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**Major-General William W. Foster,
C.M.G., D.S.O.**

This Issue of

The Canadian Alpine Journal

is dedicated to the

memory of

William Wasborough Foster

CANADIAN ALPINE JOURNAL

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MT. GILBERT—BY HELICOPTER

By Paddy Sherman

Two flagrant pieces of theoretical hitch-hiking put our party of seven safely on Mt. Gilbert's peak on August 13.

First, we took every advantage of the exploratory trip into the area in 1952 by Dr. Neal Carter, F.R.G.S., and his party, which failed so narrowly to climb the 10,200-footer on the first attempt after an incredibly tough bush trip.

Second, and we still haven't decided whether to be ashamed or delighted about this, we managed to borrow a mining company's helicopter to carry us into base-camp.

You can see just how much this meant when you study the account of the previous expedition (CAJ 1953). It took the part eight camps to reach base at little more than 4,500 feet on Raleigh Glacier. It took us a shade over 20 minutes, plus four days waiting for the special brand of weather the helicopter needed.

But first, let me put the trip in its proper perspective. Dr. Carter explained it in much greater detail in the 1953 Journal. Briefly, Gilbert and its neighbor Raleigh, soar into the sky about 120 miles northwest of Vancouver, just over 20 miles up the Southgate River and Raleigh Creek from the head of Bute Inlet. Dr. Carter and Ian B. Kay became interested when they saw them from Mt. Monmouth in 1951. Later mapping by this pair confirmed for Gilbert the apparent distinction of being the nearest unclimbed 10,000-footer north of Vancouver.

Their party took such a long time, however, on relay packing through the almost insufferable Coast Range bush in 1952 that they had time for only one crack at the summit. This wound up at the wrong end of the summit ridge, and its bristle of jagged spires—a ridge, incidentally, which would have been a good day's climbing at sea-level.

In early 1954, members of that expedition seemed to be absorbed in searching for pastures new for the coming summer. I, being a fairly recent arrival from England, and blissfully ignorant of the tumultuous character of the Southgate, felt a boat might be the answer. At the fifth try to reach Bute Inlet veteran resident August Schnarr by long-distance radio from Vancouver, we learned he was on a business trip to Vancouver—in a hotel six blocks away from us.

And we found that he has a wonderful boat-contraption made of plywood, driven by an aeroplane-style propeller at the stern.

But we lost interest in the boat idea rather rapidly when Mr. Schnarr mentioned casually that a helicopter would be doing a mineral survey of the area that summer.

So on August 8 our party of seven left Vancouver by Pacific Western Airlines. Some had been lucky enough to watch Dr. Roger Bannister make miling history at the British Empire Games the day before, and we were now ready to try a hand at a little history-making on our own. There were Dr. Carter, Leon Blumer of Trail, Alan Melville, Miss Elfrida Pigou, and Mrs. Josephine

Summit Of Raleigh From Gilbert. *Photo Paddy Sherman*

Small "x' on face shows farthest point reached.
Route goes up to snow col at left, then behind skyline ridge to summit ridge.

Young and her husband Dave of Portland, Ore. All except Mrs. Young, Blumer and myself had been on the 1952 trip.

Pilot Val Hennell unloaded us and our equipment from his apparently rubber-sided Norseman before 9 a.m. in miserable weather and at low tide, which left us with a fascinating long wade ashore through liquid ice and mud-flats. Then fingernails began to figure prominently in our diets because we had to wait at the mouth of the Southgate from Sunday morning until Wednesday night for helicopter weather.

Luckily Mr. and Mrs. Bill Brandon had just moved into their logging camp there, and made us comfortable with magnificent generosity. In fact, as we waited for the helicopter to arrive from its socked-in operational base, we had the first three days' complete rest some of us had had for years.

On Tuesday a small plastic bubble frailly attached to pint-sized rotors putt-putted into camp with a clatter, and pilot Bill Legg jumped out with grim news about the weather. His little Bell 'copter could not fly in clouds, he said, as it had been stripped of almost everything for high-altitude work, and had practically no instruments. Condensed, this meant that in cloud his machine was just as likely to fly one side up as the other. It looked as if the clouds would never lift. Every day they seemed to get lower over the mouth of the mighty Homathko River at the other side of the inlet. He promised to come back Wednesday, Aug. 11 and ferry us 16 miles up the Southgate to the foot of Raleigh Creek, less than 300 feet above sea-level.

That's what he did, and just before 6 p.m. he took off crab-wise with Neal and Alan. We sat nervously at the end of a logging road for 40 minutes while, unknown to us then, the 'copter was slowly climbing in circles amid the cliffs of Raleigh Creek with Legg muttering: "We'll never make it. We'll never make it."

But he scuttled brilliantly in under the clouds with feet to spare, and came back for the next load of two and their packs, always expecting to have to retreat because of the weather, leaving part of the group stranded above. Each trip took about 20 minutes in, and within two hours everyone was on the snout of Raleigh Glacier, with 500 pounds of gear.

Just as it turned damply dusk, we settled on top of a high moraine bank a little over 5,000 feet up, with a dozen sorts of flowers and strawberry bushes for beds, and walled in by six huge icefalls pendant from the low-slung clouds. Raleigh was just out of sight to our left; the Cleaver split the vast Raleigh névé ahead, and outliers of Gilbert towered to our right.

Thursday, Aug. 12, we split into two parties for reconnaissance. Miss Pigou, Blumer, and I decided to have a look for a chink in the rocky armor of Raleigh, on which nobody had yet set foot. The others tackled a steep 9,000-ft. snow and rock peak whose flanks tumbled right into our camp. They had a splendid day's climbing, and were stopped within a hundred feet or so of the summit only by lack of a couple of pitons.

We followed the moraine to the foot of Raleigh, up a gully, and across wide snowfields to a band of cliffs cleft by an icy chimney crowned with an overhang. A few minutes of tussling landed us on the main ridge, which leads to the cluster of spires which seem to fight for the title of tallest. We roped as the ridge merged into a steep snow-face flaring to what we found later was the West Peak of Raleigh, about 9,900 feet.

Recent avalanche tracks had cut a swath to a huge schrund, and we found a safe route below it to a bridge. A short respite in angle turned the face into a small col, and once up a near-vertical pitch of hard snow, we were on the West Peak.

Raleigh itself was about 500 yards away, along a comb-like ridge of gendarmes, which plunged steeply on either side to glaciers waiting for the rotten cornices which hung from the ridge.

It looked sporting, but it was late in the day and we wanted the others to join us in the bid, so we turned back.

The sunlit setting as we neared camp again was one of magnificent beauty. On either side of the Cleaver, ice-falls tottered 3,000 vertical feet in rumbling chaos to the sweep of flat glacier below. Blocks bigger than houses peeled from the cliffs but looked puny. There was a rich, red sunset burning in the snow that night that augured well for Friday the unlucky (?) thirteenth, when we had decided to make our attempt on Gilbert.

We set off before 5 a.m., following the route the veterans had used before: up a convenient moraine at the left side of the Cleaver icefall, across the névé at its head to the lowest point of the Cleaver ridge, crossing several easy crevasses on the way.

The Cleaver, about 9,500 feet at its highest point, is the joint rim of two contiguous bowls. A sloping ledge of tottering, rumbling rock took us down to the second bowl, and as the sun came up we trod in the shadow of rock spires which kept the going good for almost two miles. Here, as the bowl merged into the slopes of Gilbert, we lunched, seven hours from camp.

An apparently sound decision at this spot had cost the party the peak in 1952. They kept up high to the right, making for the summit. They reached a rounded snow dome at 10,000 feet, but the pinnacled ridge was between them and the high point, and the hour was too late.

This time we dropped down to the left, in the direction of the giant Compton Névé. The snow was softening fast, and brilliant sun combined with a light mist to make visibility almost nil. We threw snowballs ahead to give focal points for the eyes, and bore towards a snow ridge at the foot of the summit rocks. It appeared easy from an aerial photograph, and so it turned out to be. A few more crevasses, some breathtaking views, and we were at the foot of the last snow wall. Steep, and possibly overhanging on the other side of the sharp ridge, it demanded caution. But before long all seven were safely up. It was 2 p.m., a comfortable nine hours from camp.

From the summit a tremendous panorama stretched into seeming infinity. Waddington, Toba, and Monarch formed the boundaries of our view. But close at hand were many smaller peaks, some of them glittering, splendid challenges. Biggest attraction was Raleigh, looming over our base. Level-readings from Gilbert indicated it is nearer 10,400 feet than the 10,100 credited to it. Far off in the Toba Icefield, much nearer Vancouver, an unclimbed and apparently unnamed peak seemed to top the 10,000-ft. mark.

Almost at our feet Mt. Falcon shot skywards in steep, inviting ridges to something over 9,500 feet—quite a hard, fascinating climb by either of the tentative routes we saw. Between us and the Southgate were three or four more fine summits, including Tavistock and Blackwall, all heavily plastered with snow and ice and within bivouac reach of our base camp. We spent almost two hours soaking in the details.

The return to camp through mushy snow had the tedium of anti-climax until we came in sight of the Cleaver spire ahead. A rest at its foot helped a lot, and Elfrida, Leon and I set off up the northern side of its northwest ridge. The setting sun was dropping purple velvet linings into the crevasses, and froze the soft damp snow. Several steep snow walls and a tangle of rocking boulders poised over the precipice of the south face kept us thoroughly interested in the hour or so we took to reach the summit. The horizon clutched the bottom half of the sun as we hurried down, face-in on the steep walls, and raced after the others over the hardening, shady névé.

By the time we tottered through the gloomy bush 3,000 feet lower, the last light had gone, and we had been out for 17 hours. After buckets of milk shakes and eight cups of coffee, at least one of us needed a sleeping pill.

Next day we had one case of sunburn and six serious cases of natural disinclination to move, so we loafed, photographed the prolific wild-flowers, and tried with sorry lack of success to find a photogenic goat. There were unconfirmed reports that one member was seen cleaning his teeth.

Sunday, Aug. 15, saw us split into two parties once more. The larger one went west down the moraine, then up a valley to the north. They found it shut in by great cliffs, but one yielded a simple route and they reached a 9,000-ft. summit which gave fine views over the Bishop River area in the intervals when the cloud parted.

Elfrida, Leon and I made a lateish start through drizzling cloud towards Raleigh. This splendid peak was—and still is— the big question mark of the trip. Neal had plotted from the aerial photographs what appeared to be the highest point. He was right, but it was a near thing.

Glaciers hang from every side, and every ridge is steep and jagged enough to look unpromising. We thought our West Ridge the most feasible, sharp as it was. Others preferred the southwest. Before we left home there had been some suggestion that there might be an easy way up one of the faces . . .

We regained our previous highest point, Mush Peak, before noon, after emerging from the cloud blanket at 8,000 feet. Right away we had trouble. Descending 50 feet to the ridge proper, we found the rock overhung the north face—and one could take a handful of the stoutest holds and crumble them to dust. It took quite a while to build a cairn strong enough to rope down from, and we left the rope there for the return.

Then began several hours of interesting route-finding. We decided to keep low to the right, as the crest bristled with real troubles. But as we went slowly down and across gullies making for the lowest point, the hiss of peeling snow above and around us warned that things were not too healthy. We progressed slowly downwards, and as we sank, often on difficult, though sound, rock, the sea of clouds rose to meet us. More and more surrounding peaks were submerged in the thick billowing streamers of approaching storm.

We studied the route ahead, and decided that once caught by the storm we didn't stand much chance of getting out that night. So we turned rather reluctantly back. On the way we looked through a gap down onto the huge north face, and at the northeast ridge, overhung with cornices for much of its steep length. Later we were to find that much of the ridge was corniced on the other side too.

By the time we regained Mush Peak, the cloud had broken over us, and visibility vanished. Far below we could hear avalanches rolling, and as we made our way down the wide snow face we could hear water running below the ice under our foot-deep steps in the snow. We felt a lot happier when we scrambled past the last crevasse, and onto the safety of the mist-shrouded ridge. That, though we didn't realize it, was the last real climbing we were to have.

On Monday, August 16, almost the whole party retraced the Gilbert route up the Cleaver icefall, but instead of going right to the Cleaver, swung left to a small col leading to the east face of Raleigh. Neal and Alan climbed a steep snowface leading to the top of the south-east ridge, but were turned back by bad weather.

The others swung to the right immediately over the col with the hope of getting a good view of the north-east ridge. There was little trouble finding a route across the broken upper Styx Glacier Falls to the foot of the ridge.

There the picture changed abruptly. The ridge soared steeply with a huge schrund which seemed about 50 feet high cutting the obvious approach to it. Two bridges seemed to cross the

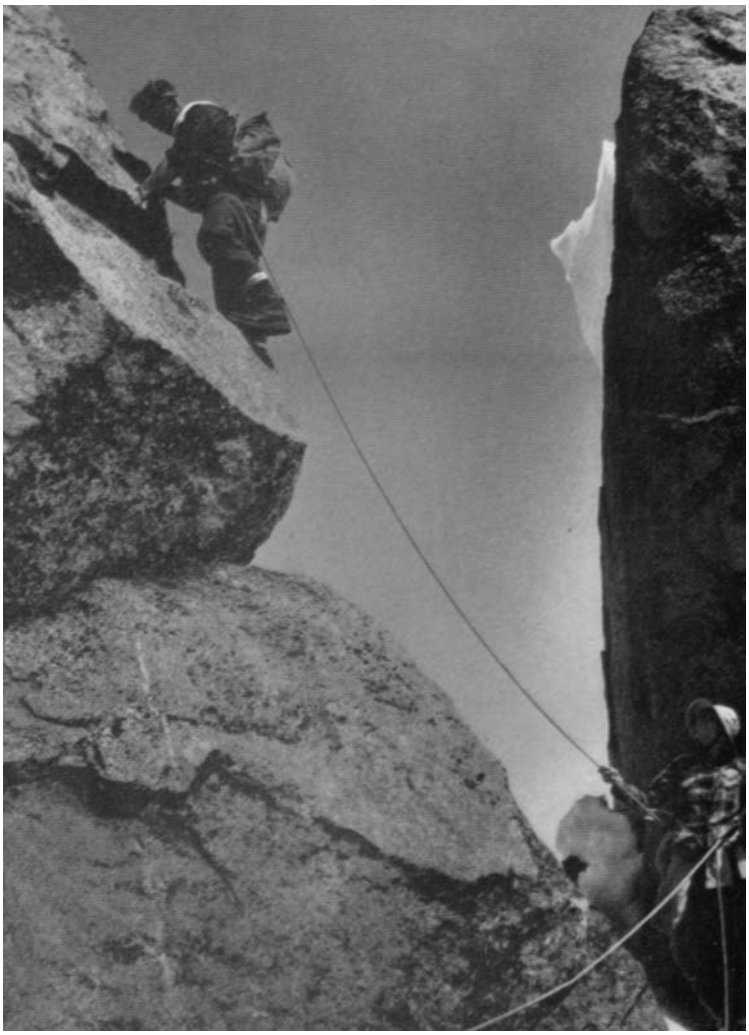
Pinnacled Summit Ridge Of Gilbert From Raleigh Ridge.
Photo Paddy Sherman

Wedge at top left is Cleaver Peak, climbed at right edge of snow.
Cleaver Icefall Is at climbers feet. Cleaver Ridge runs from his pack.

Good Going On Raleigh's West Ridge.
Photo Paddy Sherman

Most of the holds go wrong way.

Fine Granite On Raleigh's West Ridge.
Photo Paddy Sherman



schrund, but both showed signs of bombardment by minor avalanches and cornices still overhung heavily above. This was the ridge we had seen from the west ridge, and it overhung on the other side too, in places.

From where we stood we could, of course, see nothing of the north side of the ridge, and felt it was worth a closer inspection. So we decided to call it a day and make a 2 a.m. bid for the summit next day. This way we hoped to have the worst of the snow and ice behind us before the sun hit them. If necessary, we could wait until late evening before returning.

That was the plan, We lost sight of it in rain and cloud so thick we could hardly see the other tents when we awoke. It grew worse as the hours wore on, so we gave up disconsolately, and packed for our long bushwhack out.

It rained heavily all that day, Aug. 17, and soon after we set off at 1 p.m. we were sodden. A battle of several hours in slide alder did little to help matters, and it was dark when we reached the only good campsite in the whole descent of Raleigh Creek.

We had taken more than eight hours to descend 2000 feet and a couple of miles The camp was at the side of a cauldron where the entire river foamed into a crack only a few feet wide. The roar it made kept some of us awake most of the night.

Next day we plunged on down, and at mid-morning, reached the only decent crossing. It was a single pole coated with slimy moss that would have made the old greasy-pole of the fairground contests like a two-lane bridge covered with glue. The river frothed wildly a few feet below, licking tongues of spray over us as we straddled across.

That night we reached the "cabin", the only sign of civilization hereabouts, and that mainly psychological. It had been abandoned many years ago by a trapper who had the sense and skill to visit his line by canoe. We were less than 300 feet above sea-level, but had 18 miles of bush between us and Bute Inlet.

Thursday we plugged along through bush that must rank high on the list of the ten most-cursed jungles of the world. At times it was so tangled that even the long-thorned Devil's Club, up to 15 feet high, was a relief. Its leaves at least did come off easily when slashed with an axe. So did the thorns, as we found weeks later when digging them out of elbows and knees.

There was a bigger obstacle ahead, however—Icewall Creek, which might, in the best Everest tradition, be called Everybody's Horror. In drains several glaciers in the area of Mt. Blackwall, and rushes down at a terrific rate. The previous expedition had felled eight trees, each over 100 feet tall, with hand-axes, before they were able to get over. When they returned, the bridge had been swept almost completely away, complete with nylon handrail. It took a long time to get over after patching it.

On this trip we had seen from the 'copter that there was some of the bridge left, but water was foaming over it. So we approached it through the bush in considerable doubt. It was justified. It would have been suicide to attempt to cross on what remained. And most of the suitable trees had fallen to the axes in 1952.

However, we tried several times to get poles across before someone suggested that at the junction of the creek and the Southgate the torrent was a "little less tempestuous." We agreed, on seeing it, and Leon promptly volunteered to swim across and fix a high line. So, wearing his boots for protection against the rocks on the bottom, and with 220 feet of nylon round his waist, he set off.

Within a few yards he was bowled over, and struck out for the far shore. The current swept him faster and faster past his goal, however, and when he knew he wasn't going to make it, he turned back. We hauled him out, chilled to the bone after a brave attempt.

Morale plunged, and little was said. A desultory mutter began about making camp, and we began to move. But conscience was winning a battle with cowardice and I said quietly that as I had been a strong swimmer since the age of six, I was morally obliged to try.

Sharp ears they all had, They heard my mutter, and in seconds I too was bowled over and striking out. I profited by Leon's experience, but when I reached his farthest spot, I took a mouthful of water down the windpipe and began to panic. I turned around, but felt even more frightened of the trip back, so kept going. Before I made it, the current swept me around into the Southgate, the rope caught on the corner of the bank, and I was swept in to the bank.

Soon we had a Tyrolean traverse rigged, and the crossing was under way. It took about 2½ hours. Leon swam across after all, most sportingly, to save the ropes. It was dark when he did so, and he was almost snapped in two by the ropes we used to tow him. The last of the medicinal rum was used to remove the rocks from our bed-sites that night.

From then on it was straight epithet-plastered Devil's Club, thigh-deep sloughs, Sabre-sized mosquitoes, tangled deadfalls and swamp. They combined to make us a few minutes late for our plane rendezvous, and triggered off a rescue panic.

Luckily time has now done its task of healing the impressions made by this remarkable strip of country, and most of us wouldn't mind doing it all again for another crack at that splendid summit of Mt. Raleigh. Though that is not exactly what we said at the end of the trip.

STANFORD COAST RANGE EXPEDITION, 1954

By Gilbert Roberts And David Sowles

One night in January, 1954 a group sat looking at slides of the Waddington area of the Coast Range. Before, they had talked vaguely of organizing an expedition to that range of mountains. By the end of the evening the expedition was under way. The problems seemed momentarily insignificant; these mountains could not be ignored. The 'hows', financial and otherwise, would just have to work out.

There were six of us, all Stanford students. Jack Maling. who is a graduate physics student, directed his talents toward keeping stoves running and Bramani soles nailed on. He did it all cheerfully and conscientiously. He even repaired a broken ice axe. Gary Driggs, better known as 'The Reverend', who is currently doing mission work in Finland, climbed strongly and was always smiling, no mean feat considering the weather and the rips in his tent. Dave Sowles, an English student, kept a detailed journal and experimented constantly to discover the most bohemian method of wearing a down jacket. The result didn't seem to impair his climbing abilities. Nick Clinch, a law-student and our cinematographer, thrived on paper work. He was happiest with a checklist in hand and his organizing work was invaluable. Bob Brooke was our practical scientist. He brought his geologist's hand lens with him and after five weeks was able to inform us that the Coast Range was probably granodiorite. His other qualities included sleeping 20 hours out of 24 during storms, and quietly doing more than his share of the work. Our medicine man, Gil Roberts, brightened visibly when it appeared that a band-aid would be needed. As the biggest member of the party, he was frequently pressed into service to test snow bridges or to improve steps.

The six of us began our preparations and soon learned that Andrew Kauffman of Washington, D.C., was also planning a trip to the area. When it developed later that the other members of his party couldn't go we were very happy to include him in our group. His 1946 St. Elias experience proved very valuable and his efforts at such things as the building of an igloo did a great deal to make life more comfortable. His State Department affiliations seemed not to have dulled a fine sense of humour, but his habit of clean-shavedness was shocking to some.

After considerable purchasing and packing in Seattle, and a brief foray on Mt. Rainier in a high wind, we left early on June 25 for the Coast Range in Kenmore Air Harbor's Norseman. In Vancouver we reclaimed Nick who had gone up early to iron out customs difficulties. A few hours later and we had landed at Dumbell Lake and were bushwacking our way to the Tellot Glacier. By evening we had reached the snout of the glacier, where we stopped. The next day was threatening as we slogged our way up the Tellot. Because of the soft snow and poor visibility, it was noon of the third day before we reached our base camp site on the Upper Tellot. This was about half a mile east of Dragonback Peak and half a mile south of Mt. Shand. The site, on top of a rock outcropping, was used by a party of eastern climbers the previous year.

The next day, June 28, was clear but with a ceiling at about 8,000 feet. We were quite pessimistic about our air drop, but nevertheless marked a drop site and then scrambled up Dragonback. In the middle of the afternoon the plane came up through the clouds. An excited and happy group, we spent the rest of the day collecting the bundles as if they were Christmas presents. It turned out that we could not have had the drop on any other day in the next 2½ weeks. We would have been hungry long before that. Our supplies came through in very good shape with a recovery of 53 out of 54 bundles, one from the bottom of a 65 ft. crevasse. Gary's stunned: "It's mine", echoing from that crevasse, as he identified his personal gear, was the remark of the day.

That night the weather closed in and we remained in our tents until July 2, with occasional emergence to clear tents and build an igloo. It was to serve as our kitchen and conference room for an entire month. July 2 was a fine day and we split into three climbing parties. Driggs, Brooke, and Sowles made a first ascent of Tellot Spire, a point half a mile west of Dragonback, and also climbed Mt. McCormick. Maling and Roberts climbed Mt. Dentiform, and Kauffman and Clinch climbed Mt. Serra III. They were able to find the best route up this peak and have a look at the ridge leading to the peak of Mt. Serra IV—highest unclimbed summit in British Columbia.

They decided that a traverse over Serra III was the most reasonable route for an attempt on this peak. The weather degenerated during the next two days although relatively easy ascents of Mts. Shand and Heartstone and both peaks of Argewitz were made by various members of the party. Then the 'big storm' moved in.

On July 6 Maling, Driggs, Kauffman, and Roberts were able to scout a route through the upper icefall of the Radiant Glacier in preparation for an attempt on Mt. Tiedemann. The four barely regained camp. The storm suddenly worsened with 40 mile per hour winds and visibility about 50 feet. They stumbled into the igloo, ropes, crampons, and all, beards and clothing covered with ice. Finding a camp on the upper Tellot by compass was more luck than anything else and we were careful to willow wand all routes after that. We remained more or less in our bags until July 12, when the sun broke through and we dried out.

On the 13th Roberts, Brooke, Maling, Clinch, and Kauffman made an ascent of Serra I which proved fairly difficult due to ice and snow on the rocks. The slab route of previous ascents proved impracticable and our route on the SE face involved one direct aid pitch and some danger from falling rock. Sowles and Driggs did a long day's climbing on the upper Claw ridge. They made an upward traverse on the north face of Claw Peak, and then followed the west ridge to the summit. From here they made two rappels to the notch between Claw Peak and Harvard Claw. Three high-angle leads provided rock-climbing reminiscent of Yosemite Valley, with several pitons for safety. They left the summit quickly and rappeled to the next notch in the ridge. There were three Claws then between them and the col from which they could regain the glacier. They turned California Claw to the south, climbed Stanford Claw to a very exposed summit, and rappelled once to the next notch. The last Claw, a pencil-shaped shaft, offered no visible route, so they hurried by it as the sun set. Reaching the glacier, they started the long walk home, arriving in time to celebrate Gary's twentieth birthday.

The following day the entire party left for Radiant Glacier, to attempt Mt. Tiedemann, third highest peak in B.C. This peak had been climbed only once, by Rex Gibson, Henry Hall, Sterling Hendricks, and Hans Fuhrer. We hoped to find a new route via the Radiant Glacier. We descended the upper icefall between the Tellot and Radiant Glaciers. Dubious looking séracs helped maintain a brisk pace. At the lower icefall the party divided. One group traversed the shoulder of Mt. S, preferring a gain in altitude and soft snow to crevasses and séracs. The second group felt confident it had picked a successful route through the lower icefall, and this proved to be the case. Objective danger in the second icefall was very slight and their route was used by all on the return trip. Camp was made in the spectacular glacial basin beneath the northeast face of Mt. Tiedemann. Later as the temperature fell there were several huge avalanches down the 5,000 ft. north face of the Serra ridge. From this camp we could see a fairly promising route through the first 2,000 feet of the Radiant icefall. This section was very broken up and because of sérac danger we hoped to pass it before the sun hit it. Above that the glacier flattens out somewhat, but several large crevasses were in evidence, which might stop us completely if no snow bridges existed. The final 1,500 feet

of the climb would involve a traverse to below the Mt. Tiedemann-Damocles Peak col, up to that col, with a possible problem in the bergschrund, and then a long steep snow ridge to the summit at 12,800. This last part appeared technically easy, but snow in an avalanche condition could make any part of it impassable. We were on our way at 4:30 the next morning, July 15.

