell; Dr. J. W. A. Hickson, and Arthur O. Wheeler. The "Goulds Dome," on which Mr. Wheeler had unusual experiences in an electrical storm and saw unusual sights, is now Tornado Mountain.[2]

This Journal records the first ascent of Mt. Edith Cavell and an expedition to Mt. Longstaff, both led by E. W. D. Holway who was such a prominent figure in exploration and climbing in the Selkirks.

—W. A. D. M.

1 *C.A.J.*, Vol. xii. p. 14.

2 See P. W. Godsal's advocacy of earlier name, *C.A.J.*, Vol. xii, p. 185

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## Switzerland and the English

by Arnold Lunn, 258 pp., 17 illustrations. Eyre & Spottswoode, London, 1944. Price 15/-.

For over twenty years Arnold Lunn has been an industrious writer, having in that period published some thirty-one books. Not all of these of course have been on mountaineering and skiing subjects as many of them have arisen from his excursions into the realm of religion, which in 1934 led him into the Catholic church, of which he has since become a prominent writer. To mountaineering and skiing enthusiasts, however, he is best known for his activities in connection with British skiing and his work in the establishment of International Championship meets in Switzerland, which he has dealt with fully in numerous works, particularly his autobiography, *Come What May.*

Due to the founding of the Lunn Travel Agency by his father, it was his good fortune, from the age of five, to spend his summers in Switzerland, thereby laying the foundation for his lifelong interest in that country and in its mountains.

In his introduction to the book under review, Lunn remarks that "Switzerland is the only European country which has never fought as our ally or as our enemy and with whom our relations have never been embittered by enmity, poisoned by alliances or undermined by economic rivalry" and he adds "The special character of our relations with Switzerland is due neither to religious, political nor economic causes, but to the influence which the British have exercised in the discovery of the cultural, aesthetic and sporting possibilities of the mountain ranges of Switzerland which may be said to have begun in the sixties of the eighteenth century, when the Treaty of Paris has put an end to the Seven Years War and the way to the continent opened to Britons."

Man has not always regarded the mountains as beautiful and in chapters two and three Lunn traces the development of the feeling for nature, from the time of the Greeks to Ruskin, the great exponent of Alpine beauty. Chapters four and five are devoted to the Englishman in Switzerland in the eighteenth and nineteenth centuries while in chapter six the influence of the Alps on the poets and painters of the Romantic Movement is dealt with, culminating in a chapter on Ruskin and his work.

We then come to the rise of mountaineering as a sport, in which the English took such a prominent part, and to the founding of the Alpine Club in 1857. In his chapter "Portrait of a Club" Lunn traces its history from its inception and gives us many delightful sidelights on its early policy and organization. It is not generally known that the great Mummery was once blackballed due, it is said, to the fact that he was in the tanning business, but later by some juggling with the ballot box on the part of Coolidge, who was then secretary, he got in. While Lunn is not always in sympathy with the policies of the club, particularly in regard to skiing, he points out that it will always be regarded as "A Club which was certainly national and never nationalistic, and which from the first had regarded itself as the trustee for something more important than the interests of its members, the traditions and repute of the noblest of all conceivable sports."

Then follows a chapter on the British contribution to mountaineering literature. Much criticism has been levelled at the style of the writings of mountaineers, which are, admittedly, often dull and uninspired. It is difficult to transmit the glow and vigor of a great climb to paper and Winthrop Young has truly remarked in his *On High Hills,* "All that remains of a climb is seldom more than a sediment of small incidents. ... In our less exalted valley humor we find them as lees in our glass of memory and stir them, diluted, into a tale. But our vivid and day-long consciousness of the mountain, of each other and of the drama which we and the mountain played

out at length together, cannot be faithfully reproduced." There are few mountaineers, however, but will acknowledge their debt to the long list of Englishmen who have committed to paper their epic struggles with the great mountains of the world from the Alps to the Himalayas.

After a reference to the Alps in winter, the history of British skiing and ski competitions is developed at length, and here, of course, no one is on surer ground than Arnold Lunn, who has been called the "father of British skiing" and the inventor of the slalom and downhill races. In this field Lunn has had a somewhat hectic career which ended with the withdrawal of the English teams from the International competitions, shortly before the outbreak of war, due to the Nazi influence on the sport becoming intolerable.

One hears a great deal about the difference between mountaineers and skiers and it is only logical that there should be a difference since the object of the mountaineer is to ascend peaks and the object of the ski enthusiast is to attain speed, the fact that speed is best attained on the mountainside, accounting for his disturbing presence in the mountaineer's domain. Skiing as a competitive sport demands an audience, while mountaineers generally perform their work far from crowds and with only a few companions to witness their labors. All this Lunn discusses in an entertaining manner which can be read with profit by both mountaineers and skiers.

Lunn believes that footnotes and reference numerals disfigure a page and are an irritation to the reader, so he has dispensed with them in this volume. Such footnotes as require reading along with the text he has incorporated in the text and those that need not be read at the same time as the text he has relegated to the end of the volume. His references are also incorporated at the end under a system which makes their identification easy. The seventeen illustrations of the book refer mainly to art in the Alps.

Altogether this is an interesting and informative book in Mr. Lunn's best style and while perhaps one may not always agree with his conclusions regarding mountaineering and skiing, he covers in a comprehensive manner the somewhat vast subject evoked by the title.

— F. H. S.

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## The Rocky Mountains

by Wallace W. Atwood, published by the Vanguard Press, New York.
324 pages, two maps, 32 illustrations.

The title of this book disguises its main intent—a subject which most people look on as being as dry as the fossil remains of the oldest dinosaur yet dug out of the Bad Lands, or as fearsome as the same beast if it suddenly came to life. But there is nothing dragon-like about the subject as the author handles it.

The opening chapter deals with the approach to, and ascent of, a mountain over 14,000 feet high. Having thus infiltrated into the company of those who look upon a mountain ascent as the only respectable objective for a mountaineer (although Sir Martin Conway defined a mountaineer as a person "interested in mountains"), he proceeds to reveal that his main object is to dramatize in simple language, "the titanic theme," the life history of the Rockies.

There is a good deal, more or less in narrative form, about the art of camping and trail travel. "It is a mistake to go through or over the mountains too rapidly," he believes, that life in the mountains may be made "one full of inspirations and excitement for the lovers of the great world where there are no windows except those torn in the clouds and no doors to shut on the wilderness."

Just as one who is partly color-blind misses much of the beauty of color, so does the person with a scanty understanding of mountains miss many sources of enjoyment among them.

Few people lack some appreciation of the dramatic. Actually, very little, if any, technical knowledge is needed to recognize and appreciate to some extent the tremendous drama of the building of the Rockies as displayed on any mountain face, or such a spectacular event as the coming, the full development, and the passing of the last Ice Age — if indeed we are not living merely in a period of diminished activity.

"The glaciers in the Rocky Mountains of Canada are far more spectacular than those remaining in the United States," Mr. Atwood observes, mentioning that in Glacier National Park in the United States "many are disappointed at not finding more glaciers. What are left are but tiny remnants . . ." He speaks highly of Canadian mountain parks from every point of interest.

Indians, ranchmen, farmers and tourists receive some attention. There are a number of old-time cowboy songs, and many colorful tales of mining.

In addition to the eight drawings showing geological cross-sections of the Rockies, each chapter's beginning and end is marked by an attractive sketch.

This is the third volume in the American Mountain Series edited by Roderick Peattie.

— W. A. D. M.

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## The White Tower

by James Ramsay Ullman. Lippincott, Philadelphia, 1945. 479 pages, price $3.00.

The author of *High Conquest*[1] has produced a remarkable book which is a combination of a novel and a scenario of mountaineering. For a mountaineer he has had the unusual, perhaps the unique, experience of writing a best seller, almost 600,000 copies having been printed.

Martin Ordway, an American bomber pilot, is forced down from a plane, containing the bodies of three companions, at Kandermatt, a Swiss mountain resort where he had summered some years before the war, and where he meets again Carla Dehn to whom he had been previously attracted. In the meantime she had married an Austrian, from whom she had fled, on realizing what his Nazi connections meant. Making a quick recovery from the accident, he organizes a climbing party with a Swiss guide, Bennen, whose father had perished years before in an attempt to conquer the White Tower, an imaginary peak, that dominates the region, and which on the wrapper bears a slight resemblance to the Matterhorn. Included in the party are, of course, Carla, not an expert climber, a middle-aged English geologist, who had been with British climbers on Mt. Everest, a dilettante Frenchman, and a Nazi, Hein, the most experienced and daring of the amateurs, who was spending a period of leave at Kandermatt; a strange assortment, and stranger still is it, that these six (including the guide) should have been regarded as a stronger combination than a party of three or four. The peak is regarded as almost impossible from the Kandermatt side.

Neither the geologist nor the Frenchman is able to reach the highest camp. The latter succumbs at a camp on the way, presumably overcome by an avalanche when alone and in an unsteady condition owing to excessive consumption of brandy. The German, who left the highest camp secretly in order to capture the peak, and prove his racial superiority, almost reaches the summit, when his arrogant self-sufficiency causes his death in sight of Ordway, who followed him up and *might* have helped him. Ordway is within a few hundred feet of the summit, when

1 Reviewed in *C.A.J.*, Vol. xxvlii. No. 1.

thoroughly exhausted and unable to go farther, he is rescued by Bennen, who was not with him and Hein at the last camp. He and Carla get back safely to Kandermatt, he to continue the fighting, and hoping to try the peak again and have a later reunion with his companion.

The literary quality of this book is on a high level; the descriptions of mountain scenery and of the climbing are inspiring and calculated to arouse enthusiasm, although, I think, unnecessarily drawn out. The romantic element which pervades the book has probably accounted for part of the astonishing response of the public, who could hardly be expected to understand all the technical terms and the references to the implements used by the climbers. Mountaineers will probably react to the book with mixed feelings.

Its improbabilities are striking. Is it in order to exalt American enterprise, which does not require the puff, that Ordway is made the prime mover in attacking a mountain which had long been a challenge to European climbers better than himself? Of course there is no such unclimbed peak in Switzerland as the Weissturm. The unconventional love-making between Ordway and Carla will appear to some readers as unreal under the physical conditions that prevail. The insights into national psychologies are rather stereotyped, and, to this extent, superficial. Will the crossing of a bergschrund by jumping over it upwards appear realistic to a mountaineer?

*The White Tower* with its fine prose and skilful blending of the actual with the unattainable is undoubtedly a literary feat. The range of emotions produced by the experiences of mountaineering is admirably portrayed. The final impression it produces is one of futility.

— J.W.A.H.

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## Outdoors with a Camera in Canada

by Dan McCowan; published by MacMillan Company of Canada Ltd., Toronto;
102 pages, 48 illustrations. Price $2.00.

This latest book by Mr. McCowan is likely to prove popular, the format chosen being that of a full-page illustration facing a page of text descriptive of it. This is most effective as the reader is able to refer so readily to text or picture while studying one or other.

Probably only an experienced photographer of wild life can fully appreciate the amount of patient effort represented in securing this collection of subjects. Nearly all the subjects have some association with the western mountains in which the author is so well known. Descriptions are in his usual readable style, and pass on to the reader the results of personal observation. A fair number of mountain flowers is included in the wide range of subjects which the book includes"

—W.A.D.M.

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## Last Mountains

by Robert O. Case and Victoria Case; published by Doubleday, Doran & Co., Inc.,
Garden City, New York; 236 pages, 16 illustrations. Price $2.75.

The title of this book is obscure until one understands that the Cascades were the last range of mountains to be crossed by the overland immigrants to what is now Washington State.

The first page of the opening chapter on early exploration of the northwest coast of North America warns the discriminating reader not to expect freedom from marked historical bias. Captain George Vancouver's mission to Nootka is presented as proof of his being a "buccaneer" at

heart, whereas the historical record simply is that he went under the terms of a convention signed with Spain two years before, the Spanish Quadra having been sent by the Viceroy of Mexico for the same purpose. At the present stage in the relations of the British Empire and the United States it should hardly be necessary to cling to the antiquated outlook that there was something blackly "imperialistic" about the expansion methods of one that did not apply to the other.

This is in marked contrast to the authors' discernment in dealing with the human weaknesses which led to extortionate charges for passage through the gorge of the Columbia and the fraudulent deals in timber lands when the value of the Cascades forests was realized. It is interesting to note that the chapter "Pirates of the Gorge" includes the Bonneville Dam as possibly being the beginning of the final "squeeze."

The authors try to forestall criticism by admission that "they are conscious of faulty perspective due to perhaps too intimate contact with the magnificent barrier" of the Cascades.

Their local enthusiasm leads them to claims such as "the world's greatest forests." We find Mt. Rainier, 14,404 feet, claimed as the third highest in North America and the continent's "most massive individual mountain," though actually greatly dwarfed in bulk by Mt. Logan. Rainier's rating as to height apparently quite leaves out of the reckoning — to mention some — such Mexican peaks as Popocatepetl, 17,700 feet, or McKinley, Logan, St. Elias, Wood, Fair-weather, and Walsh, ranging from 14,900 to over 20,000 feet.

Seemingly in support of the belief that winter ascents prove Mt. Hood to be one of "the most perilous on the globe," a tragic account is related which illustrates merely an appalling lack of responsibility for each other's welfare on the part of most members of the party — so much so that one member of the party was not even missed until next morning. We are told that during the last mile of a severe storm "each chose his own path."

Not all meteorologists will agree that the Cascades "completely dominate the climate, flora and fauna of the Pacific slope."

The chapters dealing with the passage of the "Last Mountains" by the early immigrants are graphically told and form one of the best parts of the book.

Pew peaks are mentioned other than the volcanic cones which form such notable features of the United States section of the range — the authors use the wholly arbitrary boundary of the Fraser Canyon, but this is not warranted by the geological history of the mountains, the British Columbia Coast Range being essentially a part, or rather the larger and more alpine part.