Though it was three hours before the sunrise the snow was very soft and we frequently sank to our knees. It was exhausting work but with seven of us and changing the lead every thirty minutes, we gained altitude fairly rapidly. At 7:00 the sun hit the slopes above us and a large sérac toppled to our right. We increased our pace and thirty minutes later made our exit from the danger area by passing directly under a tottering sérac, which provided a climax to our anxiety by dropping bits of snow on us. We had a second breakfast after this and then began a tiring slog up steep loose snow. About 200 feet higher Bob Brooke, who was leading, stopped suddenly and upon being questioned as to his difficulties, replied, "This is the biggest damn crevasse I've ever seen." It was a few minutes before we found a possible route. An enormous sunken bridge connected the two walls, but the upper lip overhung for ten feet and above that leveled off to near 50 degrees.

The rope of Roberts and Sowles was closest to the bridge, so they plowed up a slope to the lower lip and Roberts climbed down onto the bridge. Brooke and Maling came up and the two ropes were joined so that a belay could be given from the lower lip. Sowles took a shoulder stand from Roberts and using two ice axes, climbed over the lip and up to a belay position. The others were then able to negotiate the lip with a belay and a hand line. Several other large crevasses were encountered but they were all adequately bridged. Any of these might have prevented an ascent later in the season. The route was uncomplicated but laborious from here to the slope below the Mt. Tiedemann-Damocles col. We were pleased to find the bergschrund full of snow. The slope was not as steep as we expected, although the snow was soft. We eventually reached rock outcroppings and gained the col. It was 3:15 and we were all extremely thirsty. The ridge was rock for about 200 yards from here and we belayed till we reached the final snow arête which led 900 vertical feet to the summit, which we reached at 5:15.

Mt. Waddington gleamed with ice to the west. None of us had ever seen a more evil-looking peak than the summit tower itself. We all felt it would require several days of good weather to prepare the mountain for any attempt. We took many photographs but in fifteen minutes we were starting down from the cold summit. We were filled with a great sense of group accomplishment; we had succeeded as a team in making the ascent. None of us could remember enjoying a climb more. We hurried along the arête and then down the slope to the glacier. Our steps had frozen here in the afternoon shadow, and lower a breakable crust made walking awkward. Still we moved swiftly. A rappel put us past the difficult crevasse. Bob Brooke, our lightest man, was given the questionable honor of coming down last and jumping the lip. The snow became softer and softer as we lost altitude.

A melt-tarp full of water loomed larger and larger in our dehydrated minds. Finding it completely dry from evaporation was certainly the low point of the day. We plowed our way into camp at 9:30 and melted snow from then till very late at night.

The first thing we noticed the next morning was the sky, a dirty grey. The good weather had run out. We climbed back up to the Tellot as the temperature slowly dropped and visibility was cut. Near the top of the upper icefall a falling sérac had obliterated our tracks for 75 feet. We had noticed it on the descent; we wondered just when it had collapsed. At base camp it was cold and windy, but it was also home. For the next seven days we left our tents only for brief moments. Each morning we hopefully opened our tent flaps and gazed out only to be met by snow and mist. The progressive disappointment and frustration as day after day passed was keenly felt by all. We

wanted to climb Mt. Waddington and Mt. Serra, the major objectives of our trip, and we felt the chances slipping quickly through our fingers. At some point we decided that July 23 would have to be good or time would not permit an attempt on Mt. Waddington. By July 22 we were very discouraged, but the next day arrived clear and warm.

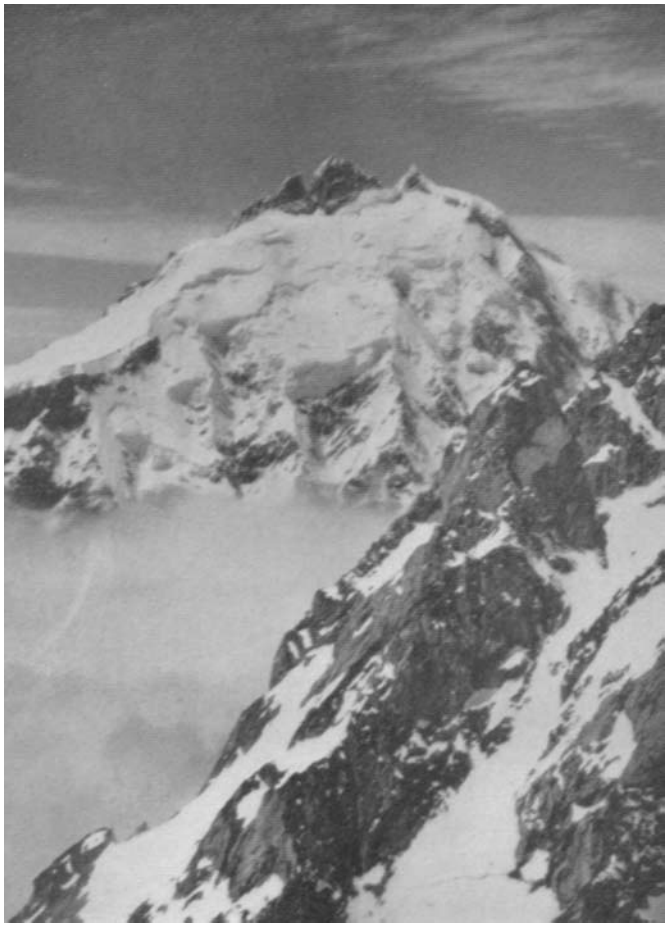
We decided our best chance for success would be to divide the party. Together we could only try one objective; split we could try both and might get one. The attempt on Mt. Waddington would require a larger party, so four of us, Roberts, Maling, Brooke, and Driggs, packed for that. The others would wait for a day or more to allow the new snow to consolidate and then try Mt. Serra. It was July 29 before we were all back together in the igloo again. We had failed on Mt. Waddington, but Mt. Munday had been climbed, and a first ascent of Mt. Serra was to the expedition's credit. Seven other minor ascents had been done but they were forgotten for a moment as the two groups told each other of the climbs they had made.

It wasn't till the 25th of July that the three who had stayed on the Tellot made their attempt on Mt. Serra. Because of the length of the climb, Nick had suggested that Andy and Dave make the climb without him. One o'clock and Nick's wrist alarm went off. The pack was ready, so they ate their Grape-nuts slowly and stamped a little in the cold night air. At two the rope was on and they were traversing the slope above camp and going in a long curve up toward the Serra ridge. By four they had crossed the bergschrund below the Serra II-III col and the sun came slowly up as the last steps were cut and the col reached. Kauffman knew the route to Serra III from his previous ascent, so no time was wasted as they made steps and climbed the short rock pitches. They left one fixed rope after a 50 ft. rappel to pass a gendarme, and by 7 :30 were enjoying a bit of cheese on the summit of Serra III. From there the roar of an avalanche on Mt. Munday sounded surprisingly loud. It seemed a very long way to the summit of Mt. Serra, better known to us as Serra IV. The ridge ran north and east like a staircase. It was a mixture of snow and rock, with the snow wind-sculptured to a knife-edge, and the Radiant Glacier on one side and on the other the Tiedemann.

They dropped down off Serra III and made steps on the edge of the snow to a col and up to the top of the first gendarme. Instead of continuing along the top of the jagged ridge, they dropped down onto the west face of the ridge and began traversing in a northerly direction along a ledge system. The weather had been deteriorating all morning. Far to the west they could see banks of clouds boiling up over the Arabesque Peaks and beyond them a solid ceiling of white to the horizon. After noon drifting clouds and mist obscured their view and cut down visibility to a few hundred feet. Now and then it would clear a little and they would see the tower of Serra IV as if through a window. They could see now there might be a definite problem in getting both on and off the last gendarme before the tower. If they could bypass it ... Reaching the end of the ledge system, they saw that it ended at the head of a rotten ice-filled gully. This dropped parallel to the ridge, on the Tiedemann slope, to a point beyond the gendarme. They decided the possibility of avoiding the gendarme, which had appeared the crux of the climb from the vantage point of Mt. Tiedemann, made a descent worth while. Seventy-five feet down they set up a fixed line and descended another 120 feet. At that point they left the gully and circled the base of the gendarme to just below the ridge. One high-angle rock and rotten snow pitch, and they were back on the main ridge. Taking a little food and their cameras, they left the pack there, wedged behind a rock. One more crucial pitch on rock thinly covered with snow and they walked along more sharp snow to the base of the summit tower. The question in their minds was answered quickly and they happily climbed seven last moderate rock pitches and stood on the summit. It was near 4:00 and they had made the first ascent of Mt. Serra. It had been the highest unclimbed peak in B. C. The weather was growing

N. Peak Of Mt. Munday
From Below Bravo Pk.
Photo G. Roberts

Mt. Waddington From
Mt. Dentiform.
Photo G. Roberts



Left to right:
Serra III, IV, V, Mt. Asperity From Shoulder Of Tiedemann.
Photo G. Roberts

Left to right:
Serra IV And Serra V, Mt. Asperity.
Photo G. Roberts

Camp for Tiedemann climb in foreground.

definitely worse now, with a strong wind bringing fog up from the Tiedemann. The main feeling was not of success but of isolation. They were approximately fourteen hours out on the end of a very long limb. About 2,500 feet below on the slopes of Mt. Waddington their friends had turned back. The brief spell of good weather seemed over.

After a moment they left the tower and hurried carefully back to the pack. One rappel, and shortly after that they had recovered the extra rope and were moving efficiently up the ledge system. The steps were ready and it was not very long before Sowles made an entry in the register on Serra III and the two of them ate a little chocolate. It was snowing now a little and blowing hard. They wanted to get down very much. Going very rapidly they passed down the ridge and in a driving wind reached the bottom of the fixed rope. The quarter-inch line was whipping wildly in the gale which had worked up now and it was snowing harder. They fought with it for ten minutes or so, and finally they gave it up. A short descent down an icy chimney and a vertical pitch led back to the ridge. One last rappel and they scrambled down to the Serra II-III col. Putting on their crampons, they descended the steep slope to the bergschrund. Some steps had to be recut and they forced themselves to move slowly and carefully. Beyond the bergschrund they hurried down the glacier, following their tracks, glissading and trotting toward camp. The sky cleared as they passed Dragonback. They woke Nick and began heating the soup he had prepared. It was 9:00 p.m. Sleep came easily after the nineteen hour climb.

The Waddington group had dropped the 4,000 feet to the Tiedemann Glacier the afternoon of the 23rd, and started the climb to Bravo col early next morning. Snow conditions were appalling. An hour after sunrise they were breaking through above the knees with their 60 lb. packs. At 2:00 p.m. they stopped and pitched camp. At midnight they were off again and by dawn had reached a point about 300 feet below the col. Here a council of war was held. Even at night the snow conditions were exhaustingly bad and the group realized that to put a camp at the foot of the summit tower would require another long day. This would leave two days at best to attempt Waddington, before starting back to Tellot camp, in order to reach Dumbell Lake in time to meet the plane. The summit tower appeared even more icy than it had been during the Tiedemann climb. Ominous black clouds were drifting in from the west and a storm was almost a certainty. They realized that should it be another long spell of bad weather they would have a difficult time getting down and back to the Tellot. After considering all the factors, the group sadly decided to retreat without an attempt on Waddington.

As they started down, a huge avalanche came off Mt. Munday's north side and swept over ¼ mile out onto the Tiedemann Glacier. On the way down, a broken step led to a slip, which was easily checked, but resulted in the loss of part of a load, including Brooke's prized down jacket. It came to rest in a 90 ft. crevasse. Cheered by the others, Bob rappelled after it enthusiastically. A while later he reappeared with the jacket in his teeth. Two more hours and the group reached the Tiedemann and camped near a surface pool—welcome after weeks of 'poncho juice' and 'primus water'. That night and the following day were stormy and they were glad of their decision to retreat. July 27 was clear. They waited until 6:00 p.m. and then started for Mt. Munday.

The route lay up a prominent rib on the north side, to a long snow ridge connecting with the summit plateau. After completing the rock climbing, they had supper and waited for the snow to harden a bit. The evening was cold and for the first time in the trip, everyone was eager to kick steps ... to keep warm. At 2:30 a.m. they reached the plateau and bivouacked until first light made route finding easier. Putting on boots as hard as cement blocks, they pushed on when it came. They reached the highest of the three summits at almost the same moment as the welcome sun. To make

the climb official, Driggs was belayed out to the highest point—a mushroom of rotten snow. After enjoying the spectacular early morning views of the Franklin Glacier, Mt. Waddington, and Ice Valley, they hurried down. Some steep steps required backing down but most of the descent was very swift. They were lolling in the sun on the Tiedemann before noon.

They arose at three the next morning and regained the Tellot before the snow softened. At camp they were greeted by the good news that Kauffman and Sowles had succeeded on Serra IV, and that all three had climbed two of the Four Guardsmen on July 24.

The 30th was a sunny day, so Driggs, Maling, Clinch, Brooke, and Roberts set off for the Serra ridge. After gaining the col—the steps being recut for the third time—they removed their crampons and split up. Driggs, Maling, and Clinch started up Serra II. The ridge was covered with snow and Driggs made a fine lead on the west face which required several pitons for protection before the summit was reached. Brooke and Roberts ascended Serra III, a very enjoyable climb. They found Sowles' fixed rope on the gendarme and used it to prussik directly out of the notch on the descent, rather than traverse onto the Tiedemann face.

We were to meet Kenmore and their planes on the third of August. Five of us wanted an extra day at the lake, so on the 31st Malings, Driggs, Kauffman, Clinch, and Sowles left Tellot camp. It took a day to traverse the glacier and camp in the first fringes of the bush. The group separated just before this, with Driggs and Clinch making a visit to Nabob Pass and the others going on to camp. On the first the two groups made the long, hot, tiring pull over the ridge and moved down to the lake shore. The rise of the undergrowth and the creek made the trip out harder than expected. On the third Bob and Gil arrived,, wading the channel to Serendipitous Isle with obvious pleasure. That day went very slowly. We heard 10 planes by 8:00 p.m. A few minutes later two actually arrived.

We flew to the head of Bute Inlet that night and slept on a game warden's boat. The warden, Alec Cooper of Whaletown, B.C., filled us with ham and eggs till very late. Early in the morning he waved goodbye to us, and we saw the last of the Coast Range. It faded slowly as we neared the sea.

SNOW, ROCK AND ICEFALL PEAK

By Pim Karcher

In early spring I find it difficult to recall the rigors of a strenuous mountaineering expedition. And these potential rigors somehow escaped me when I nodded tacit agreement to Sterling Hendricks' proposed trip to the Lyell Icefield and unclimbed Icefall Peak of remote Bush Mountain. After all, timberline camps, an airplane drop, and being landed on Glacier Lake would make this year an easy trip. In my opinion, the "easy" part did not materialize but what did was a successful and most enjoyable mountaineering summer.

Jane Showacre, Sterling Hendricks, Don Hubbard, "Pete" Peterson, Ken Karcher and myself assembled in Calgary and amid Stampede confusion, were able to collect supplies and take off in the Foothills Aviation two-engined Anson for the drop. We climbed for 28 minutes out of Calgary, flew at about 12,000 feet, and dropped supplies at an elevation of 400 to 800 feet. All our famous Canadian peaks were paraded before us in unmatched splendor while many a vivid prior climb was recalled.

The Southwest Lyell Icefield in the late evening sun looked like one of the coldest and most inhospitable places in the world. Our first plane bank to line up for a drop run was accomplished at about a 45 degree angle in the midst of a down draft. The slowly but persistently approaching wall of a mountainside left all of us wondering if our mountaineering was going to begin and end at this point. Even our strong, silent members were vocal about this particular experience.

The next day found us at the Saskatchewan River warden's cabin shouldering our packs. In our eagerness to get into the area we blundered into more hardships than I had anticipated for the entire trip. We tried to drown ourselves in the Mistaya River in order to save a couple miles of up-hill back packing and came remarkably near being successful. Our roped crossing netted us one lost hat, one lost pair of glasses and one wrenched knee. A brief attempt at travelling "as the crow flies" left us thrashing around in bush for two hours before locating the three-foot-wide trail up the Howse River. Very high water in the Howse almost stranded us at the crossing to Glacier Lake and Don and Sterling spent an hour in the waist-deep cold water locating a just barely passable ford. Camp was made just beyond the crossing with my illusions about an "easy" summer already shattered.

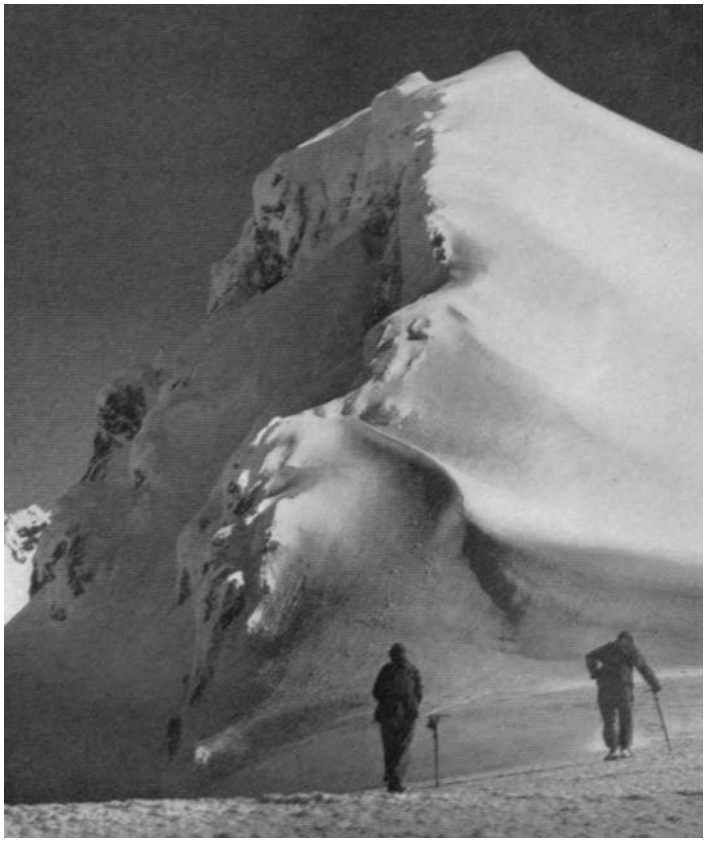
As you can gather, the plane had not landed us on Glacier Lake and it was the end of the third day when we looked out over the snow bowl of the Southwest Lyell Icefield where our supplies were scattered. Three of us proceeded to consolidate all 27 bundles while the other three relayed packs and set up camp in a wind schrund. Jane swooshed back into camp to prove that part of the party would be ski borne. The three sets of skis with only protruding boards at each end had survived the drop without accident.

It started to snow and we suffered through five nights of camping on snow—and I had been promised timberline camps. Ken, the skeptic, had dropped a gallon of gas for our one primus stove. Whenever there was a slight break in the weather, we were out skiing ... at least my notes did refer to it as skiing and Jane receives first prize for long downhill runs.

Lyell Peaks No. 2 and 5 were conquered by Pete, Jane, and Ken on the first day it really cleared and they were rewarded with views of the most distant peaks in all directions. They had carried the skis to a point high up on the shoulder of Number Five and glided back into camp in grand style. Don and Sterling had departed westward with one of the tents in the hope of establishing

Icefall Peak With Rostrum In Background.
Photo Alvin E. Peterson

Ascent via left snow slope in partial shade.



Lyell No. 5.
Photo Alvin E. Peterson

our timber camp for the attack on the extremely spectacular Icefall Peak. The day had yielded such fine weather that they established camp in the first ridge col and then made the first ascent of Mt. Lens which forms the west retaining wall of the icefield.

The next day we broke camp and followed in the tracks of Sterling and Don which brought up to the col on the Lens Ridge. It would be an understatement to say that we were shocked to find their tent in a half pitched state on the rocky ledges of the col. This halted our further westward progress and we waited for their return from what we thought must be an additional reconnaissance before moving camp. The view toward Icefall offered a confusion of ridges which looked like a possibly difficult and energetic undertaking. In the evening Sterling and Don appeared as two small dots on the next ridge and in short time reported a possible route to the base of Ice fall and a meadow for our Icefall camp. Meantime, we were in the col without timber, without gas, and without a stove. Jane hopped on her skis and was back from the cache in less than an hour and a half with stove, gas, and a collection of luxury food items.

Sunset ushered in a thunderstorm with orange-gray clouds and in the role of on-lookers we all enjoyed it as it passed close at hand. The morning was rainy but by afternoon we were on our way to the meadow camp via two more snowfields and two more ridges. On the first ridge our rest was accompanied by Sterling's discussion of the intricate method of tying a packboard that would stay tied. Half way down the steep snow slope the party was stunned to watch half the contents of Sterling's packboard go careening down the slope ahead of us. Needless to say, the touchy subject of tying packboards was avoided for the next two days.

At least we were in my promised timber camp and over the roaring fire plans were made for the next day's attack on Ice-fall. It is the 10,420 ft. unclimbed north peak of Bush Mountain. The higher Rostrum Peak had been climbed in 1936 after using a boat part way up the Bush River for an approach from the west. Bush Mountain is an isolated massif which supports many fine glaciers. Icefall Peak itself is hung with several glaciers and leads to ample discussion of feasible routes of which there are not many. Don, the human alarm clock, was set for a 5 o'clock departure and had us on our way as scheduled.

At the outset, the climb was fraught with a problem of route finding. There was general agreement on the upper snow slope that should be our goal but it took Sterling's ingenuity to weave around the confusion of lower ridges. The properly selected glacier tongue afforded access to rock ledges where the climb turned directly upward on the steep snow slope toward the summit. We had assumed that this slope, which was without avalanche tracks, was the only slope that wouldn't avalanche. As it turned out, it was the only slope that hadn't yet avalanched.

For two hours we moved steadily upward on a small, barely perceptible, razor edge of snow that diverted the numerous avalanches to one side or the other. Watching the surface snow build and hiss by, and then roar over cliffs far beneath us left my nerves considerably frayed by the time we finally moved to our left and the security of a rock outcrop.

By 12:30 we were on top. Icefall Peak affords excellent views in all directions. Peaks of the Clemenceau region, the Goodsirs, the Adamants, and Sir Sanford, were easily identified. Our return to camp down the slope was swift—we literally ran back to camp.

Mt. Kemmel, 10,160 feet, rose just back of our timber camp. Three different routes were put on the mountain which means it is more a pleasant walk than a climb. Jane, however, made a full ski ascent to the summit which we all thought was exceptional for her first time on skis . . . and in the summer at that!

Our plans for the rest of the trip were formulated and included traveling to the Mons

Snowfield with a possible attempt on Forbes and Golden Eagle Peak, and return via Forbes Brook and the Howse River.

Sterling got us up for an early start back to the cache. On the way, Jane and I led a primary ascent of Mt. La Clytte, 9,505 feet. At the Lens ridge col we voted in favor of a camp on rock rather than snow, so did not proceed to the cache. In the morning the weather had turned sour again but we packed to the cache, picked up final food supplies and headed toward the Mons area. Thick fog closed in and forced us to halt. A camp was established on a small rock outcrop and for the next three days snow, rain, fog and wind were our constant, unwanted companions.

When the weather finally broke, we had no choice but to follow out the route we had used on the way in. This held little appeal, for each of us was afraid the water would be higher and a crossing of the Howse at the Glacier Lake outlet impossible; thus our exit was accompanied by jittery nerves and unpleasant thoughts. Such suggestions as floating down the Howse on an air mattress or bushwacking downstream met with stony stares.

Our arrival at the Howse River caused gleeful exclamations and ear-to-ear smiles. The level of the river had gone down at least a foot. We actually had fun crossing it. Further to relieve our now less troubled minds, we avoided crossing the Mistaya again by taking a trail to the bridge across the canyon.

After all, this was to be an easy trip.

FIRST ASCENT OF MOUNT IDA

By Alice And Fred Dunn

To the northeast of the ancient city of Troy, indeed flanking and protecting the city, is a mountain known as Ida. Perhaps the C.P.R. explorer, Jarvis, had this in mind when he named the last consequential peak of the north Canadian Rockies, and perhaps not. In any case a Mount Ida (10,472 feet) stands just south of Jarvis Pass and some 85 miles northwest of Mt. Robson. Though snow-covered, the mountains north of Ida are all at least several thousand feet lower.

Twelve miles south of Mt. Ida is Mt. Sir Alexander (10,740 feet) which three decades ago occasioned a flurry of interest, terminated by the Gilmour party's successful ascent in 1929. Previous parties had made their way by a three-week pack trip from Yellowhead Pass to the headwaters of the McGregor River and down the Kakwa Lake Valley to Sir Alexander. Our party found a more immediate mode of entry, the Pacific Western Airlines.

There were four of us, an essentially Harvard Mountaineering Club expedition; James Newell and Fred Dunn, active members, David Bernays of M.I.T., an associate member, and Alice Dunn, associated with a member. As we had been favored with good weather for a warm-up climb of Mt. Athabaska, so we were favored with good weather on July 6. That morning we arrived in Prince George, B.C., by train from Jasper, and flew 100 miles east to the Rockies. In the early afternoon we were deposited on the bank of Jarvis Lake in Jarvis Pass, with an agreement with the pilot to return for us in 23 days. To the south-east was the Kakwa Lake Valley, to the south-west, Ida Creek Valley; beyond was Mt. Ida and the Three Sisters group. Directly south lay a string of mountains that ran south to Sir Alexander.

In general, the east sides of these mountains were far more precipitous than the west. But this was not true of Mt. Ida, our main objective. We planned to attempt Ida from the south and the glimpses that we had of the north flank, visible now and then through the low clouds, convinced us of the correctness of this approach.