The legend of "The Bridge of the Gods" and other Indian myths are told entertainingly, as well as some "unnatural history" of white men.

The book frankly seeks to interest the stranger in skiing, climbing, hunting, trapping, fishing, swimming, riding and hiking in the mountains the authors love so well. Opportunities for industrialists are sketched. Scenic attractions along the roads are not neglected, and for the holiday-maker the Portland Rose Festival and Pendleton Roundup are richly-worded chapters. As story-tellers the authors are at their best in relating the great gold-strike at Whiskey Gulch and how the first preacher came to the roaring mining camp.

Altogether the book succeeds excellently in linking past and present inhabitants with the mountains culturally, economically and aesthetically, and to readers who do not know the favored Pacific coast it will indeed appear colored with romance symbolized by one or more of the shapely snow peaks which dominate most skyline views.

Illustrations are of professional quality.

—W. A. D. M.

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## Manual of Ski Mountaineering

edited by David R. Brower for the National Ski Association of America,
published by University of California Press, Berkeley, California.
Two illustrations and 24 figures, 200 pages. Price $2.00.

The all-round excellence of this revised Manual will commend it to mountaineers as well as ski-mountaineers, for it recognizes that very often the skis must be discarded for parts of ascents; in addition to ski-climbing technique the convenient little volume treats with ordinary climbing on ice, snow and rock. The text is concise, clearly expressed, and happily avoids the occasional bias which is_ apt to creep in when authorship is individual. The editorial committee includes Lewis F. Clark, Alex Hildebrand, Joel H. Hildebrand, Richard M. Leonard, Einar Nilsson and Bestor Robinson.

The diagrams illustrating climbing, knots, etc., are very neat and clear, and of a quality rarely met with in mountaineering textbooks. Figures 22 and 23 compress into small space the many ways in which the ice-axe is used in ascent and descent.

It is most gratifying to find at last a North American textbook which make use of Gerald Seligman's splendid work *Snow Structure and Ski Fields* in explaining how and why snow behaves as it does in the various forms which make it safe or dangerous for climbers. The *Manual* does not confuse wind crust and wind slab, a most important distinction for the sake of safety.

It is also gratifying to find that what the Eskimos knew generations ago—do not rub frostbite—is here insisted upon. The *Manual* gives the thoroughly modern treatment. In sharp contrast to a contemporaneous book on skiing (which actually advocates giving alcoholic drink to a person awaiting rescue in a crevasse), it is stated emphatically, "the inflexible rule of ski-mountaineering is that alcohol should never be drunk during or immediately previous to exposure to cold," because it upsets the body's attempts to conserve heat, and so causes rapid loss of heat through the skin.

Various chapters deal most capably with equipment, waxing skis, food and cooking, technique of travel, various forms of shelter from snow caves to tents, camping, first aid, compass and map, as well as snow, ice and rock climbing.

The National Ski Association has also set up a ski-mountaineering test as a standard of efficiency which it believes one ought to attain before going into really mountainous country on skis.

The time is almost here when the "complete mountaineer" will be only the climber who has_ added to the older climbing technique the ability to ski safely at alpine heights. The rate at which ski-mountaineers are increasing in the climbers' clubs justifies the suggestion that the clubs might be well advised to do all in their power to encourage their skiers to qualify for the ski-mountaineering test. It is a comprehensive test, and well designed to promote a standard of efficiency which would tend to reduce the excessive number of accidents in ski-mountaineering, and also contribute to better mountaineering.

— W. A. D. M.

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## Skiing for the Millions

by Frank Harper; published by Longmans Green & Co., Toronto and New York;
243 pages, 32 illustrations, 16 diagrams. Price $3.00.

Surely mountaineers will gently chide the author for claiming that skiing is the "only sport boasting more participants than spectators," and will they agree that climbing is the most dangerous of all sports ?

One may easily rate this as the most readable skiing book which makes any claim to being a text-book as well. The technical description of the more important skiing turns, etc., is concise clear and, as the author is an enthusiastic ski-tourer and ski-mountaineer, one finds without surprise that he restores the telemark turn to its rightful importance (although the illustration shows a skier with the forward leg poked out stiffly instead of bent deeply).

He recognizes, too, that the once acclaimed deep Arlberg crouch is unsuited for an habitual downhill running position. He also reminds advocates of the "Parallel School" that their method is unsuitable for alpine skiing under some snow conditions.

"Most mountaineers make good skiers," he asserts, and ski-mountaineers will agree when he declares that they know "a supreme happiness which is denied to most."

But one wonders why on page 187 he recommends the inferior, out-dated overhand knot for the second man on the rope, but on page 196 rightly enough favors the modern and superior butterfly knot.

No warning is given beginners that modern harness with heavy downpull causes most of the broken legs in skiing accidents — hundreds of X-Rays showing practically the identical twisting fracture.

"America's most mistaken idea about skiing," is Mr. Harper's mildest condemnation of ski tows. "Downhill only" isn't skiing in his opinion, and does not make champions in competitive skiing, if only because it fails to develop stamina and knowledge of snowcraft.

Under "Snowcraft" one finds an unfortunate confusion of terms, conditions and causes under the term of "the breakable crust of windswept snow." Wind slab seems to be meant. This dangerous formation occurs more or less in the lee, while wind crust forms on windward slopes and rarely offers any avalanche risk because it is scarcely possible for it to develop the hollows beneath, which result in wind slab being so unstable. The snowcraftsman should have a clear conception of the distinctions, which are set forth fully in *Snow Structure and Ski Fields,* by G. Seligman, the greatest book in the language on snowcraft.

Surely the author expresses no more than his hope when he writes of women's ski clothes: "Beautiful girls like the simplicity of classic dress. In skiing, they know, the most noticeable beauty is expressed by the grace of their motions — for a good skiier is always beautiful." If Zdarsky were still alive he would still be opposing clothing "calling attention to the upper part of the female body, for it distracts the men from skiing."

A graphic chapter summarizes Finnish tactics against the Russians at Suomussalmi where a thousand skiers wiped out a Russian division, and the Russians' eventual application of the lesson on a huge scale against both Finns and Germans.

Dealing with skiing fitness, Mr. Harper insists that you cannot have it as well as a pack of cigarettes a day, and is even more emphatic about hard liquor. But on the subject of administering whisky to a casualty he bolsters the popular error that it aids against frostbite, ignoring that the

final effect is reduction of body temperature.

Even Arnold Lunn does not write with more fervor of skiing at its best, which is ski-touring and ski-mountaineering, than does Mr. Harper who urges the building of many adequate, but not elaborate shelters in the mountains of North America to make alpine ski-touring widely popular. In this he deserves the support of the climbing clubs, not only to widen the possible activities of their members, but because others who will be attracted to the mountains may become climbers.

While the size of the book precludes covering the whole field of skiing and climbing technique, one feels that the section on rescue from crevasses ought to mention the necessity of a ski stick, or ice-axe shaft being placed along the lip of the crevasse to prevent the rope cutting into the snow while the victim is being hoisted.

It is announced that Mr. Harper is writing the history of the Tenth Mountain Division of the United States Army.

— W. A. D. M.

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## The Purcell Range of British Columbia

by J. Monroe Thorington. 150 pages, with 79 illustrations and 9 maps.
New York: The American Alpine Club, 1946. $2.50.
Members of the Club may purchase copies from
E. C. Brooks, 3592 Quesnelle Drive, Vancouver, B.C.

This range has notably a character of its own, due in part to the Sleeping Beauty charm of the upper Columbia valley where time seems to stand still. Beside the clear waters of Lake Windermere a giant tree is still pointed to as showing the deep burn of David Thompson's first campfire, lit in 1807. In part it is due to ghost town flavors. The miners came and went; their abandoned trails zigzag up to mouldering shacks now suffering the ultimate befoulment of the porcupine. Another ingredient is the complexity of the topography. Its valleys curl in upon one another like a closed hand and from its belvederes — Mt. Nelson, for example, named as the news of Trafalgar came in — you get no explanatory view showing you which joins up with which.

Dr. Thorington's monograph does justice to these orographical problems — for the elucidation of so many of which his own explorations are responsible. His four seasons here with Conrad Kain — most "romantic and attaching"[1] of the greater mountaineers, on whom you must read *Where the Clouds Can Go* — have contributed greatly to the recondite investigations, and the narrative, while outlining the history from its beginnings, is chiefly a modest, engaging day-to-day account of his journeys, from a seeing eye which has remarkably good luck with wild life. Going into the Bugaboo, for example, it saw:

"On a rise, brown grass-snakes by the hundred were sunning themselves on flat plates of rock and slithering off in the underbrush when they sensed the vibration of our footsteps. A young black-tail buck with velvety horns stood in the burned timber. Further on, in a glade of emerald leaves, a brown mother-bear with a coal-black cub played in the dappled patches of sunlight, rushing into the thicket on catching sight of us, their pads leaving broad depressions in the mud."

Will the Alpine Club see as much, I wonder?

The author succeeds very well in catching the feeling of mountain memories. On the last day of his last visit:

1 See "More of Canada" by Dorothy Filley, *Fell & Rock Climbing Club Journal,* x, 78.

"Conrad and I climbed to the low glacial pass in the watershed south of us. But fog and snow squalls came down, and we sat on a patch of shale listening to roaring streams in the Howser basin, with all landmarks blotted out. It was tantalizing, for we would never be there again.

"To say we saw nothing would be a mistake. In the very top of the pass there was a blue, ice-covered lakelet. A bear had come that way, neatly dodging a crevasse, and cautiously patting the ice from the shore outward until it was broken and he could slake his thirst. Close behind, were the tracks of a wolverine. Their trails went over the hill into the mist, soon to be blotted out by falling snow. There was not a sign of the animals themselves, not a sound save the plaintive chirp of a finch that followed us, and the distant rushing of water."

Since 1933, as Dr. Thorington remarks, trails have become more difficult in the region. You must not expect to "drive a car far up the valley of Horsethief and Toby Creeks to within a day's walk of all climbs." The abandoned Starbird ranch in one, and Jackpine in the other, will be about as far as wheels will get. Even going up to the "Paradice Mine" — the highest point to which a motor road mounts and a most convenient entry line from Invermere for a party before or after the Alpine Camp — may need more than a little work on deadfalls. This makes the region the more tantalizing. Dr. Thorington's chapters hold out many solid promises of reward to those who can penetrate beyond tree line. His eighty alluring illustrations — culminating fittingly in those of the Bugaboo group of Spires — will make many climbers' minds swell with high resolve. So a word of warning is in place. Careful study, to which Dr. Thorington's work is the key, may reveal ways of reaching peaks without a packtrain well provided with axe men. But to approach most of them, apart from the Bugaboo, that is what is needed.

— I. A. R.

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# ALPINE NOTES

## Dunn Peak

The fourth and fifth ascents of Dunn Peak (ca. 8,650 feet), situated 60 miles north of Kamloops and 10 miles northeast of Chu Chua station (Canadian National Railways) on the North Thompson River, were made in 1945. The second and third ascents had been made in the late 30's by climbers from Kamloops including V. C. Brink, J. D. Gregson, and other members of the Kamloops Outdoor Club; the first ascent was recorded only by a ten cent piece found on the summit by the first Kamloops party.

In May, 1945, Charles Ney, Jack Rattenbury, and Bill Mathews travelled on foot and skis from Chu Chua by way of the Windpass mine and Baldie Mountain forest lookout to the southeast ridge of Dunn, from which point Ney and Mathews climbed on foot to the summit. Snow over much of the distance to the peak was deep and sodden, and the mountain could not have been reached without the aid of skis. The round trip to Dunn Peak from Vancouver required 5% days.

In July, 1945, Nelly Fraser, Elizabeth Thorneycroft, and Jane Lunson climbed the peak on foot following the same route as the earlier party. Equipment was carried by packhorse to a point 1 mile east of Baldie Mountain lookout and a fly camp established near the base of Dunn Peak.

In both expeditions Mr. M. Fennell of Chu Chua provided welcome assistance.

— W.H.M.

## First South to North Traverse of Mt. Athabaska

A novel and interesting route was worked out on Mt. Athabaska (11,452 feet) by approaching it from the Club's new Saskatchewan Glacier Hut on August 16, 1945. My companions on the climb were two 15-year-old boys from Edmonton, Tom Dowler and Peter Methuen and for both of them it was their first big peak. We left the hut at the somewhat late hour of 8.45 a.m. and drove the car to within 1/4-mile of the tongue of the Saskatchewan Glacier along the old trail used by the U. S. Army trucks in 1942. The main stream now issues from under the ice at the extreme south corner of the tongue and is already of considerable size, but fortunately an easy route is available up the true right bank on to the ice. Incidentally anyone finding himself on the gravel flats to the north of this main stream can easily cross it by going east to the log jam that blocks the canyon by which the river makes its exit to the lower gravel flats; the mighty Saskatchewan is only 18 inches wide at this point!

Proceeding about 2 miles up the main glacier and crossing to the true left bank, a direct line was taken above timber over easy rock slopes to a well defined col on the main southeast ridge of the mountain at about the 9,500-foot level. Some gendarmes had to be turned on the way and this involved a bit of interesting route finding. This southeast ridge has three small peaks on it, as yet unclimbed, but consisting apparently of very rotten rock. After stopping for 45 minutes for lunch we reached the col about 3.00 p.m. and looked down very steep slopes on to the small glacier in the east basin, which is drained by Hilda Creek. The climbing for the next 1,000 feet was fairly straightforward along the edge of a steep snow slope, which fell away sharply to the east. The last 800 to 1,000 feet was a rock climb up a series of small cliff bands, whose main characteristic is a series of small narrow ledges with downward tilting strata. This was the most time-consuming part of the climb as it calls for "one at a time" methods. Once on the summit ridge the knife edge of snow can be followed to the highest point if snow conditions permit, otherwise one has to keep

on the ledges to the left of the snow crest. We reached the summit cairn at 6.00 p.m. and spent only 20 minutes there. In the cairn was a record of a climb by a U. S. Army party two days before and their record paper was marked "V-J Day." It was our first intimation that the war was over. As a storm was approaching from the northwest over the icefields we decided to descend by the standard route, which consists entirely of snow and ice climbing. We were able to use the steps of the American party in a number of places. Two and one-half hours saw us down in the American camp, which was pitched on the old 1938 A. C. C. campsite. We spent the night there and were fortunate in getting a ride back to the Saskatchewan Glacier Hut next day with Jack Brewster. The total climbing time was 10 1/2 hours. Future parties would be well advised to have a car meet them at the Columbia Icefield Chalet, as one is then about 12 miles by road from the hut.