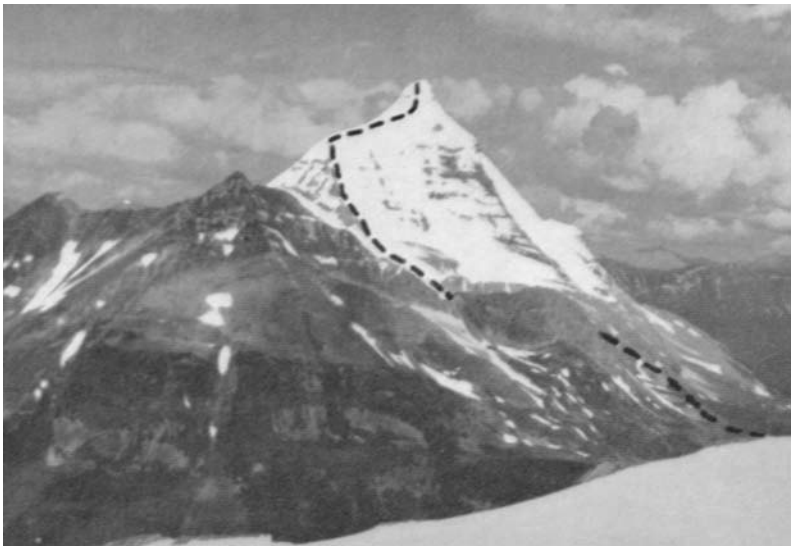
It was three miles from our camp at Jarvis Lake to the Ida Creek gravel flats, around the flanks of a mountain that we named 'Moose'. Despite the occasional aid of a moose trail (we never saw more than the tracks of these creatures) three days were required to blaze a way that we could use, not only at the moment, but three weeks later when the snow had melted and the alder had come into leaf. Several miles and several stream crossings up the creek, the valley rose abruptly. At the lowest waterfall, christened 'Ouzel Falls' for the pair of water ouzels nesting there, we made our camp. Ida was hard behind us; across Ida Creek (soon bridged by a convenient tree) was Mt. St. George (ca 9,600 feet). We agreed that on the next good day we should climb it for the untrammeled view it would provide of Ida.

When the rain stopped three days later, we made our way to the north face of St. George by the 'St. George Glacier'. The flat glacier was straightforward, but as the angle increased so did the crevasses. At last we zigzagged among slim deep cracks and were brought up short by an icewall 30 feet high and slightly bulging at the top. Forty-five minutes and two ice pitons were required to surmount this. From there it was a short walk to the main west ridge which contained a few interesting chimneys of wet, jagged rock. The summit was a nice snow ridge, and just below it was a cairn. Though there was no note, this must have been the "other mountain" which the Gilmour party had climbed from the Kakwa Lake side. The sky was absolutely clear now; far to the south we could make out Mt. Robson. Sir Alexander was magnificent. But our attention was turned to

View South From Mt. St. George Summit—
Photo C.F. Dunn

Mt. Sir Alexander in center.

Mt. Ida (10,472') From S.E.
Photo C.F. Dunn



Ida. The mountain stood like a child-drawn roof, with a steep gables and a long, flat ridge. And a "chimney"—the summit cap—perched on the north end. From it blew a plume of snow-smoke. We planned to move a camp to the little ice lake just south of the mountain. From there we could make our way to the top of the southwest buttress— the south "gable". Certainly we would not try the southerly snowface, not with all those avalanche scars. We could then follow the long horizontal ridge to the 800-ft. summit cap where an ice-filled gash cut through the cliffs and offered a way to the top.

The move to 'Merganser Lake' (a misguided Hooded Merganser was discovered paddling among the icefloes) was marked by a complete change of vegetation. The trees, which in the main valleys were of moderate height, reduced with startling rapidity until at the brink of Merganser Lake, only a few hundred feet above Ida Creek, they scarcely reached our knees. The thick moss-bedded forests gave way to alder and then to meadows teeming with flowers.

Our rising the next morning at 5 was a matter of faith, but as we ate breakfast the sun's rays on the mountain tops indicated clear skies. As there were no discernible differences in the relative merits of the two ridges of the south-west buttress, we chose to climb the nearest. It was not so much a ridge as a corner between two faces. We ascended continually over broken step-like rock, downward slanted and laden with rubble. Our route was actually on the east face; occasionally, to avoid insecure snow we swung to the corner, where we could look straight down the considerably steeper south wall. One or two pitches near the top involved real rock-climbing, but the ease with which we achieved the buttress top surprised us. A short rest, some pemmican, and we moved on, up and over and sometimes around cornices, and then onto a saddle just below the summit cap.

The sun had now softened the snow so that the leader frequently fell hip deep; if he did not, one of the following members did. The snow became more soggy as the angle increased. This unstable snow alternated with bands of down-sloping rock saturated with meltwater and rendered additionally slippery by the detritus which was strewn over the rocks. The ice-filled cleft for which we were aiming became more and more obviously the only reasonable route; on either side cliffs of dipping rock dripped water and pebbles. Standing, waiting, while steps were chipped up the hundred feet, water and ice fragments cascaded upon us. To add to our discomfort, a thunderstorm appeared over Sir Alexander, obviously headed our way. It was clouding up even as we surmounted the gully and the soft snow slope beyond. Now as the summit rounded out, the snow was firmer, the rocks drier. We followed the summit ridge until one last knoll appeared. There was a halt and a change of order, for it had been decided that Alice should lead the summit. She walked the few yards, but did not cheer. The reason was soon obvious to all. Thirty feet away, and a bit higher, was another knoll, attached to the first by a knife-edge of snow. Alice let it be known firmly that she would lead no such thing, so Dave was sent off with a triple belay. Convinced of the possibility of the route, the rest followed him, and we were also joined by a snow flurry. The ascent had taken six and one-half hours.

We had splendid views straight down to Ida Creek and Jarvis Lake on the east, to the 'Sisters Névé' on the west, and of the Three Sisters themselves beyond the névé. To the south the thunderstorm precluded a view and suggested a hasty retreat, but not before we had all taken turns lying on our stomachs and placing our hands on the cornice crest which was the highest point. Then downward we went through the wet gully, back into the soft snow, sometimes sliding with the snow and sometimes sliding on the rock. We made our way along the horizontal ridge. Once around a particularly steep cornice shoulder we felt secure again, and the main part of the storm passed west of us. We sped easily down the buttress edge. Near the bottom we moved onto the

east face, easily avalanching the saturated snow, with a few tossed rocks, and glissading down the tracks.

Back at Merganser Lake we collected what wood the stunted trees provided, and over supper climbed and reclimbed the mountain. And then of course, what should we tackle next? The bad weather had already considerably curtailed our time, yet we wanted to explore the way down to Sir Alexander, circle that mountain, and examine an interesting peak to the south. Also we wished to explore the Sisters Névé, climb one or two of the Three Sisters, and seek a high level connection to the 'Lester' group, an attractive massif to the south-west. Since we all could not do both, Fred and Alice elected to go west, while Jim and Dave planned to head south. The next day we ferried the necessary supplies to Merganser camp, but not before climbing a nice little quartzite peak (ca. 8,200 feet) just south of camp. This peak is an outlier of another mountain (ca. 9,000 feet) first named 'Erastus Titus'. As some of the party objected to the name 'Erastus', a compromise was reached, and the smaller peak took that name, the larger mountain retaining the name 'Titus'.

The next morning Dave and Jim set off in a drizzle for Sir Alexander via the intervening Mt. Kitchi (9,352-ft.) glacier. Fred and Alice remained at Merganser Lake to await fair weather to climb Titus, and explore the névé. The fair weather never came. Dave and Jim camped that night below the Kitchi wall and there they stayed during six days of snowfall. Their Explorer's tent soon drifted over, so they were at least sheltered from the wind. The roaring of avalanches convinced them that even should the storm abate, conditions were impossible for farther progress south.

The Dunns fared somewhat better. After three days of ever more continuous and tempestuous wind and rain, they gave up the idea of the névé trip and packed down to Ouzel Falls. In the protection of the valley the wind and rain were gentler, and base camp with copious wood, and water where it belonged, was luxurious. And while the high country to the south and west remained storm-bound, they were able to climb 'Arch Mountain' (ca. 9,100 feet), a mountain midway between Moose and St. George, remarkable for its precipitous dropoff to Babette and Kakwa Lakes. The next day, while Dave and Jim were digging out and making their way back to Ouzel Falls, the Dunns climbed 'Mt. Dragon' (ca. 8,500 feet), a steep pyramidal quartzite peak just south of St. George. We four met again at camp, but there was no great celebration feast, for we had to preserve our food for the very likely possibility that the weather might prevent the plane's prompt arrival.

Regretfully we left our pleasant camp. Our route was much altered. The snow was gone, replaced now by ferns. And the alder and the mosquitoes had come out in all their glory. It had rained most of the twenty-first day, and all of the twenty-second. That night it cleared and there was some discussion about increasing the supper ration. Prudence prevailed, and next morning the plane arrived. With some of our remaining supplies we made a Klimshake so vast that our appetites were still somewhat dulled on our return to Prince George.

IN THE NORTHERN PURCELLS

By Peter Robinson

In July, 1954, a few members and friends of the Dartmouth Mountaineering Club participated in two expeditions into the northern part of the Purcell Range, which were designated to investigate further certain territory which had been seen only briefly on the high level traverse of 1953. The objective of the first trip of eight days was the Wedge Peak group of peaks, which lie south-west of Mont Brouillard on the Duncan side of the divide. As in 1953 the means of approach to the main range was on the logging road and trail from Parson to the old mine cabin on Vermont Creek. Bill Briggs, Dick Morden (London, England), and the author set out across the flooded Columbia from Parson on July 7 and reached Vermont Creek next day. Unusually heavy snowfall the previous winter had caused a few bad slides which hindered progress, but at higher elevations some of the worst bush was covered with snow. During a period of bad weather (July 10) a series of passes was crossed to a forest camp in the valley of an unnamed creek which drains to Duncan River.

The weather improved on July 12 and a start was made for Wedge Peak ("Unnamed 10,000 feet") at the head of the valley three miles to the south. Wedge Peak Glacier (20 min. from camp) gave moderately easy access to the east col, whence the corniced east ridge was followed to the summit. Returning to the col, the party climbed onto the Barrier Ridge, which forms the E-W divide on the east flank of Wedge Peak Glacier. The ridge was traversed northward for one mile before the descent to camp.

The following day a granite spire northwest of Wedge Peak was climbed by its north-west ridge, requiring 4½ hours of rock and snow climbing. A large, snow-capped summit tower suggested the name "Sugarplum Spire". In difficulty this ridge is nearly equal to Bugaboo' Spire and much more liable to have bad conditions. Fortunately a somewhat easier escape route was found down the west face. A new, direct pass route was found back to Vermont Creek and the party reached Parson the evening of July 15.

The purpose of the second expedition composed of Dick Morden, Virg Day (St. Louis, Missouri), and the author was to explore more thoroughly the region of the Conrad Icefield to the north-west of the Bugaboos. The first few days were spent in getting three weeks' supplies up the Bugaboo road and trail to Boulder Camp. On July 24 an unsuccessful attempt was made to climb Bowser Middle Tower. The bergschrund was crossed and the 50-degree snow slope was climbed to within ten feet of the level of the col, where the ascent was blocked by rotten snow and ice overlaying difficult rock.

On July 26 the party moved across Vowell (formerly Warren) Glacier to Camp "Shaft No. 7" beside the glacier at the head of Malloy's Creek, and the next day made the third ascent of Mt. Conrad. The east and highest peak of Mt. Thorington was climbed on July 28 by its south-east ridge after crossing the Malloy Valley and the 3-mile wide Conrad Glacier. On a rest day the party scrambled up Osprey Peak just north-east of camp, and on July 30 moved camp southward into the first trees on the east branch of East Creek. A long, involved trek on the 31st brought the three to the summit of Mt. MacCarthy, a high peak 3 miles south-west of Mt. Conrad. A new pass was found back to Vowell Glacier and Boulder Camp on August 2. Before leaving the Range ascents were made of Bugaboo, Crescent, and an unnamed spire (9,150 feet) midway between Eastpost and Brenta.

During the course of our climbing a series of vertical angles on peaks was taken using an Abney level. Distances between peaks were measured off on B.C. aerial photo laydown sheets,

Wedge Creek From The Northeast *Photo R. Morden*

From route back to Vermont Creek, Barrier Ridge to left.

Icefall Of The Malloy Creek Glacier, En Route To Mt. Thorington.
Photo R. Morden

Sugarplum Spice From The Northeast
Photo R. Morden

—just above campsite en route back to Vermont Creek.
Ridge of ascent on right.

Traversing The Barrier Ridge. Barrier Peak To Left.
From Color Slide by P. Robinson

and from the results the following list of estimated altitudes was derived. These are based on the altitudes estimated for Carbonate Mountain and Horseman Spire in 1953 by Robert West, who was able to connect with known surveyed elevations in the Spillimacheen Group.

Theoretically the measurements should have been accurate to within 50 feet, but the altitudes are given in tens of feet to make clearer their relative positions. In actual practice the Abney is subject to error because it is not a telescopic instrument.

For two years the author has been of the opinion that the guidebook altitudes for the higher Bugaboo Spires were too low, and. that since they were based on A. H. MacCarthy's aneroid readings of 1916, might be subject to suspicion. These figures below support this opinion. They should by no means be considered final, but the author believes they are closer to the truth than anything published previously.

Stations occupied are underlined. Names given in parentheses refer to the maps—AAJ IX Pgs. 62-63, or AAJ II Pg. 186.

Howser Spire	11,100
Mt. Conrad (Thorington No. 7)	10,720
Bugaboo Spire	10,470
Mt. Ethelbert	10,470
Pigeon Spire	10,300
West Peak (Thorington No. 3)	10,240
Howser Peak	10,210
Conrad West Névé Peak	10,180
Highest of Four Squatters	10,160
International Peak (Carbonate Mtn.)	10,150
Snowpatch Spire	10,110
Mt. Malloy (Thorington No. 6)	10,090
Mt. MacCarthy (Thorington No. 9)	10,070
Mt. Thorington—East Peak	10,000
Mt. Stone	9,980
Mt. Thorington—West Peak	9,970
Vowell Peak	9,930
Horseman Spire	9,900
Mont Brouillard	9,870
Wedge Peak (Unnamed, over 10,000 feet)	9,870
Wallace Peak (Thorington No. 5)	9,830
Mt. Kelvin	9,720
Highest Peak—Crystal Range (Unnamed, 9,800 feet)	9,680
Osprey Peak	9,680
Sugarplum Spire	9,630
Mt. Syphax	9,550
North Peak—Crystal Mtn.	9,500
Crescent Spire	9,430
Barrier Peak	9,430
Highest Granite Peak north of Sugarplum	9,330

Boulder Camp was a beehive of activity this past summer, with no fewer than seven parties present at various times. Unfortunately most were not blessed with our good weather, but three different parties climbed Snowpatch Spire on three successive days.

A few words should be said about commercial activities in the region. The valleys of Spillimacheen River and Vowell Creek are now under a long-term timber management grant to Cranbrook Sawmills Ltd., which plans considerable road building in the future. Information on roads and trails can be obtained from the company forester at Parson. New mineral claims have been made on the upper reaches of Vowell Creek and the old Rocky Point Creek trail has been improved to facilitate access. In late summer there was some activity at the Bugaboo and Copper Butte properties in connection with which the B.C. Forestry has been granted $5,000 for the improvement of the Bugaboo Road. Dr. J. E. Reesor of the Geological Survey of Canada will be doing geologic mapping in the region for the next few summers. When his work is complete we can expect a fairly accurate topographic as well as a geologic map.

IN THE CORDILLERA BLANCA

By Fred D. Ayres

For expeditions seeking goals of something less than Himalayan proportions, the Cordillera Blanca of Peru is a bonanza. This range, more than 100 miles long, abounds in peaks of the 6,000-meter class and offers climbs which range from relatively easy to extremely difficult. The cordillera is only about 700 miles from the equator and enjoys generally mild and stable weather during the dry season from June to September.

Once the distance to Peru has been hurdled, transportation problems within the country itself are seldom serious. In a day one can drive from Lima, the capital city, to the Callejon de Huaylas, the narrow valley or corridor down which the Rio Santa flows, walled in by the Cordillera Blanca on the east and the less imposing Cordillera Negra on the west. Of all the towns in the Callejon, none has a more majestic backdrop than Yungay, which lies directly beneath the towering twin summits of Huascaran. The south summit (22,200 feet) is the highest mountain in Peru and rises more than 2.5 vertical miles above the town.

About the middle of June, 1954, an eight-man party from the U.S. arrived in Yungay for two months of climbing among the peaks bordering the Quebrada Yungay. In our group, George Bell and Graham Matthews were most nearly the Andean veterans. Both had participated in the Yerupaja expedition of 1950 as well as the Franco-American ascent of Salcantay in southern Peru in 1952. David Michael, John Oberlin and Fred Ayres had been members of the Salcantay expedition in 1952, while Leigh Ortenburger, in the same year, had climbed in the Cordillera Blanca with a group from the University of California. Richard Irvin and Alexander Creswell were newcomers to the Andes, but had to their credit a long list of ascents on the North American continent.

In the Callejon, Sr. Cesar Morales, of the Grupo Andinista Cordillera Blanca, received us cordially and assisted the expedition in many ways. By the time we had arrived in Yangay he had already secured for us four porters, Eliseo Vargas, Miguel Flores, Eugenio Angeles and Felipe Mautino. They all proved to be reliable and remarkably capable fellows, eventually carrying loads unattended on ice to camps above that 18,000 ft. level. In fact, toward the end of the season, Eliseo and Eugenio successfully participated in the ascent of Huascaran.

On June 19 we marched out of Yungay at 3 a.m., preceded by our packer and his long string of burros, with over 3000 pounds of equipment and supplies. Only Oberlin was missing. He was due to arrive in 3 or 4 days. One of the main trans-cordillera burro trails climbs up the Quebrada Yanganuco from Yungay. We were able to make use of this busy thoroughfare far up the canyon until it finally turned to the right and started its long climb toward 15,600 ft. Yanganuco Pass. We continued a mile further up the main canyon and established our base camp that same afternoon in a flower-bedecked meadow at 13,100 feet.

High peaks surrounded us on all sides. To the north, tin-climbed Chacraraju (20,000 feet) walled in the head of the canyon. Closest of all, toward the northeast, was Yanapaccha (17,900 feet), also unclimbed and our first objective. Chopicalqui, 21,000 feet high, was not far away to the south-west. Nearly due south of us the north summit of Huascaran rose 8,700 feet over our heads. Immediately on the west were the four peaks of the Huandoy massif, three of them well over 20,000 feet. Finally, north-west of us, between the Huandoy peaks and Chacraraju, stood 19,000-ft. Pisco, and beside it an unnamed summit about the same height. From all these peaks glaciers spilled down into the Quebrada Yanganuco or its tributaries. Assuredly, here was enough climbing to keep us busy for a long time.

YANAPACCHA (17,900)

For our first or breaking-in climb, we chose Yanapaccha. It was a peak of relatively low altitude, did not appear difficult, and offered the incentive of a first ascent. Starting from a higher camp at approximately 15,000 feet, a party of five reached the summit on June 22 by way of the southwest glacier and south ridge. Meanwhile Oberlin arrived in base camp from Yungay, bringing our group to full strength.

PISCO (ca 19,200)

Our base camp was immediately below a great basin or cirque recessed into the western wall of the Yanganuco Valley. In the south-west part of this basin, at 15,600 feet, we next established a major camp, or advanced base, from which we hoped to climb Pisco and the four Huandoy peaks. Pisco had been climbed in 1951 by a Franco-Belgian expedition, and again in 1952 by the expedition from the University of California previously mentioned. The latter group also made the first ascent of East Huandoy. The main peak of Huandoy had been climbed once, but there were no recorded ascents of the remaining two.

From the advanced base, we moved first for Pisco and East Huandoy, setting up an intermediate camp at 16,400, then a final one in the snow saddle between the two peaks, at an elevation of 17,700 feet. From this camp, on June 29, Ortenburger and Michael attempted East Huandoy (ca. 19,500 feet) but dangerous ice on the rocks of the steep northwest face caused so much delay they were eventually forced to turn back by the late hour. Meanwhile, the remaining six made the ascent of Pisco by the south-west ridge, for the most part a fairly easy climb.

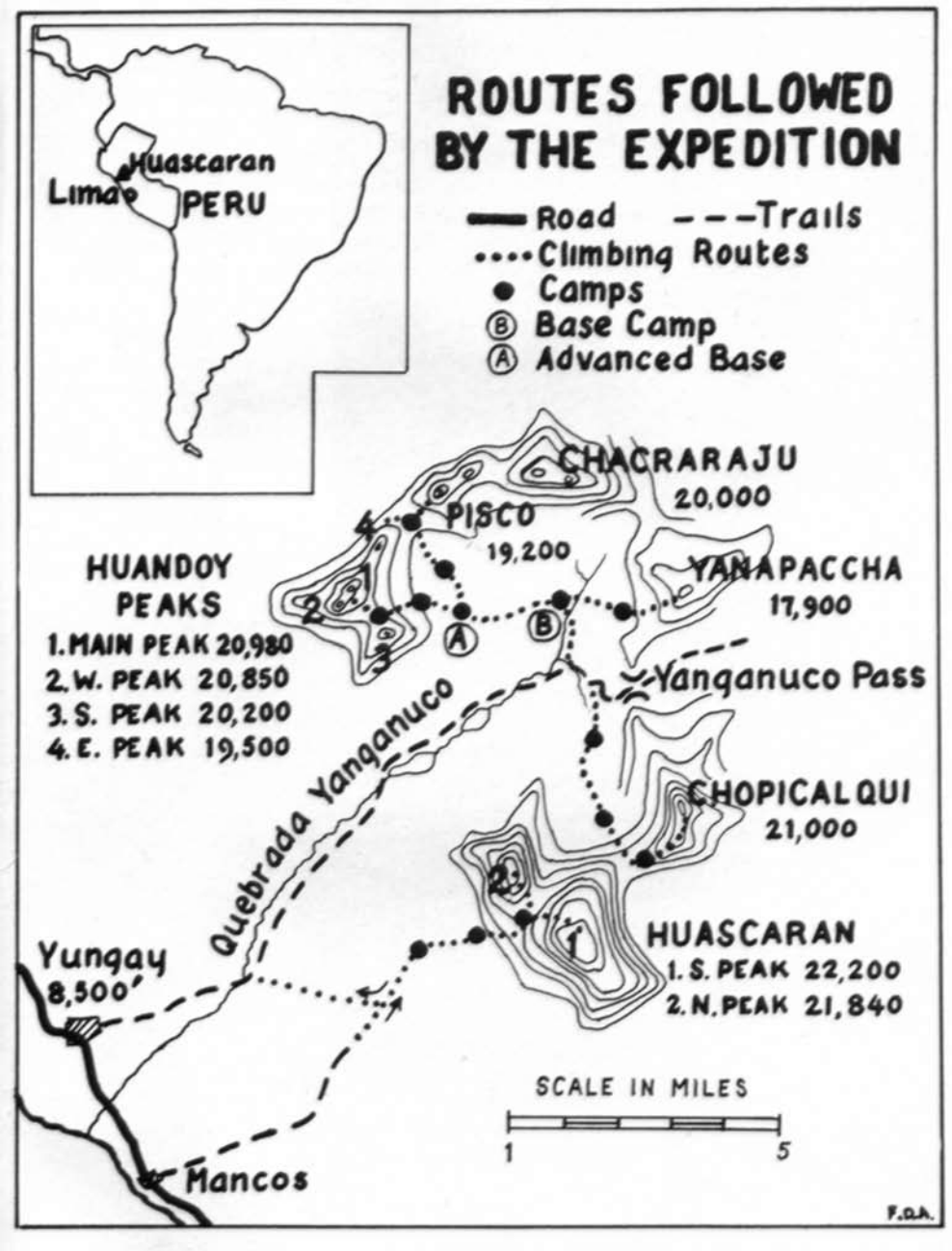
An interval of bad weather prevented further attempts on East Huandoy. We finally evacuated the high camps completely and descended to the advanced base in disagreeable fog and snow. The following morning was clear, but new snow on the cliffs of the cirque made an immediate attempt on the other Huandoy peaks inadvisable. We decided to postpone the attempt in the hope conditions would improve later. After caching the unused food and gasoline, we started down toward base camp. Throughout the descent we could see, on the opposite side of the valley, the beautiful white pyramid of Chopicalqui. We had already decided this peak was to be our next objective.

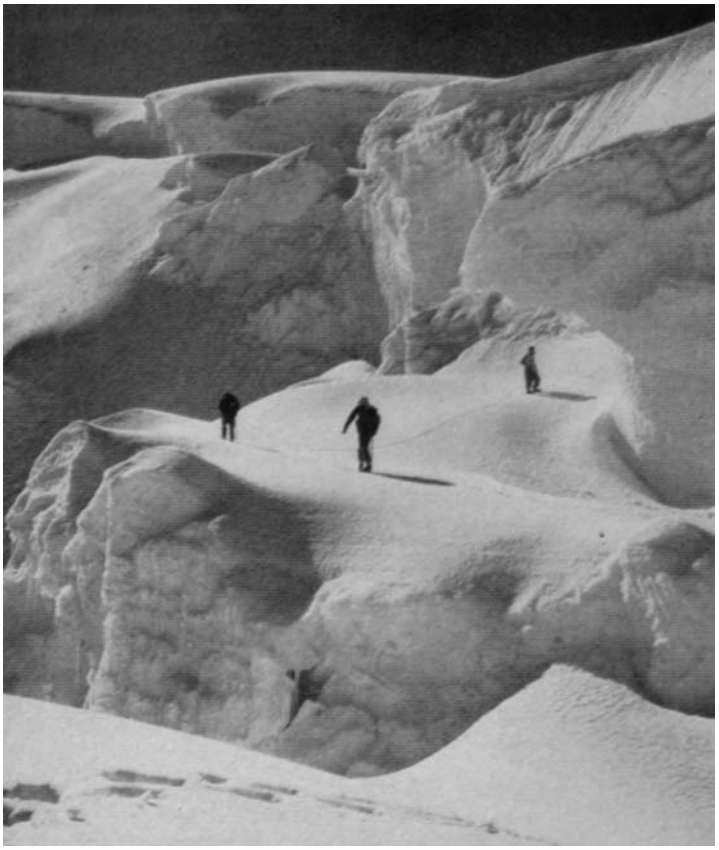
CHOPICALQUI (21,000)

In the Cordillera Blanca, Chopicalqui is exceeded in height only by the twin summits of Huascaran and is matched by just-two others, Huandoy and Huantsan, each a scant 10 or 20 feet lower. Chopicalqui had been climbed only once, by Schneider, Hoerlin, Borchers and Hein, four members of an expedition sponsored in 1932 by the Deutschen and Oesterreichischen Alpenvereins.