— E. R. Gibson.

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## A Practical Ice-axe Belay

Sacrifice of an ice-axe used as a belay when roping-off over a bergschrund is mentioned often enough in mountaineering literature to suggest that there is no widely known means of bringing down the axe after the last man descends. The following method of "eating your cake and having it too," may therefore be of some interest. So far as the writer is concerned it was invented without his having heard of a similar device ever being used.

It serves for a descent equal to one-half the length of the climbing rope, and the only special equipment needed is about eight feet of really stout cord or light rope one-quarter inch thick. The two knots recommended are among the simplest known to man. The writer made the first trial set-up in less than five minutes.

One section of the climbing rope is used for descent; the other, to bring the axe down, will be called the retrieving rope. Therefore the middle of the rope must be knotted securely to the axe. The simplest knot for this will be a clove hitch, a knot of many uses, consisting of two half-hitches, one of these hitches going round the pick and the other round the adze of the axe head.

The "Prusik sling" knot is used to attach the middle of the doubled cord to the retrieving rope at a. point more than the axe-shaft length from the head of the axe. One section of the cord is now fastened with a clove hitch (absolutely the most compact for the purpose) to the spike of the axe shaft so that when the shaft is reinserted in the snow the Prusik knot rests on the snow.

We now have an idle loop in the retrieving rope so that any pull on this rope from below is carried by the cord and will lift the shaft out of the hole. Rather obviously, some article which will not produce too much friction must be bedded down on the snow beside the axe to prevent the cord cutting sideways—another axe, a crampon, or the cord can be run through the handle of a cup suitably pressed into the snow. The spare section of our cord is provided to take care of bringing down this article, enough length being allowed to act after the axe has leapt clear of its hole, and this latter action is best achieved in one long pull.

If the rope used for descent cuts very deeply into the snow lip its friction may hamper lifting action of the retrieving cord. If one cannot be sure of flipping it free from its groove—which can be tested before the last man comes down — it may be necessary for some garment to be wrapped round it at this point.

The retrieving rope preferably will not be used with a vertical pull unless one is well placed to dodge the falling ice-axe. Where this rope crosses the lip the snow is best flogged down to some compactness.

Perhaps for those who do not know the Prusik knot — which every member of a party on

a glacier should know — it may be explained it is used for attaching a sling to a climbing rope, and in crevasse rescue work the sling forms a readily movable hand- or foothold. For our ice-axe "rescue" the loop of the double cord is passed under the rope, the ends of the cord then being wrapped once or twice around the rope, but passing each time through the loop. When pulled tight it will not slip along the rope. A clove hitch will do here but is not quite so easily loosened.

The workability of the roping-off method which has been described can be tested for practice purposes anywhere on snow, for its essential feature is lifting the axe shaft out of the hole.

It probably will occur to one who studies this method that the rope can be attached directly to the spike of the axe, but it makes a bulky knot not easily retained in place, and requiring a large hole in the snow.

A note of caution and explanation might be well. Failure to attach the rope to the head of the axe may defeat the very purpose for which the belay was devised. Tests show that if the rope is knotted only round the shaft, that withdrawing the axe from the snow may at the same time slip the shaft so far out of the knot that it will escape. If for any reason the axe cannot be driven in full length, make an additional knot at the surface of the snow. This knot then need be only a half hitch. The axe or other object over which the withdrawing cord runs must be bedded firmly in the snow so that it is not dragged sideways before the axe begins to lift. This can be tested readily from below before the last man leaves.

On the subject of roping-off in general I am reminded of a climber who seemingly had never been in a situation where he thought such tactics of any use; he terms them mere stunts. Which further reminds one of the famous debate over the wearing of diamonds; it pretty well closed with somebody's shrewd observation, "I notices 'em that 'as 'em, wears 'em."

— W. A. Don Munday.

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## McKay Peak, Vancouver Island

The British Columbia Historical Quarterly, October, 1945, records the unveiling of a plaque in Nanaimo, B.C., in memory of William Joseph McKay, the Hudson's Bay Company official who opened the first coal mine there. In the course of the ceremony it was announced that "the high peak between Ladysmith and Victoria that has been known as Buffalo Observation Point will henceforth be known as Mt. J. W. McKay."

Information from the Department of Lands and Forests shows that the name is McKay Peak, 4,138 feet, at the head of Haslam Creek, 12 miles west of Ladysmith, and the same distance southwest of Nanaimo. Buffalo Hump is the local name for a smaller feature nearby. A survey triangulation station on McKay Peak was referred to as "Buffalo" but it is not thought that that name had any other currency.

The original spelling of McKay's name was Mackay, but the Hudson's Bay Company insisted on uniformity of spelling of names with the same pronunciation. He was born at Rupert House on Hudson Bay, and crossed the Rockies at the age of 15. He was only 23 when Chief Factor Douglas (later Sir James) sent him to open a coal mine at Wintuhusen Inlet, a name soon dropped for "Nanaimo" which was a modification of Snenyimo. (Coal was found first by an Indian chief while digging clams on the beach. He had not seen coal before but tried it in his campfire. When he visited the Hudson's Bay Company fort at Victoria and saw coal in use by the blacksmith, he offered to bring a canoe load in return for a suitable reward. On fulfilling his boast he was given a bottle of rum and his gun was repaired without charge.) McKay rose to become Chief Factor, and later joined the Department of Indian Affairs, remaining in the government service until his death at the age of 81, in 1900.

— W. A. D. Munday.

## Climbs in the Lillooet Range

The visit by Bert Brink to the South Fork of Stryen Creek in the Lytton District in May, 1941, and the successful ascent of Nikaia Mountain[1] at the head of the South Fork valley by Charlie Ney and Bill Mathews in the same month, revealed the possibilities of mountaineering in that area. In the preparation of a climbing schedule for the Vancouver Section of the Alpine Club of Canada for the year 1942 an attempt on Nikaia was considered but it was not until Thanksgiving weekend, 1944, that an attempt was actually made.