Our entire group of eight planned to participate in the climb of the peak, which we estimated would require three higher camps. By drawing names from a hat, a party of two was chosen (Irvin and Ayres) to leave at once and locate sites for the first two camps while the main group was preparing to get under way. A supporting party of two, to follow on the next day (Ortenburger and Michael), was selected by the same method. The final party, consisting perforce of the remaining four, was scheduled to start up on the third day. Everyone then set to work packing food and equipment for the first two, who were to be accompanied by the porters with an initial relay of supplies.

Shortly after daybreak the following morning, Irvin and I left frosty base camp just as the porters were beginning their breakfast, and walked down the Yanganuco valley half a mile to the


ROUTES FOLLOWED BY THE EXPEDITION
Road
Trails
Climbing Routes
Camps
Base Camp
Advanced Base
Huascaran
Lima
PERU
CHACRARAJU
20,000
PISCO
19,200
YANAPACCHA
17,900
HUANDOY PEAKS
1. MAIN PEAK 20,980
2. W. PEAK 20,850
3. S. PEAK 20,200
4. E. PEAK 19,500
Yanganuco Pass
Quebrada Yanganuco
CHOPICALQUI
21,000
HUASCARAN
1. S. PEAK 22,200
2. N. PEAK 21,840
Yungay
8,500'
Mancos
SCALE IN MILES
1
5
F.D.A.



Route Through An Icefall On Pisco.
Photo Fred D. Ayres

View Northeast From The Top Of The Main Huandoy Peak.
Photo Fred D. Ayres

Right background: the two summits of Chacraraju. Left background: The Pyramid. Middle distance: Pisco (in sun), Unnamed Peak (in shade). Lower left: east peak of Huandoy.

mouth of its south fork. This southern branch leads up into the two-mile-wide cirque enclosed between Chopicalqui on the east and the giant bulk of Huascaran on the south and west. From the cirque, two glacier tongues descend on either side of a central island of rock, then unite and flow on down the canyon an additional 1.5 miles.

Irvin and I climbed up the highly scenic south fork and veered left into the deep, V-shaped trough between the cliffs of Chopicalqui and the east lateral moraine of the glacier. We were pushing ourselves slightly in order to maintain our lead over the porters. From past experience, we knew they soon would be on our heels in spite of their heavier loads. We were scarcely surprised some time later when we spotted four figures coming out into an open meadow about half a mile below us. A closer look with binoculars revealed that they were indeed our porters, bent forward under their loads and moving at a peculiar sort of weighted-down half trot! Startled into activity by this sight, we turned and began walking energetically up hill again. We had scarcely selected a campsite at the far upper end of the trough when all four porters came in, blowing like winded horses, but still in ebullient spirits. It was never determined whether they were racing us, each other, or doing both. Our campsite (Camp I) was at about 15,000. After helping us set up our Logan tent, the porters returned to base camp.

During the next four days the different parties moved in successive stages all the way up to a final camp (Camp III) at 18,600 feet, located in a shallow snow col on the southwest ridge of Chopicalqui. The porters were below in Camp II (16,900) at the top of the mile long island of rock between the two glacier tongues. They would remain there until time to evacuate Camp III.

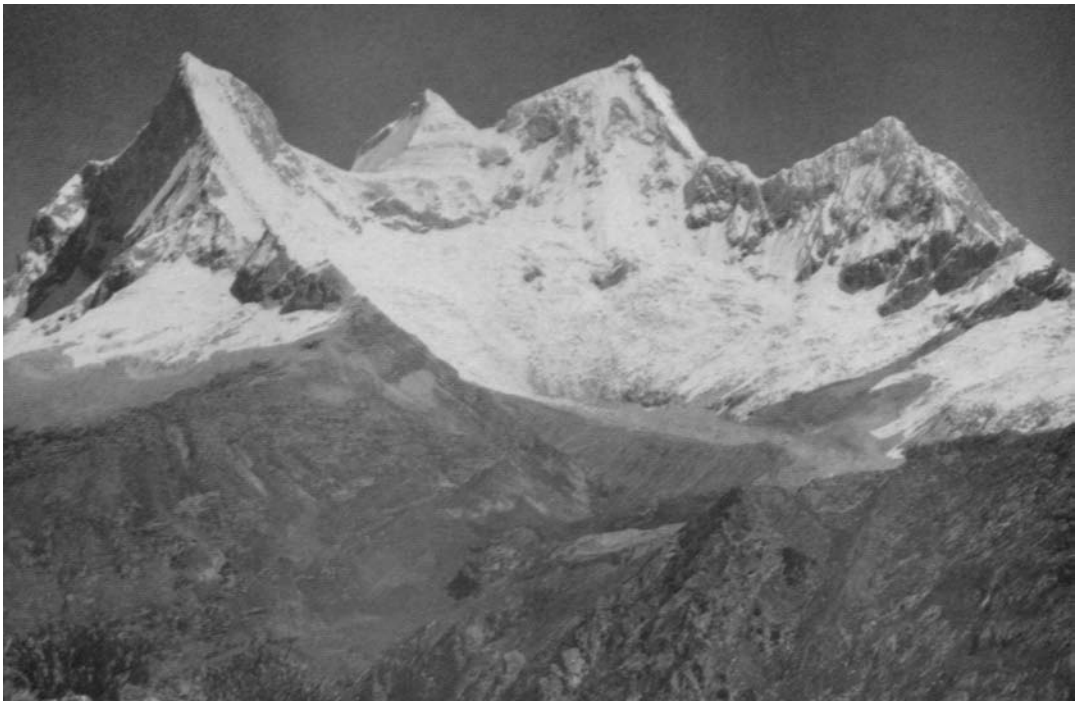
The eight climbers were now solidly in position with food for several days. The summit was still 2,400 feet above us and the route an unknown quantity. On July 10, we made up climbing packs and, early in the evening, squirmed into our sleeping bags, four in the Logan tent, the other four in two smaller tents.

At 4 a.m. Creswell and I, in our two-man tent, were awakened by muffled grunts and the rattling of pots and pans in the nearby Logan tent. Reflecting that occupancy of the roomy, comfortable Logan carried with it the responsibility of cooking breakfast, we smuggled down and ignored the activity for 45 minutes, but no longer. We did not care to miss breakfast altogether.

It was still dark when we crawled out. The temperature was 10° F., there was no wind, and nothing overhead except brilliant stars. Our view southeastward was unobstructed. In that direction I was captivated by my first view of the two Magellanic Clouds, famous celestial marvels of the southern hemisphere. They appeared as two misty areas of light glowing in the eastern sky only a few degrees above the horizon. I was surprised to see that they were larger, more brilliant and farther apart than I had expected. Our nearest galactic neighbors, their light was reaching up across 150,000 light-years of space. Before long they faded in the dawn and we never saw them again.

By the time we had donned crampons and roped up, we were thoroughly chilled and ready to be off. The first thousand feet of elevation involved no technical climbing difficulties but cost us much in energy. The steep, rolling contours of the ridge were deep in loose snow, in which we churned and floundered for long intervals. We changed leads on the first rope and rotated squads successively into the lead position, but even with this relief we were happy when we came to a section of the ridge which, though steep and exposed, was at least constructed of firm snow. Matthews kicked steps up this pitch for 300 feet until it terminated in a snow shelf immediately under a sheer ice wall.

This barrier we had been viewing critically for some time. It was hopelessly difficult at any point in sight. We began following the snow shelf along the wall to the right, an easy choice

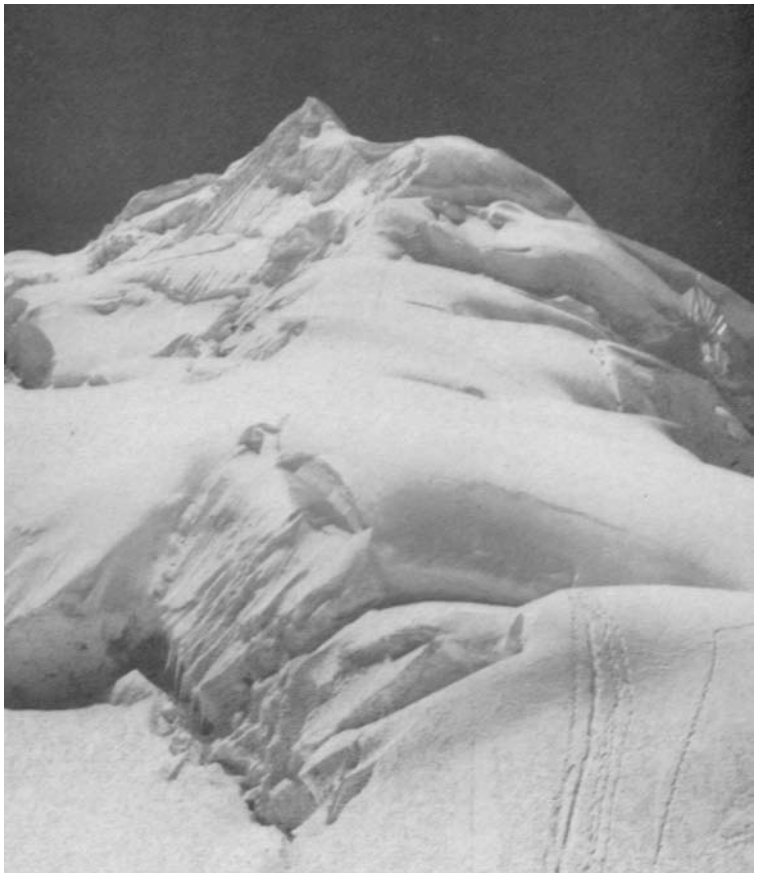


The Huandoy Peaks As Seen From The East. *Photo Fred D. Ayres*

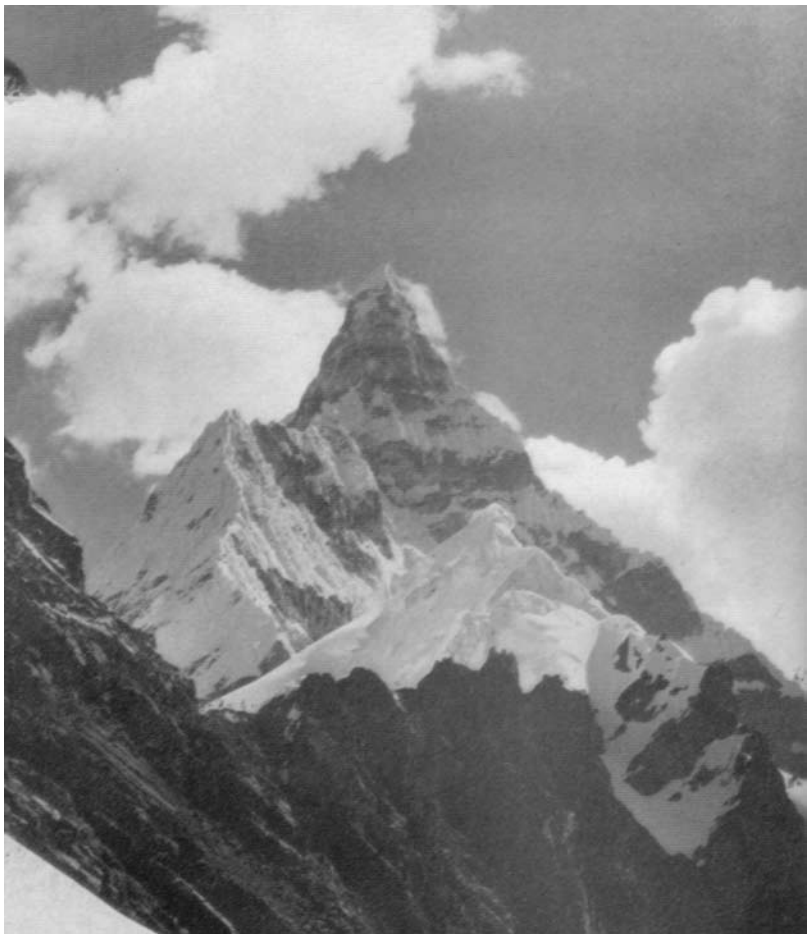
From left to right: South Peak, West Peak, Main Peak, East Peak.

Chopicalqui From Camp 3 At 18,600 Feet.
Photo Fred D. Ayres

Photographed the morning after the climb.



The Summit Of Yanapaccha.
Photo Fred D. Ayres



East Summit Of Chacraraju From The 16,000 Foot Saddle E.S.E. Of It.
Photo Fred D. Ayres

because there was nowhere else to go. As we advanced, the ice barrier slowly dwindled in height, but we were unable to climb above it until we had traversed all the way to the southeast shoulder of the mountain. From there we continued up, following the shoulder until it joined the main ridge only a few hundred yards short of the summit tower. The latter was a handsome structure but we could see no easy way to its top.

About the only possibility was a snow rib which ran abruptly up the fluted face of the tower. As we approached, we discovered the base of the rib was separated from us by a crevasse which opened more or less horizontally back into the tower. The upper lip was at least three vertical feet above the lower, but this did not particularly worry us. Oberlin and Bell each was over six feet tall. Bell spanned the gap with a single lunge and pushed vigorously up the rib, sending a continuous deluge of loose snow down on his belayer, who finally was compelled to seek shelter back in the crevasse. Near the top of the face, Bell had to chop his way through a semi-cornice but this was the last obstacle. The high point was only 200 feet beyond.

Because of the precarious nature of the rib, it seemed unwise for the whole party to isolate itself on the summit at the same time. Irvin and I remained below while the last crampon disappeared over the skyline. Meanwhile a wind had sprung up and fog was blowing in. After what seemed an interminable time, we lost patience and began yelling for more speed above. Presently we were reassured by the appearance of an alpinist descending out of the fog. Shortly thereafter a second one joined us. We hustled up to have our own turn on top, leaving them to shiver beside the horizontal crevasse.

We were amply rewarded for our long wait. Just as we reached the top, the fog miraculously cleared from the summit and we were presented with the stupendous view of the whole northern cordillera. Ortenburger, still on top with his 4x5 camera, was almost jumping up and down in excitement. Huascaran, still lord of the range, looked down on us with both summits, but we were above everything else. Eight thousand feet below us, in the depths of the Yanganuco we could see the base-camp site which we had left six days ago. The problem now was to get back.

Irvin and I were last to leave the summit. We gingerly picked our way down Bell's snow ladder, now pretty well kicked to pieces, and joined the safety detail still at the crevasse. For the most part the descent was rapid, though fatiguing because of continual lurching and stumbling in the deep snow. When we reached the last steep slope just above Camp III, several of us skidded down in a final triumphal schuss, arriving half buried in piles of loose snow. The sun was still a little above the horizon. We had been fortunate in reaching the summit eight-strong all in one day.

Next morning, our variously coloured tents looked gay in the brilliant sunshine. The holiday atmosphere was enlivened by Michael, who began exploding giant firecrackers in the sky overhead. Not wholly exuberance, this was the prearranged signal summoning the porters from Camp II. They responded promptly, and, with twelve people available to carry loads, all equipment was returned to base camp in two days.

RECONNAISSANCE

We now split into two groups and spent nearly a week reconnoitering two possible next objectives, Huandoy and Chacraraju. The first group, reconnoitering Huandoy, climbed up to the advanced base site in the Pisco-Huandoy cirque, then, from this level, contoured far around to the south and west, but found no route which appeared any more promising than the one we had tentatively chosen already, leading up through the great eastern cirque.

The second party, which included the writer, made a five-day round trip to the north side of Chacraraju. obtaining fairly close views of the faces and ridges we had not already examined.

Our observations confirmed those of previous expeditions. Here indeed was a wild and shaggy mountain. Any ascent will certainly be difficult and hazardous. One proposed route, which we had selected in the U.S. by studying photographs, was dramatically obliterated by an avalanche before our very eyes. We finally decided that a serious attempt would require a more sustained effort than we could muster this late in the season. So far as known, no climber yet has tackled Chacraraju. Its summit, when finally attained, will be a prize mountaineering goal.

MAIN (20,980) AND WEST (20,850) HUANDOY PEAKS

Having abandoned Chacraraju, for the season at least, we prepared for an all-out attack on Huandoy by occupying once more the advanced base site (Huandoy Camp I) where we had cached excess food and gasoline after the Pisco climb. Movement of personnel was in relays something like that on Chopicalqui. Just at this time Oberlin, unfortunately, was forced to return to the U.S. His vacation had expired.

On the Huandoy climb it fell my lot to tarry at base camp for three days where I selected equipment for the porters to carry up in relays, depending upon the success of the initial operations. I was kept in a downright ferment by notes, one after the other, which the porters brought down from above asking for more food, more rope and more equipment.

When at last 1 arrived at the familiar campsite about noon on July 24, I found it completely deserted. A search with binoculars finally revealed two figures high up on the head wall of the cirque amongst dangerous looking rock cliffs and icicles. So far as distance was concerned, the party was not far from the saddle between the main and south peaks. More searching with glasses disclosed, more than a thousand feet lower down, in the middle of the glacier, two heads bobbing about, and, close by, the upper tip of what was unmistakably the Logan tent. This, apparently, was a high camp partly hidden by a snow bank. Finally, two more people came scrambling out of the morainal debris not far above me. They proved to be Irvin and Creswell returning from Camp II, the Camp I had seen and the only higher one established thus far. The porters, who had merely frolicked 2,000 feet or so down the mountain to get some wood for a campfire, arrived soon after.

Creswell immediately started back down to base camp with Felipe and Miguel for still more equipment. Irvin reported that things were going well. The climbing party had been Bell and Ortenburger, supported by Matthews and Michael in Camp II. It began to look as if Huandoy might be doomed.

Early in the morning, July 25, Eliseo and Eugenio left with loads for Camp II, Irvin and I following two hours later with additional items. We found Bell and Ortenburger at ease in the Logan. Michael and Matthews were doing their stint up in the rocks and icicles. While we watched during the next two hours, the latter two advanced very slowly over the last of the rocks and onto the snow of the saddle. This solved the first major problem, that of reaching the triangular plateau of névé, at an elevation of about 19,000 feet, enclosed between the West, Main and South Huandoy peaks. In 1932, Hein and Schneider had set up a camp on this plateau and from it had climbed the main peak but not the other two. Their route, which had gone up the cirque wall some distance north of ours, was not usable now because of ice avalanches which repeatedly swept down across it.

When Irvin and I returned to Camp I in the afternoon, we found Creswell with Felipe and Miguel, just returned from base camp with a fresh pile of tents, sleeping bags and other equipment. Meanwhile Eliseo and Eugenio had come back down to Camp I. Early next morning- the four porters left for Camp II with much of the new gear. Creswell, Irvin and I, going up this time to remain in Camp II, delayed our start till later, an action which we soon regretted. The day was

windless and cloudless. We climbed up the steep glacier in a blazing bath of radiation so intense we were slightly stupefied by the heat.

About 300 feet below the camp we met the four porters returning, and with them George Bell! After more than five weeks of continuous climbing, the condition of his feet, severely frostbitten on K-2 less than 12 months previously, made it unwise, as he put it, "to go too far out on a limb". Considering the work he had already expended on the route, this must have been a hard decision. In Camp II we found that Ortenburger, Matthews and Michael, like ourselves, were in a somnambulant state from the heat in spite of the camp's location at 18,300 feet. However, the condition was strictly temporary. Within an hour or two the sun disappeared behind Huandoy and the temperature plummeted to below freezing in a matter of minutes.

There were now six of us in Camp II with Bell and the four porters below in I. At 6 the next morning, a party of five started upward, carrying a minimum of equipment and food for a camp on the 19,000-ft. plateau. Irvin, Ortenburger and Matthews were to remain in this high camp, Creswell and I to return to II. Michael, temporarily indisposed, remained at II all day. The route led up for several hundred feet over hard snow and ice, crossed a major crevasse, then climbed more and steeper snow to a shattered rock slope. The latter was burdened with loose debris and we were relieved to get back on a triangular patch of snow higher up. Nearly the entire route from the crevasse to the plateau was protected by fixed ropes. The advance parties had put in approximately 1,200 feet of it. I was now getting a closer view of the icicles I had seen from below. Those above and near us were menacing, but nothing to compare with an incredible cluster not far to the left. We estimated it to be at least 80 feet high. Above the apex of the triangular snowfield, the route continued up smooth, high-angle slabs for 30 feet, then turned right along an airy ledge to the crest of a short rock rib. Fixed rope, secured by some 8 or 10 pitons had been strung along this entire section. We were now a little over 19,000 feet high. Even with the aid of the fixed ropes, the struggle up the slabs with our packs was exhausting. We climbed up the short rock rib onto a shoulder of snow and then out into the saddle just under the north wall of the South Peak. We were on the edge of the plateau. By 10:30 a camp site was chosen at about 19,300 feet. Creswell and I, after removing all Camp III equipment from our packs, set off in an attempt to climb the South Peak before descending to Camp II. Our colleagues, meanwhile, began building a wall of snow blocks to protect the camp from the gale which seems to blow endlessly through the saddle.

The top of the South Peak was only about 1,000 feet above Camp III, but we failed to reach it. What had appeared from below to be snow turned out to be hard ice requiring continuous step cutting. We turned back about 2:30. The urgent fact was that we had to be down in Camp II before dark if we wished to spend the night in sleeping bags. There was no room for us in Camp III. We barely made it.

According to plan, Matthews, Ortenburger and Irwin were to remain in Camp III for two days and return on the third, after which the remaining three of us would climb up and occupy the camp for the same length of time. However, a full day of monotonous inactivity in Camp II proved too much for the three of us in the support group. In the grey dawn of the second day we started up with the intention of climbing the main peak in one day should all be well at Camp III. Our early start put us at the wind-buffeted high camp just as the occupants were starting for the main peak themselves. We learned that on the previous day West Huandoy had been climbed, a 20,800-ft. first ascent.

The weather was not encouraging. Clouds obscured the peaks and the driving wind was whipping up snow around our legs. We slogged steadily up a long slope nearly to the saddle between

the main and west peaks, then turned to the right up the broad southwest face of the main peak. The usual deep snow made the route fatiguing but it was not otherwise difficult. Ortenburger led almost the entire distance, steadily punching steps in the soft snow. Later in the day the wind diminished somewhat and occasional bursts of sunshine began to cheer us considerably. We climbed over a rounded false summit, continued for several hundred feet across a shallow saddle, then climbed up a narrow ridge onto the little snow tower which gives Huandoy a distinctive summit.

By the time we were all on top, the intervals of clearing were becoming more frequent. During the brief openings we snapped pictures almost recklessly. The momentary panoramas revealed were even more spectacular than those from Chopicalqui. We were high enough to look down on Chacraraju, four miles northeast of us, but our advantage in altitude made its two summits look no less defiant.

Once more, those of us from Camp II felt the compelling necessity of starting down. Having now attained our principal objective, the highest of the Huandoys, we decided to quit while we were ahead and risk no further passages up and down the splintered rock wall of the cirque. Only this morning a falling rock some five inches in diameter had barely grazed Creswell's head, opening up a gash which had bled profusely. We considered this close enough for a rock of this size. We informed our friends we would forego our rights to occupy Camp III and would await them in Camp II. We departed, wishing them well on the South Peak the following day. Once more we barely managed to arrive at our camp about the time light was failing completely.

The South Peak still remains unclimbed. Bad weather finally brought the high party down and we evacuated the Huandoy camps. This was the last complete ascent in which the writer personally participated. The next and last objective of the expedition was Huascaran. We left the upper Yanganuco and moved all our equipment down the valley to Yungay in order to approach Huascaran from its easier western side through the town of Mancos. In the second camp, well up on the mountain, one of our group was seized quite suddenly during the night by a bronchial disturbance of unknown but severe nature. Since I was beginning to develop a cold myself, next morning I volunteered to go down with him. These afflictions presumably were the result of our brief contact with civilization after weeks in the heights.

The two of us finally descended all the way to Yungay where we both improved rather quickly. Eugenio accompanied us to Yungay, with Eliseo providing an additional safety factor till we were well below the ice. Both porters then returned to the high camp. Within a few days, remaining members of our group continued on to climb both summits of Huascaran. bringing the expedition total for the season to seven peaks.

CLOUDS OVER ECUADOR

By Percy Crosby

Cheerless words greeted our arrival in Quito on August 6. We had come over 3,000 miles to attempt the highest volcanoes in the world, including Chimborazo (20,700 feet), Bolivar's "Watchtower of the Universe", and Cotopaxi, only 800 feet lower. Now the stage was set for great disappointment, although the denouement was still weeks in the future.

The party comprised my sister Joan and myself. Joan brought to the endeavor a lively interest in climbing acquired from weekends on the Shawangunk cliffs of New York under the able tutelage of Hans Kraus. Even more indispensible to the success of our enterprise, however, was her fluent knowledge of Spanish of which I knew nothing. I had had three seasons of varied mountaineering experience in the western U.S. and Canada but the lure of very high peaks could no longer be resisted.

Opportunity became reality in the spring of 1954 despite lack of success in attracting a third member. We realized our lack of numbers would have to be balanced by greater prudence. We pored over the standard tourist guides and the best available maps. Our most valuable reference, however, was Whymper's classic, Travels Amongst the Great Andes of the Equator, an engrossing account of the almost incredible number of first ascents he made in Ecuador between December, 1879 and July, 1880. Unfortunately we found Whymper and the other guides to be misleading or unhelpful concerning the actual conditions prevailing at the season available to us. We had accepted in good faith the advice that the dry season from June to September was the best time to visit Ecuador. While perhaps true for the lower intermontane valleys, to the mountaineer such counsel is equivalent to stating that November to January is the climbing season in the Canadian Rockies.

The extent of our misinformation was revealed by a compact man with vigorous mannerisms and penetrating eyes who operated a small hardware shop in Quito. His name was Pedro Esparza. On the day of our arrival in Ecuador's two mile high capital we visited him, having been informed he was a keen climber and a leading member of the local alpine club, "New Horizons". When we had explained our purpose, Esparza's opening remark was: "Unfortunately, you have come at a bad time to mountain climb in Ecuador. The winds are extremely strong and the crevasses very wide."

There followed a rapid-fire conversation in Spanish, the gist of which, even to my untutored ears, was highly unfavorable. Joan finally turned to me, "He says that August is usually their coldest and windiest month and that the clouds hang very low most of the time. Apparently this year is even worse than usual. According to him several American and French expeditions have already failed on Chimborazo and Cotopaxi this year. The conditions are muy malo on both—he thinks we would be foolish to try."

"Does he think any mountains are in condition to climb?"

"Yes, maybe Pichincha (15,800 foot volcano rising above Quito) on a good day. The snow is very soft and deep on the big peaks."

Somewhat stunned by these discouraging prognostications and a little dizzy from the too rapid transition to Quito's rarefied air, we thanked Esparza and said we would keep in touch with him. The next week was devoted to sightseeing, enjoying the traditional hospitality of Ecuadoreans, and the slow process of acclimatization.

View Toward North Iliniza From West Flank Of South Iliniza.
Photo Percy Crosby

(Midway up prominent butress on right is highest point reached on North Iliniza (16,850 ft.) Ecuador.)

South Iliniza (17,400 Ft.) And Saddle (15,900 Ft.) Ecuador.
Photo Percy Crosby

Of great value to us at this point was a magnificently illustrated book on the Ecuadorean peaks and jungles somewhat similar to Schneider and Kinzl's work on the Peruvian Cordillera Blanca. This was Nieve y Selva en Ecuador by Arturo Eichler, Editorial Bruno Mortiz, 1952, Guayaquil, Ecuador, S.A. 132 pp. with 191 photos and map. A desirable acquisition for anyone interested in the region and able to comprehend the Spanish text, it describes expeditions on Chimborazo, Cotopaxi, Cayambe, and others. An interesting appendix lists all the ascents and near ascents of the major peaks from Whymper's time to 1952. The number is not great (the average, four to six successful ascents per peak), but there has been a notable increase in climbing activity, much of it by native Ecuadoreans, since World War II. This surprised us as we had surmised from the lack of information in North American climbing journals that we were venturing into a sort of climbing hinter land. We had even dared hope for a first ascent of a 5,000 meter peak, Carihuairazo, a close neighbor to Chimborazo, but this was dashed by word of a 1952 ascent.

A week after arrival our alpine equipment came and we determined to use it on a conditioning climb. We planned to visit the colorful Indian town of Otavalo 75 miles north of Quito whose western skyline is dominated by the rugged cone of 16,400 foot Cotocachi. After the weekly Indian festival we arranged transportation to Lake Cuicocha at the southern foot of the volcano, and were extremely impressed by the wild grandeur of the site. Lake Cuicocha makes some claim to being the Ecuadorean equivalent of Oregon's Crater Lake. Though much smaller, it is geologically comparable, having once been a volcano caldera now filled with deep lakewaters.

We had great difficulty in locating a suitable camp on Cotocachi due to the aridity of the high prairie. This fact necessitated our pitching camp much too low (11,500 feet) to make a serious bid for the summit even in the advent of good weather. Fortunately we were graced with ideal weather on the morning of our climb and reached 15,000 feet, several hundred feet below snowline, before being forced to turn back by lowering visibility. The backbone of Ecuador spread before us, its twin Cordillera crowned at intervals by a sharp upward stab of white against the blue, lingers still in memory.

Upon our return to Quito, we visited Esparza's shop and met there other members of New Horizons. The weather, in general, had remained grim as ever, despite the fortuitous break on Cotocachi. A Senor Erazo told us high winds had demolished a telegraph station at the foot of Chimborazo. We realized the impossibility of coping with such violence, and when Esparza suggested a weekend expedition to Iliniza 50 miles south of Quito we gladly agreed if he would consent to accompany us as guide and friend. Through friends at the hotel we made the acquaintance of Senor Roman who operated a large hacienda at the foot of Iliniza and on August 21 we rode with him to his home, where he made a room for sleeping and cooking available to us. On the following day we met Esparza and the party proceeded with the Indian arriero, Jose Maria, to the 14,000 ft. camp on Iliniza. Visibility, as usual, was nil and we could only visualize the icy grandeur of Iliniza suspended somewhere above us.

Iliniza has two peaks separated by a narrow saddle at 15,900 feet; the South Peak is the higher at 17,400 feet, the North summit being 500 feet lower. Among Ecuador's peaks Iliniza is unique because of the weird and spectacular ice formation which festoons the South Peak. Indeed Iliniza Sur has captured the imagination of all climbers who have viewed it. To Arturo Eichler it is the most "terrifyingly beautiful" of the Ecuadorean peaks, and to the mountaineer it represents route finding and technical problems in abundance, which perhaps accounts for the fact that Whymper's party succeeded only once in three attempts on it. Since Whymper's day three successful ascents have been made. A German party in 1939 spent 40 hours continuously on the

snow before breaching Iliniza's defenses. The North Peak is considerably less formidable since it bears less snow, and was to be our objective if the weather lifted.

However, ill omens were in the air. Just a week before a young padre had strayed from an outing of Catholic fathers on the lower slopes of the mountain and had not been seen again. Search parties had met with no success. The last of the search teams were still out when we arrived . . . they included padres from a nearby monastery, members of climbing clubs, and the Indian peons. Several searchers had themselves become lost for varying lengths of time.

Early next morning we set out for the saddle despite hopeless conditions. After several hours of plodding upward through the clouds, the gradient lessened. This, Esparza informed us, was the saddle. Here we were assailed by the full force of the diabolical southeast wind, which bore with it horizontal sheets of sleet. On the windward side of every boulder and projection remarkable rime cones, some 3 or 4 feet long, had formed. This was graphic testimony to the severity of conditions; I remembered having seen the same type of ice formations near the summit of Mount Washington in midwinter. We did not tarry long. Back at camp we met Jose Maria, who helped us pack down to the valley. At the Roman's hacienda we bade farewell to Esparza, who had to return to Quito.

Realizing by now the futility of any attempts on the Ecuadorean giants while they were in such a malevolent mood we decided to stake our remaining time on the Ilinizas, in the hope that somehow the weather would ameliorate. We were stormbound in the valley until the 26th when it cleared sufficiently to enable us to return to the high camp at 14,000 feet. On this occasion we were accompanied by Chalo, 22 year old son of Senor Roman who had done a little climbing on the lower peaks of Ecuador and who was greatly interested in our undertaking. Our second occupation of high camp was to span six days, a good opportunity to sample camping at high altitudes. The possibility of establishing a camp on the saddle itself, at nearly 16,000 feet, was rejected in view of the unpredictable and dangerous weather.

From the 26th to the 28th of August the weather remained blustering and cold. In the mornings the thermometer stood in the high twenties. Frequently rime covered the outside of the tent, and on the 28th, trees and shrubs were encased in ice. Finally, on the afternoon of the 28th, the clouds began to lift and we were rewarded by the sublime sight of Cotopaxi framed by ice sheathed branches. The effect, in subdued tones, was strongly reminiscent of a Japanese print, and it was difficult to persuade oneself that this was not Fujiyama. Twilight fell calm and clear and we keenly anticipated the following day.

Arising at 4:30 a.m., I felt quite ill with a throat infection and head cold. This was indeed a cruel blow, since the day was as perfect as we had hoped it would be. By mid-morning I felt a little better and inactivity seemed intolerable in the face of such ideal weather. Joan and I started out for the North Peak at 10 and arrived at the saddle by 12:30. There we met climbers of New Horizons who advised us that it was too late to attempt the North Peak. Following their suggestion we reconnoitered the west side of South Iliniza and were rewarded by unexcelled views of great mushroom shaped snow-cornices and stalactitic precipices of ice, the like of which, to my knowledge, are duplicated nowhere in North America. To our right, billowing clouds boiled over the jungle depths. The unbroken sweep of North Iliniza formed an impressive backdrop as we trudged slowly upward under the looming presence of ice blocks delicately poised. A great listlessness, induced by the effects of altitude, the hot blue glare of sun and snow, and my indisposition began to make myself increasingly felt. Just below the zone of the first crevasses, at about 16,500 feet, we turned back. The decision was wisely taken—I was sicker than I realized, and staggered downward in what my sister testified to be a rather alarming fashion.

Back at camp, the consequences of the day's efforts were unpleasantly felt. After an uncomfortable night, it was obvious that nothing should be attempted on the coming day despite continued fine weather. A day of recuperation, it was hoped, would permit another attempt on North Iliniza on the following day. The morning of the 31st was an enigma insofar as weather was concerned—a cloud banner streamed from the summit of South Iliniza and the wind had increased to its customary velocity. Despite these unfavorable harbingers, we decided to start once more for North Iliniza. In any case, this was to be our last opportunity since we had already arranged with Jose Maria to pack us down in the afternoon. After a false start we made the saddle at 11. With grotesque timing, the weather closed in just as we set foot on the south ridge of North Iliniza. The mists eddied around us as we kicked steps up the lee side of the ridge, parting frequently enough to give us a fleeting glimpse of the route ahead just when it was most needed. Unfortunately, these intervals of visibility became rarer and rarer and finally our "assault" on North Iliniza ground to a discouraged halt somewhere below the one distinctive landmark on the ridge—a large triangular buttress plastered with snow and rime which we knew guarded the summit ridge. We huddled twenty minutes on a small ledge partially shielded from the probing wind, hoping the thin layer of clouds, through which we could see the sun, would dissipate. They finally did so for five minutes which enabled us to reach the base of the buttress.

Now the clouds were again around us, this time for good. Belayed by Joan, I began a traverse of the tower but found the violence of the wind and the treacherous looseness of the rime very trying. Rounding a corner, I came face to face with near vertical loose rock slabs plastered with snow and rime. It was quite apparent the traverse would have to be made fifty feet lower. Here, half way up the tower, we estimated the summit was barely 50 feet higher than our present position. To proceed in the face of the 50 to 60 m.p.h. gale, however, was clearly inadvisable if not impossible in view of the difficulties of the final several hundred yards along the summit ridge about which we had been warned. Tiny ice particles were swept from the slope and whipped with stinging force against the exposed portions of our faces. Snow goggles began to fog hopelessly. At 16,850 feet we started down.

With this our mountaineering adventures ended for the summer. Another week would see us home. We had accomplished nothing bold or even particularly noteworthy. But, as we came to realize, the true appeal of mountaineering owes least to raw success—the momentary exhilaration of standing at last on one's peak—and perhaps most to the pyramid of effort that makes the final step possible. Judged by this criterion, our expedition had been eventful indeed. For those who are bored with the promise of a "sure thing", the high Andes can be unhesitatingly recommended as a range of infinite surprises.

IN MEMORIAM

WILLIAM WASBOROUGH FOSTER

By the death of Major-General William Wasborough Foster, C.M.G., D.S.O., of the Canadian Army (with fifteen decorations and many citations in war dispatches during the four years he was at the front in Europe during the First World War and in command of the defenses of the western half of Canada during the Second World War) Canada and Great Britain have lost one of their most esteemed officers and accomplished citizens. But fortunately his military services and activities in civil, social and business life have been recorded in the official history of both wars. Although his passing brings to an end his leadership, the influence of his high standards and accomplishments will endure for many to emulate.

Born in Bristol, England, in 1875 and educated at Wycliff College he came to British Columbia in 1894 and was employed by the Canadian Pacific Railway at Revelstoke until 1910 when he became Deputy Minister of Public Works for B. C. It was under his energetic administration that British Columbia gained a Dominion-wide reputation for the efficiency of its highway system.

I first met Colonel Foster in the Canadian Alpine Club Camp in 1911 and we began climbing together, a close association that endured for over forty years that brought us together in subsequent Club camps, on inspection trips over the Alcan Highway, both by plane and by car when, as a Major-General, the Canadian section of the highway came under his command, and in later years on extended inspection tours of hydro and diesel power plants in Western British Columbia when he was a member of the B. C. Power Commission.

Our first important climb together was with the famous Austrian guide, Conrad Kain, when, in 1913, we made the first ascent and traverse of Mt. Robson, called the "King of the Canadian Rockies," which the celebrated English mountaineer, Mr. A. L. Mumm, with his guide, Inderbinnen, twice tried to climb. They turned back because of the dangers of avalanches about which Inderbinnen declared—"I never before saw death so near," while Conrad declared our climb was the most difficult and dangerous expedition he had made in Canada.

Our other major climb together was that of Mt. Logan in the southwest corner of Yukon Territory of 19,850 altitude and stated to be the largest single mountain massif known, with an 18,000 foot plateau about twelve miles long and from five to seven miles wide out of which rise a number of final peaks, the highest one being at the eastern end of the plateau. Colonel Foster was the logical man to lead that Canadian-American Expedition but, because of official duties, he felt forced to decline the assignment and it descended upon me. However, after a ten weeks reconnaissance in 1924 was made to a 10,000-foot level from which further ascent in good weather seemed possible to the 18,000 foot level, provisions and equipment were freighted in by dog teams early in 1925 and fortunately Colonel Foster was able to join the climbing party of eight. Six made the successful final ascent from the base camp in 23 days to the final summit on June 23rd, 1925, for a fifteen minute view and deposit of a record in a brass tube and then descent and arrival at the base camp five days later. Two members turned back from the 16,700 camp on account of frost bitten toes and reached railhead without difficulty.

During all those backbreaking and exhausting days, I made no vital decisions without first consulting with Foster and to him should be given a large part of the credit for reaching our goal

and especially for returning all members of our party to civilization without serious casualty; for when the rest of us at the end of a day dropped for rest, Foster, the self-appointed "doctor" of the party, always got out the first aid kit and efficiently administered treatment to frost bitten fingers and toes and gave other medication when needed, all of which was extra work beyond the call of his duty.

Billy Foster will best be remembered by his casual acquaintances for his good humor and ready wit that always had an appropriate recital of experiences or an amusing story to lighten the cares of the day and were so appropriate around the camp fire; while at the meetings of his various clubs and organizations he attended, he could always be depended upon to make valuable contributions to the discussion of any subject under consideration.

The following are the memberships he prized most highly: the Royal Geographical Society, a Director of the Canadian Geographical Society, a life member of the Canadian and American Alpine Clubs, also a member of the Alpine Club, England, and Honorary President of the Alpine Club of Canada at the time of his death.

When there are more men like him to protect and guide its nations, the whole world will be a safer and better place for all mankind.

Albert H. MacCarthy, A.C.

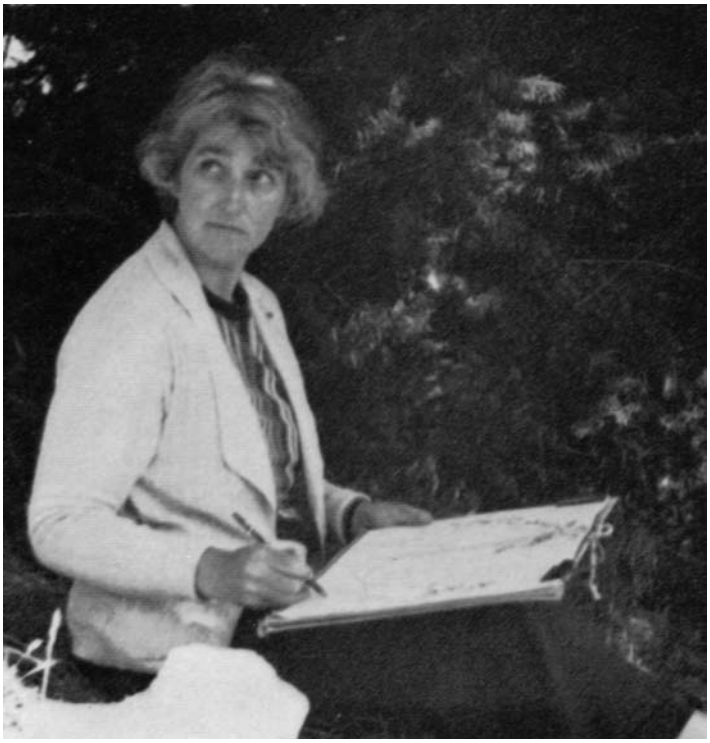
DOROTHY GLADYS BELL

"Though we travel the world over to find the beautiful,
we must carry it with us or we find it not. —EMERSON.

The recent first ascents of Everest, K2, Nanga Parbat and other Himalayan giants have focussed attention on the tremendous difficulties that have to be overcome in this type of climbing and the rugged and almost super-human qualities necessary for the climbers who aspire to tread these austere heights. In thus placing the emphasis on the necessity of attaining a definite goal at all costs, we overlooked the fact that to a large body of climbers and mountain lovers such an approach is subordinate to the desire to experience the peace and beauty that is revealed in the upper levels beyond the distractions of everyday life.

Such a one was Dorothy Bell, whose passing on July i8th, 1954, removed from the Alpine Club of Canada and particularly from the Vancouver section, one of its best loved members.

Dorothy Bell was born in Scotland and came to Winnipeg in 1912, from where, in 1914, she attended the Little Yoho camp, graduating on Mount President on July 23rd. Living in Winnipeg she met Dr. F. C. Bell (later to become President of the A.C.C.) and in 1916 she joined him in England where he was serving in the Medical Corps. They were married in London in June. Returning to Winnipeg in 1920 they visited the first Assiniboine Camp that year. They were at the O'Hara Camp in 1921 and Larch Valley in 1923, and older members often recall meeting the young Scots girl whose charming manner and smile won for her numerous friends throughout the Club. In 1923 they moved to Vancouver. In the following years other annual camps were visited, but it was in connection with the affairs of the Vancouver section that Dorothy Bell came in closest contact with the Club and its members. She was the first lady to fill the office of Chairman of the Vancouver section in the years 1938 and 1939. Always willing to serve the interests of the section she generously opened her lovely home for regular section meetings as well as special occasions on which such accommodation might be required on short notice. Her participation covered all



Dorothy Gladys Bell

activities of the section from laboriously packing up material for the new club cabin to designing and carrying out the distinctive menus for the annual banquets, which latter service she continued to render until within a year of her passing.

Dorothy Bell was also an artist of distinction and throughout her life in Vancouver she identified herself with art circles of what city, being a member of the B. C. Artists' Society and a frequent exhibitor with them. While she always adhered to her own individual style, her work developed along modern lines and was never static. During the winter of 1953-54 she painted a series of water colors portraying snow scenes viewed from her home on Eagle Ridge overlooking the waters of Howe Sound and its surrounding peaks and a memorial exhibition of these pictures as well as other work was held in the Vancouver Art Gallery shortly after her passing.

She is survived by her husband, Dr. F. C. Bell and two sons, Gordon and John.

So passes one of whom it was a privilege to be a friend and who realized to the full the beauty of the mountains from which she drew inspiration and strength all her life, culminating in what were almost her last words as she gazed at the vista of sea and mountain from her home.

"How beautiful it is."

—F. H. S.

MARGARET ISOBEL HIND

The Club lost one of its most active and enthusiastic members on January 2nd, 1955, when Mrs. Peggy Hind died in an avalanche near Mt. Temple Chalet, north of Lake Louise.

Peggy attended the University of Alberta, graduating with the degree of B.Sc. in Arts, and honoring in mathematics. She then worked for two years in Peterborough and Ottawa for the Dominion Government. It was at that time that girls were being urged to take Occupational Therapy and, as Peggy had always had a great liking for crafts, she decided to take a accelerated course at the University of Toronto. After graduation she returned to Calgary and worked as an Occupational Therapist in the Veterans' Convalescent Hospital until she married Robin Cyril Hind in April 1948.

A great many people benefited by her O.T. course. If anyone showed the slightest interest in learning to weave, to make gloves, tooled leather purses, etc., Peggy was only too willing to teach them. Her ardent zeal was most contagious and learning the crafts with her help was very enjoyable.

The summer before she finished her O.T. course, Peggy came home to Calgary and spent her short holiday with the Sky Line Hikers on their annual tramp in the High Hills. This was enough to convince her that Calgary was the place she should live so she could be close to the mountains.

She joined the Alpine Club in 1946 and attended both the Yoho Ski Camp and the Bugaboo Summer camp that year. She also attended the 1947 Glacier Camp and the 1949 Freshfield Camp, and spent weekends at the Peyto Lake and Ice River Camps. At the Ice River Camp, she and Bob starred in Len Chatwin's television movie taken on Martin's Peak. Ski camps were her favorites—the Yoho (1946 and 1951), the Tonquin (1949), Robson (1953) and Skoki (1954) valleys all rang with her happy voice and many tracks were made where none had been before.

Peggy was on the Council of the Calgary Ski Club for several years and in 1948 was the Calgary Ski Club Downhill Champion. In 1949 she was the club Downhill, Slalom and Alpine Combined Champion. She was also an active Hosteler before joining A.C.C. and had many trips on foot and bicycle in the foothills and mountains. On summer afternoons and evenings she could be found on the Calgary Tennis Club courts, and she was active in badminton circles in the winter.

Mrs. R.C. Hind

She was a good example of the saying "the more you do, the more you find you can do". Her housework was well organized so that she could do these other things. She was an energetic member of the Canadian Handicraft Guild and for 1½ years was Captain of the 7th Calgary Guide Company. She spent a lot of extra time preparing her Guides for their tests and taking them camping and hiking.

Peggy was most hospitable and many members enjoyed evenings at their home—at executive meetings, section parties, or just visiting.

Besides Bob, Peggy is survived by their two sons, John and Peter, and her parents, Mr. and Mrs. W. B. Trotter, all of Calgary.

Peggy loved the mountains in any season and she was always happy when skiing in powder snow.

> Or shall death find me riding the mad waves,
> Breasting the good salt foam, tasting its tang,
> Clear-eyed, anticipant, with laughter gay,
> Radiant as dawn whose beckoning finger weaves
> A golden path to me, as with a song,
> I leave Life's night to greet the unconquered day.

—B.C.M.R.

A. RODNEY ADAMSON, M.P.
MRS. CYNTHIA ADAMSON

Were one to look for an epitaph in the pages of Holy Writ, there could hardly be a more suitable one than that well known verse in David's poignant lament over his friends Saul and Jonathan— "They were lovely and pleasant in their lives and in their death they were not divided." Rodney and Cynthia Adamson died together in the tragic accident to a Trans Canada Airlines plane over Moose Jaw, Saskatchewan, on April 8th 1954. At the time of the accident they were en route to Calgary where Rodney was scheduled to speak at a political rally and they had planned to go on afterwards to Sunshine Lodge for some spring skiing. It was at Sunshine Lodge that Rodney had first met Cynthia Oakley, as she was then. Although she did not become a member of the Club she had attended ski camps on two occasions, and she was an accomplished skier.

By the death of Rodney Adamson the Club loses one of its most enthusiastic ski-mountaineers and the House of Commons loses one of the most energetic and outspoken members of Her Majesty's most loyal Opposition.

He was born in Toronto in Nov. 1901 and received his education at Ridley College, St. Catharines, Ontario, and at Magdalen College, Cambridge. During World War I he went through R.C.N. College, Halifax, and eventually became a pilot in the Royal Flying Corps, and saw service overseas. In World War II he went overseas as a Captain in the Lorne Scots Regiment.

A much travelled man, he had climbed in the Alps both in Austria, Italy and Switzerland, as well as in Central Africa and in the Argentine Andes. His experience in the Canadian Rockies was mainly in connection with skiing tours and he had been a frequent attender at the Club's annual Ski Camps. He took out active membership in the year 1945.

The writer's most vivid recollection of Rodney was during the 1946 Ski Camp in the Little Yoho, when a party of twelve made the first winter ascent of Mont Des Poilus, 10,731 feet, on a very beautiful day of bright spring sunshine. Some of the party took their skis right to the summit of the peak, and on the descent of the long steep snowfield below the summit Rodney elected

Mr. A. Rodney Adamson, M.P.

to schuss it. He certainly made the fastest time for the run down and he promptly acquired the nickname "The Toronto Express". He was a true lover of the Great Hills and the wide open spaces and his cheerful presence will be missed greatly by the skiing fraternity.

This is not the place to record his many outstanding services to his Country as a Member of Parliament and in many other spheres too, but it can truthfully be said that Canada has lost a notable personality and those of us who knew him personally a loyal and a faithful friend.

—E. R. G.

DR. MARY CRAWFORD, M.D., C.M.

After an active and useful life Dr. Mary Crawford passed away at the Lady Elizabeth Bruce Memorial Hospital, Invermere on June 6, 1954. She was born at Litherland, Lancashire, England, receiving her early education there, and her medical education in Coligny College, Ottawa, and Trinity Medical College, Toronto, graduating in 1900, when women doctors were rare in Western Canada.

In 1903 Dr. Crawford established a private practice in Winnipeg. In 1909 the Winnipeg Public School Board appointed her part-time medical inspector for girls in the schools, later becoming full-time inspector, a position she held until her retirement in 1941.

Dr. Crawford was a "Serving Sister" and life member of St. John Ambulance Association. She took a keen interest in the organization, and in 1912 held first aid classes for the members of the Alpine Club of Canada in Winnipeg.

She had been president of the Political Equality League in Winnipeg, and was instrumental in the Province of Manitoba being the first province to achieve political rights for women.

Dr. Crawford had a great love of art, drama, and literature, and was herself an accomplished musician.

She joined the Alpine Club in Winnipeg in 1908 and her first camp was at Lake O'Hara in 1909. She loved to be among the mountains, where her gracious charm and her keen sense of humor, endeared her to many.

Her generosity to all worthy causes was well known, but not so well known were her many quiet and unheralded helpful deeds of devotion. More than once have I heard a one-sided telephone conversation, "Get so and so, and such and such, and send the bill to me".

It is good to know she enjoyed some happy years in her beloved Windermere Valley where she was a valued community worker, a member of the Board of Directors for the local hospital and_ a faithful worker on the vestry committee and the W. A. to Christ Church, Invermere. She had also done emergency work at the hospital when regular members of the staff were absent.

It is sad to know of the suffering she bravely endured towards the end of her useful life. She will be long and affectionately remembered by the older members of the Alpine Club of Canada.

—A.B.

In Memoriam will appear in the next *Journal* for the following members.

Mrs. J. A. Wilson
Dr. D. T. Fraser
Mr. R. A. Squire
Mr. Harry Moss.

BOOK REVIEWS

OUR EVEREST ADVENTURE

(the pictorial history from Kathmandu to the Summit), by John Hunt; pp. 128 including preamble and 150 pictures and route maps; no index. Hodder & Stoughton Ltd. Price $2.75.