At that time ten members of the Vancouver Section (Phyllis Boyce, Peggy Flood, Winnie Forbes, Nelly Fraser, Jack Atkinson, Bert Brink, Neal Carter, Bill Mathews, Jack Rattenbury, and Bill Rolick) paid a visit to Stryen Creek Valley. Most of the party left Vancouver on the evening of Friday, October 6, by train for Lytton, 155 miles away, and the balance of the party followed the next morning. Arrangements had been made for horses to carry the packs to the upper camp of the Lytton Gold Mines (elevation 5,500 feet). Here the party spent the night comfortably quartered in the abandoned bunkhouse. On the following day the group, following the 1941 route, made the second ascent of Nikaia and returned to the upper camp by nightfall. Blessed with excellent weather the party found the climb most enjoyable. In spite of enthusiastic plans to remain in the valley longer the entire party returned to Vancouver the next day. This trip, brief as it was, stimulated interest in the area and on the last week of December, 1944, a ski trip was made to the valley. The party, consisting of seven men (Bert Brink, John and Jim Fyles, Bill Mathews, Tom Rogers, Fred Roots, and Frank Whiting), left Lytton on Boxing Day and ascended to the lower cabin that evening. Since a trail had to be broken in as much as 2 or 3 feet of fresh powder snow, the ascent to the upper cabin on December 27 proved to be a full and exhausting day's work. On the 28th the party made a journey on skis to the head of Stryen Creek valley and up the northwest glacier of Nikaia to the bergschrund, thence, on foot, to the crest of the west ridge. Ice-coated rocks and inclement weather prevented the completion of what would have been the third ascent of Nikaia. A visit was made to the pass southwest of Mt. Roach on December 29. Two members of the party, Fred Roots and John Fyles, who remained after the rest of the party had returned to Vancouver, completed the first ski ascent of Mt. Roach (8,672 feet) on January 1, 1945.

These two expeditions confirm the belief in the possibilities of the Stryen Creek area both for climbing and for skiing. Peaks east of the upper camp, as well as Nikaia, present interesting problems in rock climbing, and Roach, an easy ascent, provides an excellent view of the Interior Plateau of British Columbia. The winter trip indicates that even during winters of deficient snowfall good skiing conditions may be expected in this part of the Coast Mountains. At the high elevations in the valley (5,500-8,500 feet) winter temperatures are evidently sufficiently low to minimize thawing and hence both the loss of snow cover and the incidence of sun-crust. Winter precipitation, in terms of inches of water, may be appreciably greater in the valley than at Lytton, only 5 miles to the east, and indeed perhaps greater at the head of the valley than at the lower end, 3 or 4 miles away. Excellent snow conditions were encountered on the Nikaia glacier. This glacier, however, lies more than 2 miles from the upper cabin, and a considerable part of this distance is along a flat and, in places, heavily timbered valley floor which does not provide good skiing. The valley walls are steep and avalanches may be common. The cabins, which, so far as is known, have not been used except by visitors for about eight years, are in remarkably good condition. Residents

1 *C.A.J.*, xxviii. No. 1, 1941, pp. 60-64.

of Lytton, notably Mr. Neal Hallisey, genial mountaineer and Canadian Pacific Railway station master, and Mr. Onyon of the Earlscourt Ranch, have willingly provided welcome assistance to climbers. The valley can be recommended to both mountaineers and skiers.

— W. H. M.

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## New Ascents

**Mt. Delphine** (11,076 feet), first ascent by northeast ridge, September, 1944 (*C.A.J.*, xxix, p. 6), by Dr. and Mrs. I. A. Richards from camp at White Cat mine; over pass at head of Bruce Creek, up conspicuous tongue of glacier to upper glacier basin; thence by northeast ridge to summit at 4.00 p.m.

**Sultana** (ca. 10,500 feet), first ascent, September, 1944 (*C.A.J.*, xxix, p. 7), by Dr. and Mrs. I. A. Richards from camp at White Cat mine to Nelson-Sultana pass taking a southerly couloir to avoid falling stones. Thence by rock ridge, small snowfield and more rocks to interesting summit at 4.00 p.m. Traversed to Mt. Catherine. Halfway along ridge crossed pleasant peak (Fatima) and built cairn.

**Erebus** (10,234 feet), first ascent by the west slabs from Simon Creek, on August 11,1945, by Dr. and Mrs. I. A. Richards. Left camp 8.00 a.m. and climbed the slabs from their lowest point straight up to the skyline. Summit 1.40 p.m. Descent by easy west ridge.

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## As Others See Us

The following poem, written by Mr. Middleton after his stay at the Club House, Banff, in 1945, is reprinted from the *Toronto Saturday Night.*

### On Mountain Climbing

The Alpinist appears to me
  A starry creature, blithe and bold.
The topmost peak he longs to see
Where snowy gales are whirling free
  And sunbeams are too cold.

He climbs rock-chimneys with his rope,
  Cuts holes in glacier ice
Set at a terrifying slope,
And puts his feet therein with hope,
  Neglecting all advice.

But if he slips (Grim are the Fates!)
  He never climbs again
Save to the celebrated gates
Where grave Saint Peter calmly waits
  For other gallant men.

I'd love to be an Alpinist,
  But this would be my rating;
I'd dream of conquering Everest,
But actually I would list
  As non-participating.

— J.E.M.

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## Harry Phillips

Another of our old time friends has passed into the great beyond. Harry Phillips of Jasper was instantly killed on January 16 by a falling tree. Thus the life of an expert river man, a keen woodsman and an always friendly and obliging companion on river and pack trail was snapped out in a split second of time.

All who have ever visited Maligne Lake knew Harry Phillips as the capable operator of his brother Curly's motor boats on the lake. After Curly's sudden death in 1938 Harry continued to operate the boats for Curly's widow.

Harry also carried on Curly's outboard motor trips on the Peace River in northern Alberta and British Columbia, from Summit Lake on the divide between Pacific and Arctic waters, down the Crooked River to Lake McLeod, down the Pack River to the Parsnip, down the Parsnip to Finlay Forks, where the big Peace is formed by the juncture of the Finlay River on the north and the Parsnip on the south. I have been fortunate enough to have taken this trip four times under Harry Phillips' guidance, and at the time of his sudden death, we were in correspondence about a fifth Peace River trip for next September.

All who knew Harry Phillips will mourn his passing — but will rejoice that this outdoorsman met his death suddenly, in the open, as did his brother, Curly Phillips, in the full vigor of an active life.

— Caroline Hinman.

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## Mount Eisenhower

The most spectacular feature of the landscape area on the highway between Banff and Lake Louise is without a question a peak stretching some miles along the northern side of the Bow River Valley, a stupendous castellated rampart that has long been known as Castle Mountain. Although not high, only slightly over 9,000 feet, yet its precipitous elevation of some 4,500 feet above the valley and its magnificent setting in splendid isolation endow it with a distinction which higher peaks, like Pilot and even Mount Temple, do not attain. A fine impression of its striking appearance is conveyed by the admirable picture in the February, 1946, number of the *Canadian Geographical Magazine.* Named by Sir James Hector almost ninety years ago, who saw a similarity between its huge mass and the ruins of an old fortress, no more appropriate designation has been given to any peak in the Canadian Rockies. Too many of these mountains have been named in honor of individuals who have first seen or climbed them, or to compliment commercial magnates or politicians, who were unable to climb, in rarer instances to perpetuate the names of outstanding mountaineers. Too few have been named for significant features of their structure, position and history.