The Ascent of Everest[1] by the same author in 1953 told in detail the story of the successful expedition of that year, led by him; it also contained a great deal of information on the organization of the expedition and its equipment. The present volume Our Everest Adventure, to use Sir John's own words, "is primarily a pictorial record, designed to bring to life the story I attempted to describe in *The Ascent of Everest.* The words are the same as I wrote in that book; it is, in fact, a shorter version brought to life by photographs." It is very much shorter in text, corresponding to only about 35 pages of the original book; appendices are all omitted. Much of the organizational work—all of it, until Nepal was actually reached—is also omitted in writing, though the many pictures are so arranged that the reader is given a very good understanding of the type of equipment used and the huge organization required to win the summit, besides much more information about the technical difficulties and much more idea of the country traversed. The routes are easy to follow in this new edition, a most excellent photograph of a model of the West Cwm and the mountain being the key "route map".

The format is 9½ x 7¼ inches instead of the usual 8¼ x 5½ and full use has been made of this increased size both in full page illustrations and in panoramas running across two pages; reproduction is by photogravure, more pleasing to the eye than the halftones of the earlier book, but there are no pictures in colour. A general map of sketch nature is printed on both sides of the cover and photos indicating routes appear at suitable points. The type used is unusually large (14-point) making reading easy and causing the eye to reach more for the photograph than the written word, which is the intention.

The book opens with a beautiful two-page picture of Everest and the West Cwm and extending north to Changtse through the North Col and south through Lhotse to Nuptse, followed by a map of the approach to the Cwm. Many previously unpublished photos appear including those taken by Hillary on the route to and from the summit, and from the summit itself north, south, east and west.

The Ascent of Everest besides being a fine story is also a book of reference; this volume is a very fine record of a magnificent achievement.

—E. O. W.

NANGA PARBAT

by Dr. Karl Herrligkoffer. Ryerson Press; 220 pages, plus 34 of appendices and bibliography; nine colour plates; 35 pages of black and white; numerous maps and sketches.

While the British expedition was making history on Mt. Everest in 1953, 1000 miles away an Austrian-German expedition was performing a far more dramatic feat—climbing Nanga Parbat, 26,620 feet.

Thirty-one men died on Nanga Parbat before this expedition set out. It dominated German climbing history like a vast Wagnerian tragedy, and the 1953 team set out with gloom and foreboding in place of the light-hearted sportsmanship of the usual expedition.

1 Reviewed C.A.J. 1954.

In 1934 and 1947 the finest German mountaineers of their day were wiped out on the mountain. One of them was Willy Merkl.

Herrligkoffer is his step-brother, and organized the expedition in his memory. He decided to take the same route that Merkl used —despite the fact that the 1939 reconnaissance (by a team including Harrer of "Seven Years in Tibet" fame) had uncovered a better one.

So organized climbers were mostly against him from the start. Controversy raged—and, indeed, after the ascent, reached the scope of a national scandal.

Small wonder the account is full of gloom, short of gaiety, and has many glossed-over pages barely concealing the dissension which split the party.

But none of this can detract from the almost incredible feat of Herman Buhl, the slight Tyrolean who reached the summit alone. His was undoubtedly the greatest feat in Himalayan mountaineering history.

He climbed over 4000 feet to the peak without oxygen, tent or food, and spent the night without even an extra sweater, standing on a rock near the summit. He staggered down next day full of drugs, frost-bitten, and looking 20 years older, his companions said.

If climbing is a sport, this was lunacy. But as a tense do-or-die bid to let the souls of his predecessors sleep in peace, it was magnificent, a feat which will probably never be equalled.

There were ugly overtones to this staggering display of virtuosity, which ended with Buhl descending the whole way from the summit without his axe.

Herrligkoffer, down below, was radioing orders for rescue operations. The men at high camp did nothing. The author makes no comment on this. In his chapter on the aftermath he writes: "I have never answered in public the attempts which have, with the assistance of the Press, been made to discredit me . . ."

The book is in two parts. The first, by Eleanor Brockett and Anton Ehrenzweig, who also did the translation, lists the previous attempts on the mountain from the time Mummery died there in 1895. Herrligkoffer's contribution is only 125 pages, but with its fine photographs the whole adds up to a fascinating book.

—P. L. S.

SOUTH COL

by Wilfred Noyce (British Book Service; $4.25); 300 pages, four color plates, 48 black and white plates, and five maps.

Sir John Hunt's official account of the ascent of Everest was a masterpiece in its way. This account, too, is a very fine effort, though completely different from Hunt's.

The difference is simple. Hunt is a master of logistics. Noyce is a poet. And the two are admirably complementary.

Instead of ending the flood of books on Everest, the ascent has touched off an even bigger surge of them. One needs a minor fortune to buy them all, but this one is certainly worth while.

It seems Noyce spent almost as much time jotting down the personal sidelights which make up so much of an expedition, as he did in actual climbing—though his record on the trip shows he did his share.

So he provides almost a play-by-play account of the smaller things which loom so large near your peak. His reactions when Hillary refused his laboriously-made tea on the return to the Col. The comments Hillary made when he first told his colleagues he had reached the summit. The boredom, the monotony, the thoughts that stumble through a man's mind when he is in the shadow of exhaustion.

At 21,000 feet he wrote:

Heart aches,
Lungs pant
The dry air
Sorry, scant.
Legs' lift
And why at all.
Loose drift, Heavy fall.
Prod the snow
It's easiest way;
A flat step
Is holiday.

And how did Hillary feel when he learned he was Sir Edmund? Says Noyce: "Ed spluttered, thought it was a joke, but it was true. 'You go and have a good time on the mountain and then this happens to you. How on earth am I going into the grocer back home now in my old trousers to ask him for pots for my honey?' " The main details are well-known to all by now. But the minor ones open up a fascinating view of the expedition which will, despite the epic scale of the expedition, give the climber a sense of having been through it all on his own trips—and even of having been along on this one.

—P. L. S.

THE WHITE DESERT

by John Giaever (Clarke, Irwin and Co., $5.25), 298 pages, 42 pages of photographs, maps and sketches.

This is by no means a mountaineering book, but it is one which many climbers and explorers will find fascinating. It deals with an expedition by Great Britain, Norway and Sweden to the Antarctic, beginning in 1950.

It is absorbing of itself; but ACC members will find a particular interest in the part played by Club member Fred Roots. Roots was chief geologist, and played an outstanding role in the long and rugged undertaking.

He led, for one thing, a three-man team which took a dog-sled trip lasting 5½ months—smashing all existing records by even the most famous of the Antarctic pioneers. He has written a section of the book describing his experiences, which included camping in tents during the Antarctic winter.

THE AGE OF MOUNTAINEERING

by James Ramsey Ullman (Longmans Green, $7.00), 320 pages, plus 32 pages of photographs, 10 of maps and sketches.

SUMMITS OF ADVENTURE

by John Scott Douglas (Dodd, Mead and Co., $3.50), 263 pages, plus 18 pages of photographs.

Both of these are histories of climbing right up to date. Each, for its good points, is a worthwhile addition to any climbing library. But if you buy both, read the Douglas book first.

If you do, you'll find it entertaining. If you read Ullman's first, the other book slips very noticeably in stature.

Douglas then begins to look like an amateur alongside the polish, research and style of the veteran Ullman.

Douglas, for instance, trots out once again the hoary and long-discredited tale of the excited surveyor racing in to tell his superior he has discovered the highest peak in the world.

When he comes to Nanga Parbat, and the successful climb of 1953, he gives just one paragraph to the epic feat of Herman Buhl in reaching the summit alone—a feat which, whatever you say about its ethics or sanity, probably will never be equalled in Himalayan climbing. And even the one paragraph brushes it off as a sort of romp Buhl did between "early morning" and 10 a.m.

On our own continent, Douglas gives an account of the Logan ascent, then concludes dramatically that it was so tough nobody has even planned an expedition there since. Ullman soberly records that it and St. Elias have been topped for the second time since the war. He deals well with Nanga Parbat, and discusses many recent ventures ignored by Douglas.

Ullman's book is a more scholarly effort, which deserves to rank as the definitive history of climbing since 1941, the most active period in the history of the sport.

It is an extension of, and includes much material from, his *High Conquest.*

Chapter 7 will be of special interest to ACC members, as it deals at some length with the history and prospects of climbing in Canada.

Here he pays tribute to the Club, after noting that few new guides appeared to take the place of the old ones in the Rockies. He goes on: "Fortunately, however, the gap has been at least partially filled by the activities of the Alpine Club of Canada. One of the leading mountaineering organizations on the continent, it focuses its attention particularly upon the Rockies, and each summer sponsors large-scale climbing parties under expert leadership."

Both books have lists of famous peaks, reading lists, and other appendices. But here again Ullman scores heavily with more details and scope, including a list of fine ascents yet to be made.

It is also a more handsome and impressive volume, well worth the extra investment.

—P. L. S.

THE SKI AND THE MOUNTAIN

by Thomas Paynter (McGraw-Hill Co. of Canada); pp. 212; n pages of illustrations. Price $3.50.

It could hardly be expected that a book of only just over 200 pages could deal very exhaustively with two such vast subjects as skiing and mountaineering, but the author has made a brave attempt to cover the ground as concisely as possible. The book is a judicious mixture of text book and autobiography, and as such is eminently readable while not being at all profound.

At the end of chapter 2 which deals with "The origin and development of ski-ing" there is a short bibliography—always a useful feature for those who desire to make a further study. It is a pity that the author did not extend this practice to the other chapters on such subjects as ski technique, rock climbing, etc. Possibly his zeal for research in other works had evaporated by the time chapter 3 was penned. This chapter which deals with ski turns suffers from a lack of illustrations, which are needed to give beginners a good grasp of the various evolutions described.

The chapters on the playgrounds of Europe and on ski racing contain much valuable information and the author's description of running some of the big downhill runs at Murren is particularly vivid. On page 136 there is a very good analysis of the reasons that induce men to climb mountains. These cannot be stated too often, and every climber should be able to give convincing reasons for "the faith that is in him".

Chapter 12, "Canadian Rockies, 1944" will be of particular interest to members of the Club, as a number of them took part in the military training operations which are described. Like most climbers whose previous experience has been limited to the Alps where all the high valleys are inhabited and huts and shelters are to be found in profusion, the author found the contrast between these luxuries and the wild Canadian bush a little hard to take.

It was fortunate indeed that he was only struggling with Alberta bush and not the far-famed B.C. variety, with its added attractions of devil's club and slide alder, or the story would have been still more harrowing. Some minor inaccuracies have crept in as was almost inevitable after a lapse of some ten years since the events described took place. On page 186 reference is made to Frank Smythe's expedition to the "Lloyd George Mountains at the northern end of the park". This gives the impression that this trip was in connection with the Lovat Scout training in 1944. It was an entirely separate climbing expedition, which Frank organized in 1947, and the L. G. range is nowhere near Jasper Park but several hundred miles away in northern British Columbia. The author also describes Mt. Robson as Canada's highest peak.

If this little volume serves to bring the great pleasures and possibilities of ski-mountaineering into greater prominence and if it induces more skiers to forsake the packed slope and the well-worn "piste" for the untracked snowfields, it will have achieved its main purpose. I wish it well. Ski-heil.

—E. R. G.

PETERLI AND THE MOUNTAIN

by Georgia Engelhard, published by J. P. Lippincott Co., Philadelphia and New York, 1954. 40 pages of story and drawings, illustrations by Madeleine Gekiere. Price $2.25.

Miss Engelhard, a New Yorker, is a member of the Alpine Club of Canada and has made many climbs in both North America and Switzerland. She is a photographer of note, having worked for *The National Geographic Magazine, Holiday* and others. The newspaper story of the cat that climbed the Matterhorn appealed to her and so her first book for children came to be written.

Peterli and the Mountain, although primarily for children aged six to ten, is a book that adults will enjoy themselves when reading to children. Peterli, the cat, becomes very bored with life in Zermatt. There are no mice to hunt, the summer has been hot and dry, the fields are parched and brown, the mice have all left in the direction of the Hornli Hut on the Matterhorn. Peterli has an idea, he will wait until his friend Emil, the guide, starts for the hut, then he will follow him and find the mice and life will be interesting once more. Life was certainly interesting for Peterli, if not in the way he imagined. His adventures on the Matterhorn, his descent (in Emil's rucksack), by the south side, his escape from the avalanche, all make entertaining reading.

Madeleine Gekiere who has illustrated the book is Swiss, and she has made charming sketches of Emil with his nailed boots and ice axe, Zermatt with its balconied houses and towering Matterhorn and of course Peterli, "climbing like a cat."

—A. F.

ALPINE NOTES

FIRST ASCENT OF MT. PACKENHAM

By Stan Pearson

The opening of the Kananaskis highway from Seebe to Coleman, Alberta, has made more accessible some of the eastern ranges of the Rockies. It is the habit of the Calgary section to attempt in the spring and summer to scale some of the yet unclimbed peaks in the vicinity of the Kananaskis River and its tributaries and such was our intent July 4, 1954.

After an early breakfast we were on our way shortly after 6 a.m. with Mt. Packenham as our objective. Mt. Packenhatn, according to Sectional Sheet No. 114, is located about two miles east of the Kananaskis road and culminates in western Sec. 6 Twp. 21 Rge. 8 W. 5. It is flanked on the north by Mt. Evans-Thomas, climbed the same day by Jim Tarrant's party, on the south by Mt. Hood, a formidable looking series of steep westerly dipping slabs, on which an unsuccessful attempt was made by a party very capably led by John Dodds. To the west of our mountain and partly hiding our route up, occurs a minor extension of the Opal Mountains, locally referred to as Grizzly Peak.

There were six of us in the climbing party: Peter Rainier, Lyle Pretty and myself on the first rope and Malcolm Dixon, Jack Pike and Norman Gish on the second. To keep in the sun and on the dryer open slopes we started by traversing fairly high up on the grassy south shoulder of the Opal Range. We soon came to good up-ended limestone strata and here roped up to enjoy a little rock climbing. Shortly we were out of this and ascending the grassy south slopes of a broad gentle col separating the Opal Range from Mt. Packenham. From the col we climbed easily for a short distance up the main north-west ridge and then traversed a short distance right onto the northern portion of the west face. We did this mainly to increase the amount of rock climbing that appeared to exist on the great slabs that dip about 60 degrees to the west. It is a point of interest that this whole range, particularly from Mt. Evans-Thomas to Mt. Jerram, is composed mainly of steep (50°-80°) west—dipping Mississippian strata and therefore should afford fair rock climbing. On the west face we spotted two groups of about six mountain goats. The nearest group also had spotted us and rapidly ascended a minor ridge on the face. We followed and noted that we and the goats were forced to traverse left back onto the north-west ridge in order to pass a steep, smooth slab. Back on the ridge at about 2 p.m. we ate our lunch and enjoyed speculation as to the difficulties being met by Dodds' party on the more formidable slabs of Mt. Hood. From our vantage point on Packenham it did not appear that a good and safe route could be found on the north or west faces of Mt. Hood.

After lunch we were forced to remain on the north-west ridge treacherously covered in places by snow ridges and cornices. Fortunately all twelve goats were still ahead of us and were using the same route for the same objective. We followed them safely and without any difficulty. About 400 feet from the top Lyle Pretty came down with stomach cramps and was forced to stop and let us go on without him. Jack Pike generously agreed to stav with Lyle.

In a few minutes, after 4 p.m., the remaining four of us were on the peak, the last 150 feet affording an easy rock climb. The peak was mainly snow-covered and we had some difficulty finding bare rock on which to build our cairn. Tracks in the snow plainly showed that the goats had actually made the first ascent and were already on their way down the east side. From the peak we

had a good view of Tarrant's party on the peak of Mt. Evans-Thomas. We also had the impression that Packenham, although not indicated so on the maps, is probably about 9,500 feet above sea level, since it appears higher than Hood.

We started down at 5 p.m., picked up Pike and Pretty who was by now recovered, and made fast time down a snow-filled gully to the stream between Packenham and Hood and thence to the road and our camp. We left with a feeling of satisfaction and a determination to attempt, at a later date, some of the other unclimbed peaks in this region such as Brock, Hood and Blane.

FIRST ASCENT OF MT. EVANS-THOMAS

By Jim Tarrant

On July 4, 1954, six members of the Calgary Section, Jeanette Farman, Isobel Spreat, Bill Lemmon, Graham Ross, Milt Hicks and Jim Tarrant, made a successful attempt on previously unclimbed Mt. Evans-Thomas. This peak rises to a height of 9,500 feet at the head of Grizzly Creek, slightly south-west of Mount Fisher in the Kananaskis area.

The party made their way up Grizzly Creek and through some high meadows at the head of the creek and then scrambled up easy slopes to the col between the south peak of Mt. Evans-Thomas and Mt. Packenham. From here the crest of the very sharp south ridge was followed for a considerable distance. The ridge is exceedingly narrow, sloping steeply to the west and dropping almost vertically on the eastern side and in some places overhanging considerably. A high wind added some excitement to this passage. One or two small towers were bypassed on the western side, but finally a large tower forced a descent on the western face for about 120 feet. From here the party scrambled up a short wide gully to the base of the final peak. This gully ended in a wall of doubtful stability, but this was surmounted without too much difficulty, although it offered only small holds. This was the last pitch of any account, the windy south summit being only a few rope lengths along the ridge from the top of the wall.

An exceedingly long and sharp ridge leads from the south summit to the north peak (only slightly lower than the south peak). This north peak is still unclimbed.

The party spent long enough on the summit to erect a good-sized cairn, then descended by the ridge of ascent as far as the base of the wall of the final peak. From here the party scrambled down over easy slabs, gullies and scree slopes to reach the high meadows, and then retraced their way down Grizzly Creek to the road.

FIRST SKI ASCENT OF MT. GIMLI

By Leon Blumer

Mt. Gimli (9,215 feet) lies west of Slocan Lake, B. C., in the small Valhalla Range, which has steep, vest-pocket glaciers and sharp granite peaks. A ski attempt in February was foiled by snow, and Loren Calder and I tried once more on the first weekend of May.

Friday night we camped at 2,000 feet. Next morning, carrying camp equipment, ropes, axes and skis, we pushed along Jack Atkinson's old blazed trail, then via talus and snow at 4,000 feet, to a large rock fault and cave at 5,000 feet.

At 5 a.m. Sunday we started on a route which led up several thousand feet, then dropped 500. After crossing several crests, we angled to the foot of a steep rock wall with a cornice. The

north end of the wall led to the summit. Only safe alternative to an extremely dangerous-looking slope around the corner was a crack and chimney about 100 feet high. I spent an uncomfortable half-hour roped in here, and was extremely glad of two large holds at the top.

Hip-deep in snow, we crept about 30 feet up a steep slope, then branched right to the nose of the ridge, which gave about 25 feet of vertical rock climbing. The rest was just a walk to the summit, reached at 3 p.m. We watched avalanches pouring from Mt. Gladsheim, and noted three peaks farther west which can be reached on skis and are probably unclimbed.

The nose and chimney gave us a few nasty moments on the way down, and we started several small avalanches in the wet snow. But we were back at the cave by 5:30 p.m., and crashed our way out to the truck by darkening twilight at 7:30 p.m.

NORTH END OF GROTTO

By R. C. Hind

Calgary Section outings are becoming so large that we are having to direct parties to several different mountains and to different routes on the same mountain in order to avoid dangerous crowding. This has led to a search for new routes on the old peaks.

At the north end of Grotto Mountain several steep, rocky ridges run up to join at the north peak. The second of these, as seen from the road, seemed to offer possibilities and we tried it on May 22. The party consisted of Isobel Spreat, Bruce Fraser and Bob Hind. We left Canmore at 7:45 a.m. and headed for a wooded depression well up the first ridge. Crossing this, we dropped into a canyon and climbed out the other side to attain our ridge. We roped at 9:45 at the foot of the first steep rocks. The route starts by a traverse around a corner to the left on an upward sloping ledge for about forty feet, where broken rocks lead to the ridge. Scrambling, mostly along the ridge, brings one to the foot of a wide, easy scree gully leading to the summit mass. Ignoring this we climbed straight up a vertical corner to the left of the gully and continued over some good climbing along the ridge, avoiding easy escape routes to the right, to emerge on the summit mass at the top of the above-mentioned gully. A walk of twenty minutes brought us to the North Summit at 12:20.

We started down at 1:10, straight down wide, easy scree slopes towards Canmore and then swung a little to the right to get close to the ridge we had crossed coming up. The only interesting feature of the descent was that, when blocked by a cliff band, we overcame this obstacle by climbing down a small tree which grew close to the cliff. We were back in Canmore, somewhat breathless, at 2:15.

MT. FARNHAM AND COMMANDER ICEFIELD

By John Noxon

In the past twenty years relatively few climbers have visited the southern part of the Purcell Range. In 1928 the Alpine Club of Canada held its annual camp on Horsethief Creek; before and after that year only a few climbers were responsible for the majority of ascents in this region, principally A. H. MacCarthy, J. Monroe Thorington, and Conrad Kain. Kain had his home in Wilmer at the mouth of Horsethief Creek and knew these mountains particularly well; he travelled them the year round and even made a winter ascent of Mt. Jumbo alone and on snowshoes.

In 1953 Bob West led a party of three on a brief trip up Horsethief Creek far enough to look up its tributary, Farnham Creek, and to see the fine climbing possible around the Commander

Icefield. It was on the basis of his report that a party formed to revisit the Farnham and Commander region in August of 1954. Bob and his wife, Peggy, were accompanied by Arthur Read, Peter Luster, David Smith, Mark Schroeder, Hall Close, and myself; the majority are members of the Harvard Mountaineering Club.

Mr. Tegeart, of Edgewater, packed us to the head of Farnham Creek, and August 6 we left the gear with him at the Horsethief Creek lumber camp where the road effectively ends, eighteen miles from Wilmer. We intended to take several days for the trip in, and try for a first ascent of Mt. Stockdale, near the junction of Farnham and Horsethief Creeks. We found that you must get fairly high before Stockdale can even be seen; when we had done this it became clear that this mountain is best reached from the Northeast by way of Stockdale Creek, and not from the south as we had attempted. We were at the end of a long semicircle of peaks with Stockdale midway along, and there was not time to traverse the summits between. Diminishing food made another try inadvisable so we planned to continue on to the head of Farnham Creek and the supplies dumped by Mr. Tegeart. We believe, however, that it could be possible to camp in the cirque formed by this semi-circle and to climb Stockdale and its neighbors from there.

Horsethief Creek is not an easy river to cross without horses; ours had gone out, and we concluded several wet and unsuccessful attempts at crossing by going several miles above the Farnham Creek junction to wide gravel flats where the water was shallow and less swift. Three or four miles above its mouth Farnham Creek splits into several glacial tributaries where we placed camp. It is a beautiful spot; the Farnham group on the East and the Commander Icefield rising directly to the South and West. Down Farnham Creek Valley, Mt. Stockdale stood out clear and embarrassingly obvious to us now that we were five miles away.

During the next two days we divided into parties of two and three and concentrated on the peaks around the icefield. Several groups climbed the Cleaver, largely a snow walk, but a fine view point. Bob oversaw first ascents of Centre and East Guardsman, small peaklets rising from the head of the icefield, and on the second day led a party to within 100 ft. of Jumbo's summit where they were turned back by bad ice. Arthur and I began this day with the intention of going up for a look over the col north of Commander; we ended it by traversing Commander, for by the time we reached the col this idea was more appealing than a return down over steep snow gullies and a large bergschrund.

Subsequently five of us packed a camp into the cirque on Farnham's west flank in order to climb Farnham and Sir Charles. Ours was to be the third ascent of Farnham; Conrad Kain and the MacCarthys had climbed it first via the north ridge, picking up the Farnham Tower along the way—an extraordinarily long and difficult route. In 1928 a Canadian Alpine Club party climbed a gully on the west side in order to reach the summit ridge. We avoided this gully by staying farther right and reached the ridge south of a large gendarme. Here the rope of three turned back owing to the late hour, while Bob and Arthur traversed the gendarme and continued on to the summit. The following day brought the end of what had been perfect weather. Nevertheless we decided to try Sir Charles by a new route on the south ridge, and the clouds parted obligingly just as we reached the top. For the first time we observed the Farnham Tower at close range and confirmed our earlier guess that it cannot be reached by a traverse from Sir Charles. The only reasonable approach apparently continues to be the original MacCarthy route up Farnham's north ridge.

The bad weather returned as rapidly as it had left us and we passed a few wet yet pleasant days measuring the retreat of the Commander glacier (discussed elsewhere by Bob West), exploring the upper end of Farnham Creek, and in erecting an imposing eight-foot cairn. By the 18th the

majority of our party prepared to leave; however Arthur and I resolved to take a few more days in order to reach the head of Horsethief Creek and at least to see the famous Lake of the Hanging Glaciers. This was, in fact, all we were able to do, for the clouds stuck to the mountains and the rain continued to drizzle. Yet even in poor weather the lake is a remarkable sight. The water is filled with small icebergs, and the lake is walled in on three sides by immense ice cliffs which pour avalanches down continually. We spent a lazy day wandering about in the flower-covered meadows north of the lake and late in the afternoon the sun even broke through occasionally.

As if to compensate for these pleasant moments the rain returned harder than ever; we took it for one more day, then returned down Horsethief Creek to the lumber camp where we hitched a ride back to dry clothes and civilization.

TRIP TO THE BUGABOOS

By Jo Kato

Spectacular granite spires rising sheer from a high snow-field belong in a mountaineer's dream. The Bugaboo Spires are a dream come true. So five of us, four from Calgary, and one Edmontonian to balance them, planned a brief climbing holiday away from our usual limestones and shales.

On the bright sunny morning of Saturday, July 17, Bob Hind, Jim Tarrant, Dr. Hal Worrall, Bruce Fraser, and I met in the dust in front of the general store in Spillimacheen where we sorted our gear. Bob had this time remembered his boots. The mountainous pile of equipment was happily loaded onto a half-ton truck and we were off.

But we didn't get very far. One half-mile, and we found the road across the broad Columbia Valley about two feet under water. About three hours were lost pushing the truck in thigh-deep swirling water for two hundred yards here, and we dubbed our trip "The Voyage to the Bugaboos", and even considered going to the Ramparts of the Tonquin Valley instead. However, we persevered and reached the far "bank", and so merrily on our way, with drying socks dangling from rear-view mirrors, and from every projection on the vehicle. Riding in the back of a truck up this road is quite a jolting experience.

No one had been up the road this year, so soon we were busy with axe and saw, clearing the way of windfalls. When about 6 miles from the main forks of the Bugaboo River, we were confronted by a bridge that was down, and here the truck was unloaded with much regret. The mosquitoes were voracious as we trudged with 65-lb. packs up the road past Bugaboo Falls, and finally reached the old mining camp cabin.

The view from this spot is superb! The summer sun was setting behind Snowpatch Spire, and the icefield glittered with the low, long slanting rays. Bob soon had supper prepared, and after the chores were done, we were quickly in our sleeping bags and soon asleep.

The next morning was another lovely day. We shouldered our heavy packs and set our eyes and our hearts upon the scene ahead and above us, and set forth for the foot of the moraine. With the late season, the streams were in full flood, causing some difficulties, and the snow-line was found rather low. A double carry was necessitated upon the upper half of the way to Boulder Camp. This campsite was under snow, but we cheerfully set up our home for the week.

Monday, July 19, was another beautiful day. We didn't leave camp till 8:30 a.m. and led by Jim, we skirted under the impressive south cliffs of Snowpatch, across the névé to the base of

the west ridge of Pigeon Spire. On the way, the "pigeon" could clearly be seen. From this point, a magnificent and close view of Howser Spires confronted our eyes, and challenged our desires. Pigeon Spire was a pleasant scramble. To climb on solid trustworthy granite with good companions in perfect weather, is an event to be enjoyed and remembered. At 12:30 p.m. the five of us sat on the summit and gloried in the view. We looked up at the South Tower of Howser Spires so close, and down at famous Snowpatch. We looked across at Marmolata, and at Bugaboo. And in the blue haze of distance could be seen the North and South Towers of the Goodsirs, and further south, the Military and Royal Groups. After a leisurely descent, we arrived back at camp at 3:15 p.m. to a tremendous dinner of cold roast beef a-la-Peggy Hind. I doubt if ever another party will eat as well as we did at Boulder Camp. We even had a choice of several desserts at mealtimes, and tea, coffee, or cocoa as well.

This was the end of the good weather! The following morning we set out to climb Bugaboo Spire. We trudged under the north cliffs of Snowpatch and up to the Snowpatch-Bugaboo col. Bob and Jim roped together and trailed behind us to take climbing pictures of the first rope. From here the ridge of Bugaboo was followed, but the sprinkling of snow became a snowstorm with a miserable wind. We reached the 10,000-ft. level at the famous Gendarme in a blizzard, and decided that to persevere would be foolhardy. A hasty retreat was made utilizing two rappels, and a very fast, long, and thrillingly steep glissade was made from the col down to the snowfield. Acres of red snow could be seen here.

We did not know it at the time, but our climbing activities were over in this district. It snowed for four days! We spent our time wisely and well, cooking up everything from bannock to pancakes. With a kitchen of five primus stoves and two extra gallons of gasoline, you can see that time did not hang too heavily. When we weren't cooking and eating, we lay in the tents and played a highly intellectual Calgary game. I can hardly wait to inflict this game on those at the next rainy summer camp. I was also introduced by Calgary to the literature of Mr. M. Spillane.

The two parties had set up camp before we left on July 24. We packed up camp with mixed feelings of relief at escaping the weather, and reluctance at leaving such a magnificent setting with such challenging climbs still undone. As a Calgarian said, "Boulder Camp has the rest-room with the best view in the world".

It was good to get off the snow and be back under a roof at the Forks. An icy sponge bath was shivered through, and a leisurely afternoon spent washing socks and drying tents.

The following day when we walked out to the truck, it turned out, of course, as lovely as the day we had packed in.

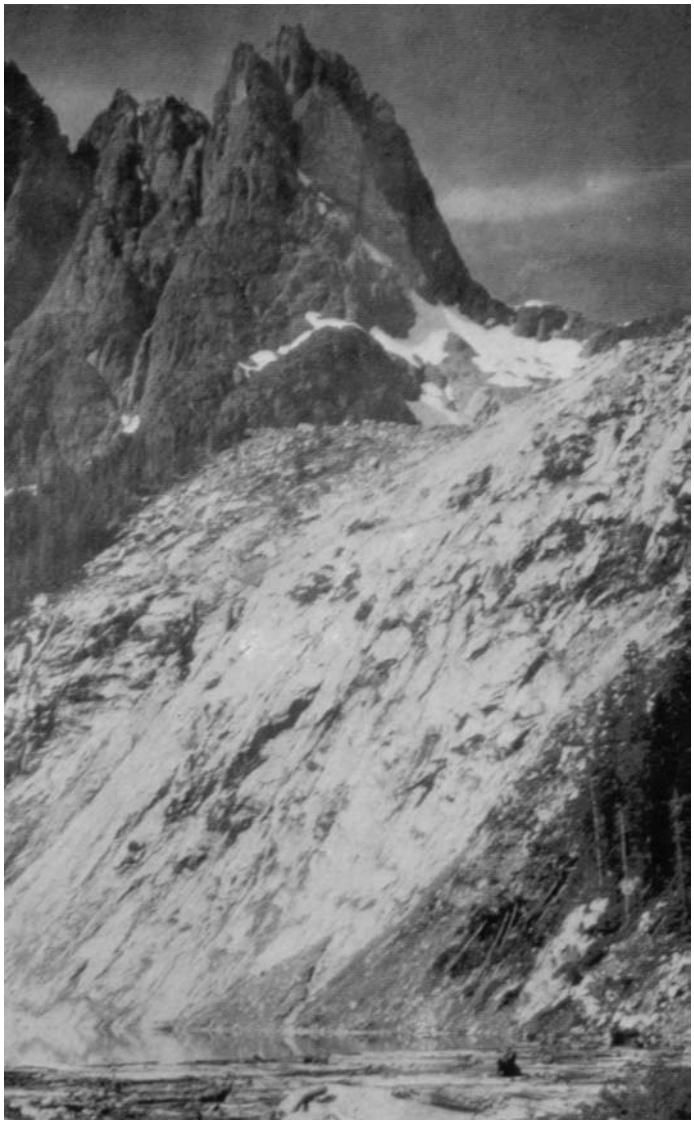
A TRIP TO STRATHCONA PARK

By Cyril Jones

A few of Vancouver Island section members held a seven-day trip among Vancouver Island's interesting Strathcona Park Mountains, in the upper part of the Elk River Valley where Mt. Colonel Foster, Mt. Elkhorn, King Peak, and Puzzle Mountain offered a challenge to our group.

On Saturday, August 21st, a party of 13 drove by a very fair logging road to the Elk River Forks about 32 miles from Campbell River and half a mile below Drum Lake.

Leaving our cars there we packed our camp three and a half miles up stream where the party (except for two who went astray) made themselves more or less snug before dark. The next day (Sunday) was spent by the party, including the stragglers, in fixing up camp, and packing more supplies from the car park.



Big Slide On Mt. Colonel Foster,
Strathcona Park, V.I.
Photo Cyril Jones

On Monday a party of five reconnoitered the ridge towards Elkhorn and King Peak, a small party explored the steep slopes on the west side of the river towards Puzzle Mountain and a party of five moved up stream to establish a higher camp on the south end of a lake at the base of Mt. Colonel Foster. The main camp group spent Tuesday quietly doing local chores and exploring down stream to Drum Lake near the car park.

The Mt. Colonel Foster group returned to the main camp on Wednesday having had an exhausting yet very interesting two days at the higher camp. They were full of enthusiasm for a return to Mt. Colonel Foster which they had found to be a mountain worthy of any climber's interest.

Next day this party augmented by five others returned to the higher camp. It was seen from there that the vicinity of this lake was an excellent base for attacks on Mt. Colonel Foster and Mt. Elkhorn but it was decided that the short time left should be spent on Mt. Colonel Foster.

Friday the party divided into two groups, one to the north col at the head of the big slide, whilst the other returned to the south col where they had made some reconnaissance earlier in the week.

The northerly party reached the col about noon and found that this route did not offer any feasible approach to the top. After a rest and a short climb along the base of the west face we returned to camp wet through and got a good fire going while waiting for the south col party.

The south col party found no trouble in reaching the summit ridge by way of the south col but found progress along the ridge more difficult. After an interesting day they found themselves on a local summit only fifty feet lower than the main peak separated from it by a break in the ridge which presented difficulties great enough to prevent them crossing it that day. Reluctantly they abandoned it and all returned to camp.

Next morning we all moved down to our main camp where Mrs. Lash and Miss Dans welcomed us with a first class meal. Saturday we moved on down to the cars and thence home.

Although there has been a successful conquest of any peak the camp was a great success. We had had a happy time among the beauties of our Island's great outdoors, had learned a lot about Strathcona Park and found a mountain so challenging that we look forward to returning, and hope for better weather next time.

The following is an interesting note from Mr. Jones explaining the big slide on the picture of Mt. Colonel Foster. "The Mt. Colonel Foster picture does not show the whole summit ridge but shows an interesting slide. An older photograph of the mountain taken during the topographical survey of the 1930's show this as a wooded slope. It appears that a large part of this most northerly turret broke away probably during the 1946 earthquake and fell down this slide into the lake forcing the water up about 100 feet whence it rushed down the valley causing a bare rocky slide area for about a mile and a half."

PORTAL CREEK AREA—THE TRIDENT RANGE

By Archibald Macintosh

With the Astoria Creek trail now the usual approach to The Tonquin, the Portal Creek Trail would appear to be little used. The condition of the trail gave that impression when we located our camp in The Portal on the north side of the creek in August, 1954. Abundant signs showed that this was the site of a large hunting camp many years ago.

Vertex Majestic Estella Manx Terminal

The Trident Range From Franchère.
Photo Macintosh

From this camp Mike Smith and I made our approach to Vertex Peak over Maccarib Pass and thence to the south-west ridge. The climb itself is perfectly straightforward all the way. The panorama from this previously unclimbed summit is rewarding. To the south-west across the Tonquin Valley one has an unparalleled view of the Ramparts, with Old Horn, Thorne, Chevron, and finally Edith Cavell to the south. In the distance behind them we could see the Scott Glacier, Hooker, and the familiar triangle of Columbia.

To the east is the drop into Circus Valley with the fine cirque of the Trident Range enclosing this valley to the north. In succession from Vertex lie Majestic, Estella, Manx and Terminal. Of these peaks Estella[1] is by far the most appealing. In 1930 N. D. Waffl, later lost on Mt. Robson, approached it via Portal Creek and after his successful solo climb wrote an account which was unfortunately lost. He compared it to the Dru and rated it as the best rock climb he had seen in Canada.

On Franchère we found a cairn but no record. The approach from Portal Creek up the valley between Aquila and the outlying ridge of Chak is a beautiful one dotted with a succession of small lakes. The chosen route straight up the north face, is a couloir climb on increasingly steep snow until one moves onto the rock whence two hundred feet of interesting climbing leads to the gentle summit ridge. From this summit one again has magnificent views in all directions, with the perspective on Vertex, Majestic, Estella—the Trident Range—particularly good.

Some bad weather and lack of time made our stay all too short. We recommend this area with enthusiasm as a delightful place to camp and for climbing which is interesting without being too demanding.

MOUNTAIN RESCUE ON THE WEST COAST

By Paddy Sherman

Acting on the sound principle that it is more comfortable to give a few advance lessons on safe climbing than to carry out a search in dangerous conditions, Vancouver section has taken a leading part in helping to organize the West Coast rescue squad.

Many of its members have volunteered for the Alpine Division of the Mountain Emergency Squad, which is based in Vancouver. The squad, composed of the local First Aid Ski Patrol, ski clubs, B. C. Mountaineering Club and Vancouver section members and others, has worked out a detailed system of call-outs, and ties in closely with the RCAF Search and Rescue service, and the Royal Canadian Mounted Police.

The bulk of its work is confined to the North Shore mountains of Vancouver. Each of the main local peaks has a picked squad of skiers who know the slopes well. Usually each group has enough personnel to cope with accidents on its own mountain.

But the Alpine Division, under the direction of Bob McLellan, is kept in reserve as a sort of province-wide flying squad, ready to fly with the RCAF to any part of the province when rock or snow-and-ice rescue work is needed on high peaks.

Luckily, from the point of view of climbers, most of its work recently has been in connection with non-climbers—the last two calls have been to a plane crash, and hunt for a missing prospector. More detail on these is given below.

Biggest concentration of energy, however, is put into making it unnecessary to call on these

1 C.A.J. XIX, 80.

volunteers. Again and again the stress is laid on education of the public, climbers, hikers and skiers in safe habits among the hills. Through their clubs, lectures to schools, and posters, the squad's officials have emphasized the main safety points.

Don't travel alone.
Tell somebody where you are going; when you'll be back.
Stick to that schedule.
Take proper equipment—especially light and matches.
Don't adventure beyond your strength and skill.
Don't travel unknown country in the dark.

These points have also been hammered home in mountain-craft lectures to aspiring climbers. Points stressed in the courses include choice of clothing and equipment, use of rope and axe, map-reading, route-finding and first aid.

For cases where the advance precautions have proved useless, the emergency squad has filed key telephone numbers with police and RCAF, with a chain system for calling out the size and sort of team required for the specific assignment. Usually a strong team can be mustered in little over an hour. In such cases the RCAF has a plane standing by ready to whisk them off to the nearest base of operations, and has arranged for air drops of supplies and extra equipment once the climbers have reached the accident scene.

Under the close liaison which exists with the RCAF, it has been possible to train some of their men in mountaincraft, and this training still goes on. Airmen whose job is rescue work thus get invaluable training in the more technical points of alpine rescue—and the volunteer instructors get an opportunity to make a seaplane flight to some normally inaccessible spot where there is new climbing!

The instructors themselves are kept up to date on the latest techniques of rescue work by co-operation with the Pacific Northwest Mountaineering Safety and Rescue Organization. Delegates attend their conferences below the border, and see regular demonstrations of technique and innovations in equipment.

Members of the skiing sections of the squad are kept busy with bones bent and joints twisted by weekend skiers, but the climbing section has had only two calls in recent months; one to Jervis Inlet, just up the coast from Vancouver, and the other to Mt. Arrowsmith on Vancouver Island.

The first was on Sept. 1, 1954. A prospector named Paul Beargard vanished in thick bush while staking claims at the foot of Diadem Peak near Britton River four days earlier.

The squad was called in on Sept. 1. Early next morning they landed in a Sea Otter at Britton River—Ian Kay, Bob McLellan, Dan Carr, Keith Ingold, Herman Genschorek, and Paddy Sherman. Also on the spot was a party of 25 RCAF men.

McLellan and Kay went by helicopter to base camp, nearly 3,000 feet high, on the far side of a steep-cliffed ridge, ready to organise the parties. Carr went in next, but had to return as the weather had clamped in, and it was impossible to land. The weather was worsening, so the remaining four began to move in on foot. The airmen were to follow.

Three hours later, as they began to climb the final cliffs, a shout from behind stopped them. McLellan and Kay had come back down them a different way. Minutes after the pair had arrived at base camp, other searchers had found Beargard! Weak, and injured in a fall, he had

stood upright for four nights, afraid to lie down for fear of not awakening. Bad weather penned him in camp for several more days, but he made a complete recovery. The would-be rescuers managed to trek out by dark. They were made comfortable in a logging camp, and flew back to Vancouver early next day.

The next trip was more spectacular, and just what the group exists for. On Oct. 10, 1954 an RCAF Expediter with four men aboard vanished near Mt. Arrowsmith while on a routine flight. Two Austrian climbers, Ulf and Adolph Bitterlich, of Port Alberni, had been climbing on the mountain in thick weather, and pinpointed the spot where they thought the crash occurred. But all-out air search had revealed no trace. The RCAF decided it would not be safe to put their own untrained men into the ice-slicked rocky cirque where the Bitterlichs thought the plane lay. So Flt. Sgt. John W. (Red) Jameson, head of the RCAF's para-rescue section in Vancouver, asked for squad men.

This time the group was: Jack Atkinson, Dave Blair, Peter Thomas, Keith Ingold and Paddy Sherman. They arrived at the airport in the dark within two hours of the call on Oct. 12, and landed at RCAF station Comox on Vancouver Island just after midnight.

The Bitterlichs and Jameson briefed them. Next morning at daylight they took off in a big Sikorski S-55 helicopter. At Parksville, at the foot of the mountain, the party split, and was flown in pairs in 'copters of the RCAF and U. S. Coastguard.

These first made a detailed air search of the peak—including a thorough look at the spot where the wreckage was eventually found. Then as the helicopters hovered in a stiff breeze about 10 feet above a rocky col about 5,000 feet high, the party leaped out.

Luck and a very fine piece of work by Ulf Bitterlich led to success within an hour. He and Atkinson were first to land, and when Ingold and Sherman joined them, Bitterlich showed, through binoculars, a thin wavy line in the snow about 400 yards away. All four looked, and used two rocks in a diamond-shaped rock cluster as a guide line. There was time to spare while waiting for the third group, so Bitterlich and Ingold moved off for a closer look at the line. As they crossed fairly steep, ice-coated rocks, Sherman and Atkinson saw that the ice-coated "rocks" in the diamond were in fact pieces of wreckage coated with ice-feathers. The line was a half-buried propeller.

The whole party went over, and found the main wreckage in a small bergschrund. All aboard had died instantly when the plane slammed into a sheer cliff. The party retrieved log books and numbered equipment, then returned.

By early afternoon all except the Bitterlichs were back in Parksville, after some hectic struggling to pull themselves into the helicopters. The Bitterlichs stayed with the RCAF, and cut steps in the ice for an RCAF party to reach the wreck and remove the bodies.

More trouble was still to come, however. On Nov. 7 two Victoria climbers went to see the scene. One broke his leg on the cliffs above. His companion tied him to a rock, then dashed down for aid. Luckless Ulf Bitterlich again went to the rescue, with Leo Lynn, 16, also of Port Alberni. They climbed through the darkness to reach the injured man, then, as they were within a few feet of him, the wind blew down a rock onto the youngster's head. So Bitterlich spent the night close to the summit with two injured on his hands. Lynn managed to make his way out with an RCAF escort next day. Bitterlich stayed to supervise the difficult rescue, helped by RCAF, RCMP and other volunteers.

His fellow-townsfolk were so impressed with his conduct on these occasions, and in a previous fatal accident on Mt. Septimus, that they had recommended, at the time of writing this, that the Royal Humane Society should honor him with an award.

TRAGEDY ON MT. VICTORIA

By Harry Green

The worst accident in the history of climbing in the Canadian mountains took place on July 30, 1954, on Mount Victoria. A party of eight Mexicans, seven women and a man, had been camping near the teahouse at the Plain of Six Glaciers. The man was a Mexican guide. On Thursday, July 29, the whole party went up to the Abbot Pass Hut. On Friday morning, six of the women and the guide climbed the South Peak of Victoria. They did not follow the usual route by the ridge, but went up on the eastern snow face. There were two ropes. Three of the women and the guide were on one and three women on the other.

There was a great deal of snow on Victoria last summer. It was firm when the party made the ascent in the early morning. They did not go further than the South Peak and started the descent about noon. They proposed to come down by the route they had followed going up. The top two or three inches of snow by this time were quite soft, as it was a fine sunny day. The place where they commenced to come down on the snow was very steep, and they made slow progress although all the members of both ropes were moving at once.

The first rope of three women and the guide had reached a point on the east face only a short way south of, and below, the South Peak when one of the women slipped and pulled the others down. Apparently the guide was unable to stop the fall with the result that the whole four went down the snowface, hit the cliffs and catapulted out into the so-called "death gully" on the Lake Louise side of Abbot Pass. They landed on the glacier near the top of the gully.

When the four bodies were found they were still roped together. It was apparent that they had all been killed instantly either when they hit the cliffs or when they hit the ice.

The fall was something over 2,000 feet. Only the top two inches or so of snow went down with the slide, and the snow below was still firm.

After the first rope fell the three women on the second rope moved down a short distance, but after various tentative movements in one direction and another they halted and remained crouched on the snow face till the rescuers reached them.

The fall was observed separately by two men at Lake Louise but these men were not climbers and did not apparently fully realise what had happened. It was Walter Feuz who informed E. C. Fitt, the manager of the Chateau Lake Louise, and myself that there had been seven climbers on the south face of Victoria and that only three remained. Walter said he had not been watching them continuously but he was sure four must have fallen as they had not had time to get down since he last saw them on the snow face.

Mr. Pitt at once organised a rescue party headed by Ernest Feuz. Charlie Rowland, Ray Wehner and Frank Campbell, medical students and all young fast climbers, and myself went with Ernest. It naturally took some time to organise the party. Walter Feuz ran us up the lake in the motor boat. The pack horses were out but as soon as they came back they were to follow with stretchers, etc.

The horses never made up on us and after we had waited for some time at the Teahouse at the Plain of Six Glaciers, we decided to push on.

We felt there was little chance of finding alive those who had fallen but we were afraid that the three women sitting on the snow face might also fall at any time.

We started up the Pass at 4:40 p.m., and climbed quickly to where the bodies were lying. It did not need a doctor to tell us they were all dead. Therefore we did not make more than a brief

examination before pushing on to reach the living.

We made the hut by 6:40 p.m. We were only a few yards from the hut and our thoughts were all about the women still on the snow face when suddenly the hut door opened and a gaily-clad, smiling Mexican girl waved us in. She had been in the hut all day and had been trying to get the stove going to prepare food for the others on their return. She spoke no English; we spoke no Spanish, so we could not make her understand what had happened. It was a macabre situation, the poor girl in her bright clothes happily preparing to get a meal for four friends we knew were lying dead on the glacier.

After our fast climb, Charlie was feeling the most like pushing on with Ernest without a breather, so these two went on up the ridge, while the others took over from the girl and got a good fire going, blankets warmed, hot tea and soup ready.

It took Ernest and Charlie only 35 minutes to get up on the ridge above the three women. Ernest went out as far as possible and got a good belay on his axe and Charlie went down on two ropes tied together, 150 feet and cutting good steps. He had a job to get the women to move; they were nearly frozen and paralyzed with fear. However, he got a rope tied to them and finally got them up to Ernest. It took another two hours to get them down the simple rocks of the ridge. So it was 9:40 p.m. before they got back to the hut.

The three lads took off the girls' boots and rubbed their feet, wrapped them in blankets and poured hot soup and tea into them. By 10:30 p.m. the girls were well enough to start down. Ernest took the one who had been in the hut all day and who was in the best shape and one of the others. Frank and I followed with another roped between us and Ray and Charlie brought the little leader of the party. She was the most upset of them all. We only had two little flashlights—the girl in the hut had one and Ray's rope had one but Ernest wanted to get them down as soon as we could and we also wanted to get them past the bodies in the dark, so they would not see them.

It took till after 1 a.m. to get the girls to the Teahouse at the Plain of Six Glaciers. Luckily, except for some spots where there was avalanche ice, the Pass was in good shape. Irene Stanfield, who runs the Teahouse, and her helper were in bed but they got up and got food and tea for us all. Irene put the four Mexican girls to bed in her little cabins and Frank and Charlie also stayed there. Ray, Ernest and I went on down to the Chateau. The following day a larger party went up and brought out the bodies.

The accident was due to ignorance and inexperience. The mistakes made were:

1. Attempting to come down the steep snow face instead of the rock ridge.
2. Wearing crampons on soft snow.
3. Moving all at once on a dangerous snow slope. Possibly also:
4. Not immediately using the proper technique to stop the slide before it developed speed, although the place where the accident occurred was so steep it would have required strength and skill to hold four people.

The guide had apparently climbed quite a lot of mountains. He had McKinley, Popocatepetl and Matterhorn written on his jacket. However, he apparently had no knowledge of snow and ice on our mountains. It would seem that all mountain ranges develop dangerous conditions which are not always apparent to strangers to them.

WHAT'S IN A NAME?

By Rex Gibson

The task of selecting a suitable name for some previously anonymous person or thing is always a difficult one. Whether one is naming a newly-born infant or a newly-discovered mountain, it calls for careful thought and a nice discrimination to find just the right name. Of course where infants are concerned there is a more limited choice, which perhaps makes the task even more difficult.

In British Columbia, and I speak mainly for the country west of the continental divide and the 120th meridian, we are dealing with an enormous mountainous area some 330,000 square miles in extent. Hence the problem of finding really-suitable names for the lesser-known mountain ranges and their individual peaks is a formidable one.

The Queen's Printer in Ottawa has just recently produced an excellent gazetteer for B.C. which contains all the place names which are officially recognized up to and including 1953. This volume of 640 pages containing about 30,000 names is sold at the modest price of $1.00. All those aspiring to name mountains in this province should possess a copy and thus be enabled to avoid the pitfall of duplication. A glance through the gazetteer will reveal how bad this duplication already is, and mountaineers should avoid making "confusion worse confounded". For example, no fewer than twenty-one "Bear Creeks" are listed and the names Cariboo, Goat, Moose, Wolf, etc., are used ad nauseam. As far as possible the map-makers are trying to avoid using the same name more than once on any given map sheet.

The gazetteer on page 18 lays down the principles on which future naming should be done, and I will recapitulate those that apply particularly to the naming of peaks and then add some remarks regarding mountain country generally.

1. Use local names wherever possible. Many of the local short and euphonious (names such as Omenica, Nahanni, Kechika, Mistaya and the like) make excellent mountain names. In many cases such names are already applied to the nearby creeks or rivers, and the mountains and glaciers in which they originate should bear the same name. Wherever possible, in submitting such names, the meaning of the word should be given.

2. Duplication of existing names should be avoided at all costs. The more obvious duplications to which I have referred above belong to the pioneer stage, but less obvious examples occur, such as "Mont Brouillard", recently suggested for a peak in the N. Purcells. This name had already been used by the Alberta-B.C. Boundary Commission for a peak in the Clemenceau region.

3. Regarding the use of personal names the gazetteer lays down the following rule: "Such names should be applied rarely and only those of eminence, of those who are prominently connected with the life, activities or development of any locality, should be thus honoured. Names of men now dead may be perpetuated as it is seen fitting thus to honour them." This rules out the practice of naming peaks after persons who are still living, however worthy they may be, except in most exceptional cases, such as the naming of Mt. Eisenhower, where it was desired to confer a signal honor on a great public figure.

4. Named peaks should be triangulated wherever possible or at least identified beyond any possible doubt by a reliable sketch map. This avoids the same peak being given different names by two parties who have seen it from two different directions. Climbers should also bear in mind

that the fact of having made a first ascent of an unnamed peak does not ipso facto confer on them the right to name every other peak in sight, nor even, for that matter, of naming the peak on which they stand.