It was therefore with deep regret that members of the Alpine Club of Canada learned that in order to honor a great military leader and very distinguished man, Castle Mountain had to give place to Mount Eisenhower. Certainly it is most fitting that Canada should express its admiration and gratitude for the eminent representative of a friendly nation to whose masterly skill so much is owed. But why should this take a form that is not appropriate, since General Eisenhower is not a mountaineer. One of the principal streets in Ottawa might for instance have received his name, or a new avenue might have been constructed for this purpose.

The following letter addressed in this connection by the President of our Club to the Prime Minister of Canada and happily supported by the American Alpine Club, seems to be timely and

will, it is hoped, have a restraining influence on the facile changing of long established names, which have been recognized as well chosen.

Castle Mountain has not attracted mountaineers to the extent that its appearance might suggest, owing perhaps to its distance from any climbing centre and to the comparative easiness of the routes of ascent, except that by the southeast tower which is lower than the summit. On its east and southeast side this tower affords difficult climbing, quite comparable with any part of Mt. Louis. It was not ascended until 1926. On the descent of some 800 feet of vertically four ropings off were required. Fortunately the rock is firm, which makes the climb enjoyable as well as strenuous.

— J.W.A.H.

3592 Quesnelle Drive,
Vancouver, B.C.,
January 10, 1946.

Sir:

The renaming of Mount Castle to "Eisenhower" has just been announced by the Press. The Alpine Club of Canada greatly regrets that such action was taken, and is concerned lest other great peaks of our Canadian Mountains should suffer a similar fate.

While we recognize the kind thought that prompted such action, as honoring our very distinguished visitor, surely there is some better way of doing him honor than by renaming a landmark which is so fittingly named and has been so affectionately regarded as "Castle" both by thousands of Canadian citizens and countless American friends. We earnestly hope that other great peaks which have become so well known and beloved will remain inviolate in this regard. To rename such a sublime peak as Mount Temple, for example "Alexander" or "Montgomery" would truly be an act of sacrilege in the eyes of most Canadians. We sincerely trust that you can assure us that such shall not take place.

We would take this opportunity of suggesting that the Alpine Club of Canada be granted representation on the Geographic Board, or at least be consulted when any change in nomenclature of Canada's topographical features is contemplated. We feel that as we are the premier exploratory and mountaineering organization in the Dominion, and as such reflect the wishes and desires of all those who work towards the preservation of Canada's natural beauties, and in the education of Canadians to an appreciation of their mountain heritage, that such representation is not only desirable but in the best interests of Canada.

We urge that you will give this matter your careful consideration and hasten to assure you that what is herein contained is submitted in a spirit of helpfulness and co-operation. We are fully appreciative of your great services to the citizens of Canada, and know that you have always had their best interests at heart. It is for this reason that we bring this matter to your attention.

We have the honor to be, Sir,

Yours faithfully,
ERIC BROOKS,
President, A.C.C.

The Right Honorable Mackenzie King,
Laurier House,
Ottawa, Canada.

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# CLUB PROCEEDINGS

## Eremite Valley Camp

July 15 to July 28, 1945

The Club's fortieth annual camp held in Eremite Valley on the site of the 1934 camp was attended by 116 members and friends. All agreed that it was admirably situated for it provided ample scope for the most energetic and ambitious mountaineer as well as for those participating in the less strenuous alpine pastimes. The snows of Angle Peak, the cliffs of Eremite and Erebus, the glaciers of McDonnell and Simon, as well as the belvederes Outpost and Thunderbolt were much visited; while the challenging peaks Paragon, Parapet, Oubliette and Bennington each attracted the more skilled mountaineers. And the many fine beauty spots so easy of access—the cascades of Eremite and Penstock Creeks, the flower-strewn meadows, and the numerous colorful lakes provided enjoyment for all, while each had its especial appeal and interest for the botanist, fisherman and photographer. The camp program, therefore, was full and varied—a most pleasant and enjoyable rendezvous.

We were very fortunate in having so many experienced volunteer guides and rope leaders in camp and the extensive climbing program was only made possible through their co-operation and unstinting services. Our thanks are especially due to Rex Gibson and Bob Hind for their ever ready assistance. Their previous climbing in this area provided us with much information which greatly facilitated all climbing parties; while their experience in leading parties was used to the full. Those leading climbs included Mesdames Brett, Finley, Hamilton, Kramer, Munday and Richards, and Messrs. Arbuckle, Blanc, Brett, Brink, Brooks, Cuthbertson, Gibson, Oilman, Hall, Hind, Innes, Kingman, Kramer, Marston, Munday, Parkes, Reid, Richards and Winram. Climbs made during camp included the following: Anchorite, Alcove, Angle, Bennington, Bennington Glacier to Bennington-McDonnell col, Erebus, Eremite, Memorial, McDonnell, Oubliette, Outpost, Paragon, Parapet, Simon, Surprise Point, Thunderbolt, Three Blind Mice. A mountaineering school was conducted by Rex Gibson where the techniques of step-cutting, rappelling, etc., were practiced by graduates and others.

Once again we were fortunate in having as our cook Ken Jones, who looked after our wants with his usual efficiency and cheerfulness. 'Somewhat of an innovation was the presence of our two waitresses, Amelia and Olga. The competent and cheery manner with which they handled such large crowds under not always ideal circumstances was much appreciated and we hope they will be back with us next year. Although the weather did not permit of campfires every evening, those that were held were in the best tradition and will be recalled with pleasure. Bea De Lacy's accordion accompaniments, Herb. Sampson's wit (and rosebuds), Ivor Richards' anecdotes, and Fred. Parkes' skits were notable contributions. We were fortunate in having Dr. Frank Gaebelein with us once again to conduct the Sunday service.

During camp we had numerous visitors, and it is hoped that the welcome they received did much to offset the trials of the "worst ever" trail. John Case, President of the American Alpine Club personally conveyed to the Club the best wishes of our sister club across the "line." Bill Latady, Editor of The Harvard Mountaineering Journal, led a party of three very enthusiastic members of the Harvard Mountaineering Club. Four British climbers headed by Dr. Chris. Reid were most welcome visitors. It is very gratifying to us that all of the above-mentioned visitors have now become members of the Alpine Club of Canada.

We also had a visit from Major McFarlane, Water and Power Engineer of the Department of Mines and Resources, who conferred with the Glacier Section of the Club.

The Canadian National Railways, who contributed in so many ways towards the success of this camp was ably represented by Mr. A. F. Eagle of Edmonton and Mr. W. H. Robinson, official photographer from Montreal.

The following passed the test for active membership:

Mt. Bennington:

Messrs. Roger Clapp, Bruce Cork, Chris. Reid.

Angle Peak:

Misses Margaret Jenkins, Amy MacGowan, Gwen Russel. Messrs. George Hampson, Otto Kuettner, Heinz Paneth.

Eremite Peak:

Mr. Bill Latady.

Memorial Peak:

Misses Constance Bonner, Elizabeth Flanders, Hilda Maclean, Ruth Watkins, Mr. Ulo Goldsmith.

Paragon Peak:

Mr. Mills Winram.

Parapet Peak:

Mr. Roger Hanna.

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## Annual Camp Visitors

Visitors were drawn from:

CANADA

Alberta — Bellevue, Banff, Calgary, Edmonton, Jasper, Ponoka.
British Columbia — Cobble Hill, Donald, Golden, North Vancouver, Vancouver, Victoria.
Manitoba — Winnipeg.
Ontario — Ottawa, Toronto.
Quebec — Montreal, Westmount.
Saskatchewan — Regina, Saskatoon, Shaunavon. .

GREAT BRITAIN

Cambridge, London, York.

UNITED STATES

Illinois — Highland Park, Wilmette.
Massachusetts — Boston, Cambridge, Worcester,
Minnesota — Minneapolis.
New Jersey — Essex Falls.
New York — New York, Stoney Brook.
Oregon — Oswego, Portland.
Pennsylvania — Narberth, Philadelphia.
Washington — Seattle.
Wisconsin — Milwaukee.

Representatives attended from the following A.C.C. Sections: Calgary, Edmonton, Montreal, Minneapolis, New York, Regina, Saskatoon, Vancouver, Winnipeg. Also members from the Alpine Clubs of England, America, France, New Zealand, Switzerland, The Royal Geographical Society, The Appalachian Mountain Club, The Harvard Mountaineering Club, The Mountaineers (Seattle), The Mountaineers (B.C.), Mazamas, University of B.C. Outdoors Club, McGill Outdoors Club, Sierra Club.

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# Canadian Pacific Hotels

## WELCOME YOU ACROSS CANADA


ROYAL YORK
TORONTO, ONTARIO

CHATEAU FRONTENAC
QUEBEC CITY, QUEBEC

McADAM HOTEL
McADAM, NEW BRUNSWICK

HOTEL SASKATCHEWAN
REGINA, SASKATCHEWAN

EMPRESS HOTEL
VICTORIA, BRITISH COLUMBIA

CORNWALLIS INN
KENTVILLE, NOVA SCOTIA

HOTEL PALLISER
CALGARY, ALBERTA

ROYAL ALEXANDRA
WINNIPEG, MANITOBA

HOTEL VANCOUVER
VANCOUVER, BRITISH COLUMBIA
(Operated by the Vancouver Hotel Co., Ltd., on behalf of the Canadian Pacific and Canadian National Railways)

### RESORT HOTELS AND LODGES

Open Summer Months Only

BANFF SPRINGS HOTEL
BANFF, ALBERTA

CHATEAU LAKE LOUISE
LAKE LOUISE, ALBERTA

EMERALD LAKE CHALET
Near FIELD, BRITISH COLUMBIA

MOUNTAIN LODGES:
IN THE CANADIAN ROCKIES

DEVIL'S GAP LODGE
KENORA, ONTARIO

ALGONQUIN HOTEL
ST. ANDREWS-BY-THE-SEA, N.B.

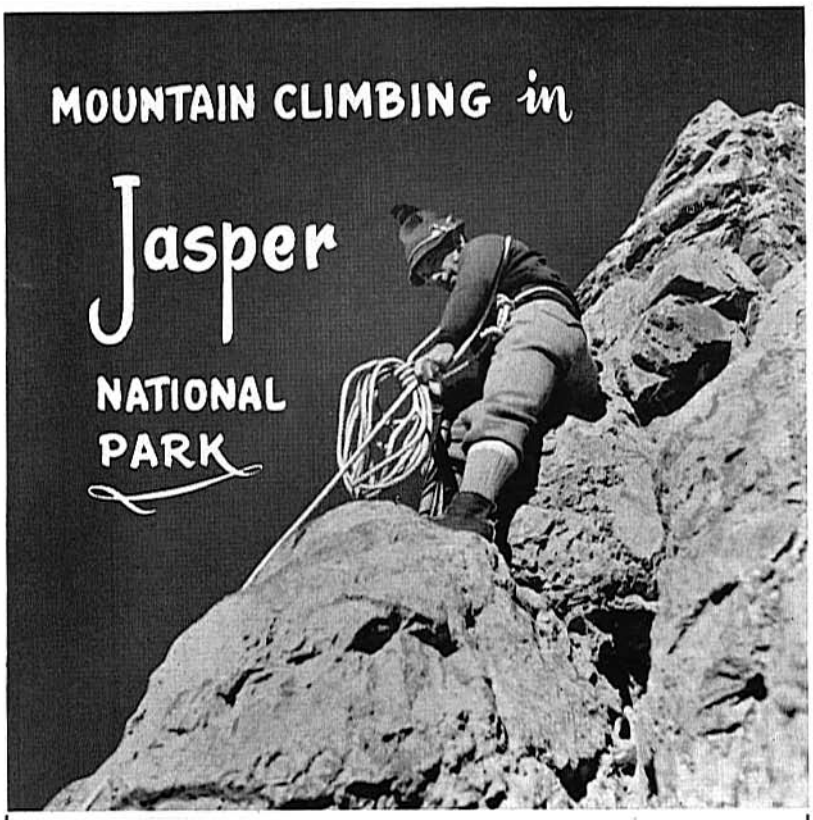
DIGBY PINES HOTEL
DIGBY, NOVA SCOTIA

LAKESIDE INN
YARMOUTH, NOVA SCOTIA

At Canadian Pacific Hotels you are assured of restful comfort and courteous service throughout every moment of your stay, whether your visit be long or short, on business or pleasure. You will enjoy the finest hotel accommodation in the most modern manner. Comfortable guest rooms — delicious meals — moderate rates — and the gracious hospitality for which every Canadian Pacific Hotel is famous.

*For rates, reservations and full information communicate with hotel managers or your nearest Canadian Pacific agent.*

Canadian Pacific Hotels




*In JASPER NATIONAL PARK you'll find peaks aplenty to try your skill — peaks world-famous among the climbing fraternity.*

GOOD NEWS for all who remember glorious vacations at friendly, informal Jasper Park Lodge! After the Camp, plan to spend some time in Jasper National Park, the largest national park on the continent. There's golf on the remodeled 18-hole championship course, swimming in the heated outdoor pool, fishing in mountain lakes and streams, hiking or horseback riding—motoring—all the ingredients for a perfect holiday.

*For travel routes and all other information regarding Jasper, ask any C.N.R. agent for full particulars.*

**CANADIAN NATIONAL**

# THE
# ALPINE CLUBHOUSE AT BANFF

The Clubhouse will open the last week in June. Members and friends are invited.

The Clubhouse is situated on the Upper Hot Springs Road. Motorists who drive direct will find ample parking space provided.

The charge for members is $3.50 a day, non-members $4.00 a day, children twelve years and under $2.50 a day. A reduction of ten per cent will be allowed to those staying a week or more. These charges include meals.

While we expect to be able to take care of all members and their friends who will come to the Clubhouse, it will assist the Committee if advance notification is given by letter or telegram stating date and time of arrival. Before June 10 write to the Manager, House Committee, Herald Building, Calgary, and after June 10 to the Manager, Alpine Clubhouse, Banff, Alberta.