5. When naming a peak or lake the scale of the map covering the area should be borne in mind. One cannot get many names of small features on a map drawn to the scale of 8 miles to one inch. As the mapping of the province proceeds and larger scale maps are produced, minor peaks may be named and find their place on the map.

6. The Surveys and Mapping Branch of this province would prefer a number system as a temporary expedient in new mountain groups. This number system should relate to the highest peak of the group for which a suitable name should be found. The surrounding peaks could then be identified by combining the initial letter of the named peak with the number allotted. The Survey of India used this system extensively when mapping the Himalaya and Karakoram Ranges: the designation K 2 is an outstanding example.

As a guide to the correct nomenclature of the various mountain ranges and groups in B.C., there is an excellent map at the end of the gazetteer, although necessarily the scale is somewhat small. It shows quite clearly the geographical boundary of such ranges as the Purcell, Selkirk, Monashee, and Cariboo Mountains, which lie just west of the Rocky Mountain Trench in south-eastern British Columbia.

I have discussed these suggestions with the Chief of the Geographic Division, Surveys and Mapping Branch, Department of Lands and Forests, in Victoria and he is in full agreement with the principles set out above.

THE CLIMBER'S GUIDE

By Dr. J. Monroe Thorington

The third edition of *A Climber's Guide to the Interior Ranges of British Columbia* (American Alpine Club, 195S) concludes a period of 35 years of guidebook compiling and represents the writer's final effort in this field.

In summarizing the literature we are obliged to include a considerable amount of unofficial nomenclature, some of which will not be accepted by the Geographic Board of Canada.

In their publication, *Place Names in Alberta,* one finds the names of peaks accompanied by altitude, location and the origin of the nomenclature. *The Gazetteer of Canada: British Columbia* (Ottawa, 1953) does not include elevations or nomenclature origins. Both publications include the peaks of the Alberta-British Columbia watershed.

Publication No. 52 of the Geodetic Survey of Canada: *Altitudes in Northern British Columbia* (Ottawa, 1949) is the best source for elevations in that province.

For the guidance of climbers, particularly those visiting new areas where the addition of names appears desirable, it is advantageous to call attention to the rules laid down by the Geographic Board, as this is the only possibility of securing adoption of nomenclature. These are summarized below in their application to mountains:

1. Local use to have preference. Unless good and sufficient reasons to the contrary exist, the name which is in common local use shall be given preference over alternative names. Where a choice is offered between two or more names for the same place or feature, all sanctioned by local

usage, that which is most appropriate should be adopted.

2. Names corrupted or changed. A name which has been corrupted or changed should, if not too firmly established by usage, be restored to its original form.

3. English possessive form. In English geographical names the possessive form should be avoided.

4. Names consisting of several words. Proper names, or separated names already established by local or map usage, should not be combined.

5. Duplication of names. Duplication of names within one province is objectionable. This is particularly the case in regard to names suggested by peculiarities of the topographical features designated, such as their form ,vegetation or animal life. A number of descriptive names applied to mountain peaks, e.g., cone, needle, bald redtop, etc., are undesirable.

6. Personal names. Such names should be applied rarely and only those of eminence, of those who are prominently connected with the life, activities or development of any locality, should thus be honored. Names of men now dead may be perpetuated. Names of mountains called after persons should be preceded by the word "Mount" or by "Mt.", otherwise the word "Mountain" or "Mtn." should follow the name.

7. Generic terms. Generic descriptive terms should be appropriate to the nature of the features concerned. The use of names without generics should be avoided.

A SUMMER ON ROCK

By Keith Ingold

July, 1954, was a poor month for climbing anything in the Rockies, except for the proverbial "promenade des vaches." I did my share of these, but have picked out ascents where the hands were used as well as the feet, and the ascents were more than a nightmare in a treadmill.

While driving up the Banff-Jasper Highway, we were seduced from our original plans by the magnificent form of Mt. Eisenhower, rising dimly through mist and rain. At the base of the south-east tower John Wilkinson and I had a long argument trying to relate the printed word of the guide book to the cliff in front of us. At the end, we picked our own route roughly midway between the two routes mentioned in the book. We were soon impressed by the steepness of the rock, but fortunately the holds, though loose, are large. The ascent took about three hours.

A fortnight later, Anne and Ted Church and I decided the Bugaboos might be more rewarding. The ride up the Bugaboo road has been described before. I can only imagine it has deteriorated since then.

After three days of watching rain and snow through the flap of a two-man tent, we tired of the view, and traversed Crescent Towers. On our last day the weather relented, and despite some snow and ice on the rocks, we were able to climb Bugaboo Spire. The great gendarme is now very safe, with both an expansion bolt —put in the previous year by Iowa Mountaineers—and a piton. Being by nature improvident but cautious, I made the mistake of clipping the rope to both. A little higher I found that friction of the rope had converted the so-called finger traverse from an exercise in balance to one in brute force and ignorance. Fortunately brute force prevailed.

About a week later Pat Duffy and I drove into the Kananaskis for an attempt on 9,6oo-foot Mt. Blane, the highest unclimbed peak in the southern Kananaskis.

Our line of approach put us at the base of 9400-foot Mt. Brock, Blane's northerly neighbor, and also unclimbed. As the afternoon was advancing, we contented ourselves with the ascent of this

mountain by its north-east face. It made a pleasant 1000-foot rock climb of about grade three. After building a summit cairn, we returned to the car before dusk. That we were able to make the first ascent of a considerable peak in a mere 3½ hours from the road speaks highly for the possibilities which the new Coleman-Kananaskis Trunk Road has opened up in this wonderful region.

From the top of Mt. Edith earlier in the summer, Pat and I had been filled with enthusiasm at the sight of Louie, rising like a rock dagger towards the sky. So next morning, my last in the Rockies, we scrambled up 1,500 feet to lunch on an airy ledge. We roped up here, and the climb was delightful for about 1000 feet on high-angle firm rock.

Then came the final 400-foot chimney, which, choked with ice, was hard work to wriggle up. The descent, though abrasive, was fun. In spite of a long rest on the summit to admire the view, we were off the mountain before dark.

YOUR CLIMBING: SPORT OR RELIGION?

By Isaac Rosenfeld

(Reprinted from the New York Times Book Review)

The more I read the literature of mountain climbing, the more convinced I am that mountain climbing is not a sport. Surely Maurice Herzog's *Annapurna*, with its extreme suffering and misfortune, and Sir John Hunt's *Conquest of Everest*—that masterpiece of logistics—should suggest a revision of the conventional view. For how can one call sport an activity which draws hundreds of men away from home, to shoulder heavy packs and carry them, panting in thin air, up walls of rock, snow and ice, in constant peril of their lives? As an American I have taken by image of sport from baseball: I think of DiMaggio in center, loping off at the crack of the bat, to shag a fly with careless ease. Even the more reckless sports, such as motorcycle or auto-racing, are conducted according to fixed rules, on flat ground, which stays put; a man knows what to expect. At its wildest, sport is safe—in the sense of the known, the natural.

Grace, skill, teamwork, competition and excitement to the contrary, mountain climbing is no sport, but a branch of theology. I base my conclusion on the frequently quoted words of one of the greatest climbers of all time, George Mallory, who lost his life on Mount Everest during the expedition of 1924. When asked why he wanted to climb Everest, Mallory simply replied, "Because it is there."

Now this is hardly a reason. Reasons lead us beyond the thing done, to consideration of intentions and consequences, practical ends. Yet one must not say that Mallory's reply expressed no reason at all, for it was a compelling reason, as anything must be which leads men, presumably sane, to risk and lose their lives. The reason for an activity which is neither practical nor gratuitous can only be intrinsic; it is done for its own sake. But then wouldn't Mallory's famous statement apply to any object of sport, such as swimming the English Channel? That, too, is "there."

The distinguishing characteristic of Mallory's words is that they are primarily religious in nature: their exact equivalent in meaning is to be found in the sacred writings of the Hindus, in our own Holy Bible, and no doubt in similar texts. In the Sanskrit it is written, *Tat vam asi,* which means, "That Thou art"; and the Lord says to Moses, "I am that I am." All three statements are alike in being ontological—they make the assertion of existence, that it is. Moreover all three statements are identical in meaning, and differ only in the person. In the first person, the statement is, "I am…," in the second, "Thou art…" and in the third, "It is…" Mallory was speaking the language of theology.

My case does not rest on linguistic analysis alone. The connection between mountain and godhead has long been recognized, however vaguely, in mythology and religion. There is Mount Olympus (to say no more of Mount Everest, or Chomolungma, "the home of the gods"), there is Mount Sinai, there is the Sermon on the Mount; and even the tourist taking colour shots feels himself in the Presence. An analogy, somewhat nearer the point, would liken the ascent of a mountain to man's striving toward God. Herzog and other climbers have reported the sensations of light-headedness and extreme impersonality, the double vision and hallucinations induced by lack of oxygen as one nears the top; the analogy to the mystic union should be obvious.

As for the temptations that beset the way, John Muir, the naturalist, recounts many proud impulses toward daring and inevitable self-destruction on the way up, during a climb, if I recall, in the Tetons; these are surely temptations of a demon. That it is a difficult (well night impossible) ascent is certainly no news to a Christian, and neither is the fact that the ascent, the symbol of redemption, implies the symbol, and sometimes, alas, the actuality, of the fall. It is worth noting in this context that the descent from a mountain is the hardest part of the climb. The mystery of Grace is fully symbolized.

Enough analogies. Whatever man's passion for conquering the highest peaks may mean symbolically (motivations running the range from sex to nationalism have been assigned to it), it has a plain and simple, literal meaning: the impulse, informing all our culture, which has driven the Western world toward the limits of human experience. To stand at the highest point is to occupy such a limit. Here ends the human world, farther one cannot go; at the limit of our experience one encounters that other world, of which one can only say the word that— bare being, mere structure, the "thatness" of the universe and of God. Mountain climbing is the literal metaphor of this encounter.

I am not dismayed by the fact that Sir Edmund Hillary, on returning from Mount Everest spoke of having admired the "grand view." Standing at the topmost point, he had earned the right to look down.

WHY CLIMB?

Why climb mountains? . . . No answer is completely satisfactory. Perhaps there is no single answer; perhaps each climber must have his own reasons for such an effort. The answer cannot be simple; it is compounded of such elements as the great beauty of clear, cold air, of colours beyond the ordinary, of the lure of unknown regions beyond the rim of experience. The pleasure of physical fitness, the pride of conquering a steep and difficult rock pitch, the thrill of danger—but danger controlled by skill—are also there. How can I phrase what seems to me the most important reason of all? It is the chance to be briefly free of the small concerns of our common lives, to strip off non-essentials ... in short, to come down to the core of life itself.

Charles S. Houston in "K2: The Savage Mountain" (McGraw-Hill).

SHARED ADVENTURE

We shall not forget those moments of great living upon that mountain. The story of the ascent of Everest is one of teamwork. If there is a deeper and more lasting message beyond our venture than the mere ephemeral sensation of a physical feat, I believe this to be the value of comradeship and the many virtues which combine to create it. Comradeship, regardless of race or creed, is forged among high mountains, through the difficulties and dangers to which they expose those who aspire to climb them, the need to combine their efforts to attain their goal, the thrills of a great adventure shared together.

Sir John Hunt in "The Conquest of Everest" (Dutton).

HOUSE OF GOD

I had not expected to set eyes on Mikeno again, but at a bend on the road it could be seen with its cathedral peak silhouetted against a reddened sky. ... I felt the mountain to be so close to me that I wanted to put out my hands and stroke its sheer sides. Here was the real house of God, lasting, incorruptible, divine. . . . Once again I sensed that supreme elation, not of conqueror but of a privileged human being who has been permitted to worship at this shrine mountain. I never speak of having conquered Mikeno—we simply climbed the mountain. Personally I felt that the only one to be conquered was myself. Previously I must have held a certain amount of fear when looking a Mikeno from near by, but having climbed it I no longer feared it. I had been intimate with it after the manner of a lover . . . and, as with a lover, the last barrier of reserve had been removed.

Earl Denman in "Alone to Everest" (Coward-McCann).

NEW ASCENTS AND VARIOUS EXPEDITIONS

Rocky Mountains—Main Range
Mount Sir Alexander Group

Mt. Ida (10,472 feet). First ascent, July, 1954. Fred Dunn and party.
Mt. St. George (9,127 feet). Second ascent, July, 1954. Same party.
First ascents were also made of Mt. "Erastus", "Arch Mountain" and "The Dragon". No estimated heights given.

Jasper Area—Trident Range.

Vertex Peak (9,600 feet). First ascent, August 11th, 1954. A. Macintosh, Michael Smith.
Franchère Peak (9,225 feet). Second ascent. August 12th, 1954. Same party.

Rocky Mountains—Main Range
Lyell Group

Mt. Lens (10,160 feet). First ascent, July, 1954. Sterling Hendricks. Don Hubbard.
"Icefall Peak" (ca 10,200 feet). First ascent, July, 1954. Hendricks, Hubbard, Ken and Pim Karcher, Pete Peterson, Jane Showacre.

Kananaskis Area

Mt. Packenham (9,250 feet). First ascent, July 4th, 1954. Stan Pearson, Peter Rainier.
Mt. Evans Thomas (9,500 feet). First ascent, July 4th, 1954. Jeanette Farman, Isabel Spreat, Bill Lemon, Graham Ross, Milton Hicks, Jim Tarrant.

Goodsirs Area

Allan Peak (10,627 feet). First ascent, July, 1954. Club party led by Walter Perren; Joan Schultz, Heather Stewart, Mary Jury, Margaret Kirk, Eric Plumpton, Bill Angus.
Aquilla Mountain (ca 9,000 feet). First ascent, July, 1954. Eric Plumpton, Miles Rucklidge.

Howson Range—N. Central British Columbia

(Lat. 54° 30' N. Long 127° 45' W.)
Un-named peak (en 8,500 feet). First ascent, July 7th, 1954. Alex Faberge, Ethne and Rex Gibson, Polly Prescott, Dave Wessel.

Purcell Range—Wedge Peak Group

"Wedge Peak" (9,870 feet). First ascent, July 12th. 1954. Bill Briggs, Richard Morden, Peter Robinson.
"Barrier Peak" (9,430 feet). First ascent and traverse, July 12th, 1954. Same party.
"Sugarplum Spire" (9,630 feet). First ascent, July 13th, 1954. Same party.

Western Bobbie Burns Group or Conrad Group

Mount Conrad (10,720 feet). Third ascent, July 27th, 1954. Virg Day, Richard Morden, Peter Robinson.
"Mount Thorington" East Peak (ca 10,000 feet). First ascent, July 28th, 1954. Same party.
"Mount MacCarthy" (10,070 feet). First ascent, July 31st, 1954. Same party.

Eastern Bobbie Burns Group or Vowell Group

"Osprey Peak" (9,680 feet). First ascent, July 29th, 1954. Same party.

Bugaboo Group

"Pigeon-Toe". First ascent, July 29th, 1954. Jim McCarthy, Dave Bernays.

Un-named peak (ca 9,150 feet). First ascent, August 5th, 1954. Richard Morden, Peter Robinson.

Ascents were also made of the following peaks:

Bugaboo Spire, Snowpatch Spire, Marmolata Peak, Crescent Spire, Brenta Spire, Eastpost Spire and an un-named peak of 9,550 feet. This party also compiled a list of estimated heights for the Northern Purcell peaks which raises most of the previously accepted estimates by about 200 feet. Until, however, an accurate triangula-tion has been carried out in this area to determine the vertical relief no useful purpose is served by publishing these figures,

Coast Range—Mount Waddington Area

The Stanford University Expedition

Tellot Spire—One-half mile west of Dragonback. First ascent, July 2nd, 1954. Gary Driggs, Bob Brooke, Dave Sowles.

Mt. McCormick. Same party, same day.

Mt. Dentiform (ca 10,500). July 2nd, 1954. Jack Maling, Gil Roberts.

Serra III (ca 11,000 feet). July 2nd, 1954. Andy Kauffman, Nick Clinch.

Serra I (ca 11,800 feet). New route by south-east face, July 13th, 1954. Roberts, Brooke, Maling, Clinch, Kauffman.

Claw Ridge. Traverse. July 13th, 1954. Sowles, Driggs.

Mt. Tiedemann (ca 12,800 feet). Second ascent, new route, July 15th, 1954. Whole party as above.

Serra IV (ca 12,000 feet). First ascent, July 25th, 1954. Kauffman,Clinch, Sowles.

Mt. Munday (ca 11,,000 feet). July 28th, 1954. Roberts, Brooke, Maling, Driggs.

Coast Range—Gilbert-Raleigh Group

Mount Raleigh, West Peak (ca 9,900 feet). First ascent, August 12th, 1954. Leon Blumer, Elfrida Pigou, Paddy Sherman.

Mount Gilbert (ca 10,200 feet). First ascent, August 13th, 1954. Blumer, Dr. Neal Carter, Alan Melville, Elfrida Pigou, Paddy Sherman, Dave and Jo Young.

"Cleaver Peak" (ca 9,500 feet). First ascent, August 13th, 1954. Blumer, Pigou, Sherman.

Un-named Peak (ca 9,000 feet). First ascent, August 15th, 1954. Carter, Melville, Dave and Jo Young.

—E. R. GIBSON.

SCIENTIFIC SECTION

ELLESMERE ISLAND 1954

By G. Hattersley-Smith[1]

Study of air photographs of the north coast of Ellesmere Island has shown that the ice is the main source of origin of ice islands—tabular bergs of an unusual type which have been reported in the Arctic Ocean and among the Canadian arctic islands.[2]

In 1953 a Canadian party made a reconnaissance of the region, a short account of which has already appeared.[3] The following is a summary of the scientific work of the 1954 expedition to the ice shelf off the coast of this highly mountainous and most northern part of Canada—a land where the mountains rise to more than 9,000 feet, lying as far north of Ottawa as the middle of Venezuela lies to the south. A full account of both expeditions is being published elsewhere.[4]

The 1954 expedition was sponsored by the Defence Research Board and the Geological Survey of Canada, the United States Air Force Cambridge Research Center, and by the Snow Ice and Permafrost Research Establishment of the Corps of Engineers, United States Army. One scientist from each of these organizations made up the party of four; they were respectively G. Hattersley-Smith, R. L. Christie, A. P. Crary, and E. W. Marshall. They were accompanied for the first two months of the season by two Greenland dog-drivers. The expedition was landed on the ice shelf towards the end of April near Ward Hunt Island by a C.47 aircraft of North East Air Command, USAF, from Thule Air Base, north Greenland.

A large amount of scientific data in various fields was collected by the expedition. Two 60-foot ice-cores from the shelf, geological specimens, and some biological specimens were brought back to Canada and the United States for detailed study.

The structure of the ice shelf was studied in detail; surface accumulation and wastage were measured in various places; and temperatures were taken at different depths to 70 feet throughout the summer.

For 50 miles along the seaward edge of the ice shelf between M'Clintock Bay and Markham Bay ocean soundings, temperatures and water samples were taken by means of a hand-winch at 19 stations. The depth of water beneath the ice shelf and the thickness of the ice were measured at 8 seismic stations over a wide area.

The geological reconnaissance of the north coast of Ellesmere Island started by Blackadar in 1953,[5] was extended from Cape Columbia to Lands Lokk on Nansen Sound.

From cairns along the coast the expedition recovered original records left by Aldrich (British Arctic Expedition, 1876), Peary (1906), MacMillan (Peary Arctic Club Expedition, 1909), Godfred Hansen (Third Thule Expedition, 1920), and Kruger (German Arctic Expedition, 1930). The German record unfortunately threw no light on the fate of Kruger and his two companions, none of whom returned.

At the end of September the party was flown out to Thule by the United States Air Force.

1 Arctic Section, Defence Research Board, Canada.

2 Koenig, L. S., et al. 1952. «Arctic Ice Islands», *Arctic*, Vol. 5, pp. 67-103. 1954.

3 Hattersley-Smith, G. "Ellesmere Island 1953". Can. Alpine J., Vol. 37, p. 118

4 Hattersley-Smith, G., et al. 1955. "Northern Ellesmere Island 1953 and 1954". *Arctic* (in press).

5 Blackadar, R. G. 1954. "Geological Reconnaissance on the north coast of Ellesmere Island, Arctic Archipelago, N.W.T." Geological Survey of Canada, Paper 53-10, 22 pp. (map).

Milne Bay. *Photo Courtesy R.C.A.F.*

This deep fjord on the north coast of Ellesmere Island is entirely filled by shelf ice; 9 April, 1951.

PERMAFROST AND ITS OCCURRENCE IN THE SOUTHERN COAST MOUNTAINS OF BRITISH COLUMBIA

By W. H. Mathews

Ground in which temperature remains below the freezing point throughout the year is described as 'permafrost'; where water is present this ground becomes firmly cemented by ice which persists summer and winter. Permafrost, or perennially frozen ground, is widespread in arctic and subarctic regions wherever snowfall is light and mean annual temperature is a few degrees below 32°F (Muller, 1947, Jenness, 1949, Black, 1954). It is less common in alpine regions because of heavy snowfall; here if the air temperature is sufficiently low throughout the year glaciers tend to form instead. Where glaciers have not developed, the blanket of winter snow restricts the freezing of the ground and thawing commonly takes place under the summer sun shortly after the snow disappears. One author (see Antevs, 1932, p. 35) suggests that for each inch of winter snow an additional 2.3°F drop in mean winter air temperature below 32°F is necessary for the development of permafrost. Permafrost is thus much less common, as well as less obvious, in our mountains than it is in the arctic regions.

The detection of permafrost, particularly in the stony ground of the mountains, is not easy, for only in fresh exposures such as on the floors of artificial excavations or in newly slumped stream cut-banks and landslide scars can ice-cemented ground be seen. Even a few days of warm sun will thaw the ground and disguise the remaining permafrost under many inches of muddy soil.

The distinction between perennially frozen ground and seasonally frozen ground is not easy to make in the field. Theoretically after a typical summer and autumn season only permanently frozen ground should persist. Permafrost exists below the level of summer thaw, whereas seasonally frozen ground extends only to the depth of annual freeze and thaw, which as a rule ranges between 1 and 10 feet depending on climate, the nature of the ground, its exposure, vegetation, and snow cover. The persistence of a layer of frozen ground several feet or more in depth at the end of summer may be accepted as evidence of permafrost.

This distinction between frozen ground and relics of glacial ice partly buried in moraine, is generally easy. Ground frozen in place keeps the essential character and arrangement of its constituent particles although the development of ice in the form of layers, veinlets, or wedges, may have led to some swelling and disturbance. Normally these ice masses are not more than a few feet thick, have clearly defined limits, and may cut across preexisting layering in the ground itself. Buried glacial ice, on the other hand, typically contains scattered rock fragments of all sizes with random arrangement. Although ill-defined bands of clean and dirty ice may be present, these are almost always distinguishable from any layering in the ground over which the glacier has ridden. Rock fragments in the ice, having been transported from a distant source, may be quite unlike the material in the ground beneath. Finally, relic masses of glacial ice tend to be irregular sheets or blocks many feet thick resting on, but not penetrating, the underlying ground and commonly overlain by morainal debris.

Any discovery of permanently frozen ground in the mountains is worth recording for with a better understanding of its distribution and character our knowledge will grow regarding its mode or origin, of the past conditions in which it is formed, and of the present climate in which it persists. Such a record should, as far as possible, provide all the information needed so that others may assess the local climate, make valid comparisons with other occurrences of permafrost, and if necessary reexamine the exposure at some later date. Thus, notes on an occurrence of permafrost

should, if practicable, include the following information:

1. Date of observation
2. Location—with reference to topographic features identified on published maps and supplemented by photographs of occurrence.
3. Altitude
4. Exposure—direction and angle of slope of the surface of the ground above the permafrost, and amount of shade.
5. Vegetation cover, if any—its character and extent, including especially the presence and thickness of moss or peat on or immediately beneath the ground surface.
6. Character of the ground—sand, cinder, moraine, rock, etc., with or without layering, dry or water saturated.
7. Any associated patterns on the soil surface—stone rings, nets, or stripes.
8. Depth of thaw at the time of observation and distance from any nearby snowbank or glacier which may have influenced thawing.
9. Character of the ice in the frozen ground—beds, lenses, wedges, veinlets, or coatings on pebbles; porous or solid; hard or soft; clear and glassy, cloudy, or dirty; white, grey or blue. Close-up photos may aid description if ice masses are clearly visible.
10. Depth of the exposure of frozen ground, or the total thickness of frozen ground if it is found to rest directly on unfrozen material.

Occurrences of permafrost at latitude 49° 58' north, longitude 123° 00' west, in the southern Coast Mountains of British Columbia near Garibaldi Lake are noteworthy. They are not only far to the south of any previously reported occurrence in the mountains of western Canada (Jenness, 1949)[1] but they are also in a region characterized by fairly mild temperatures and by rather heavy snowfall. Weather records were kept for an 11-month period in 1933-34 at a mountain cabin only 3 miles southwest of and 900 feet below the occurrences of permafrost. There an estimate of mean annual temperature for the 1930's was about 35° F; 900 feet higher it would have been close to 32° F. Snow accumulates to depths of about 15 to 20 feet in a typical winter, more than sufficient to insulate the ground from deep freezing. Oddly, too, the permafrost is in the porous cinder of a small volcano that erupted and grew cold some time during the ice age. The only known occurrences of permafrost within 'The Cinder Cone' lie in that part which was covered during the past few centuries by Helm Glacier and which was exposed by the retreat of the past two decades.

The most striking exposure of permafrost was found in a natural tunnel, 385 feet from end to end, in a cinder ridge immediately west of the west tongue of Helm Glacier (Figs. 1 and 2). The part of the ridge in which the tunnel occurs was buried by the ice until the late 1930's, and the ravine which intersects the southern part of the tunnel was occupied by meltwater from the glacier until 1942. After that the retreat of the glacier led to abandonment of the watercourse and the dry stream bed became a favoured route for the mountaineer. No doubt the tunnel was soon discovered for it was well known by 1944. In August, 1946, Jim Fyles and I made a survey of the tunnel and established that it extended completely through the cinder ridge, though at that time its northeastern portal was almost completely buried by talus and drifted snow. Although the southwestern end of the tunnel was dry, the walls in its central and northeastern part glistened in the light of a lamp and

1 Some maps show a belt of "sporadic permafrost" in the mountains of Western Canada and the Western States extending as far south as Colorado, but no specific localities are indicated and it is not clear whether the limits are based on actual observations or on theoretical considerations.

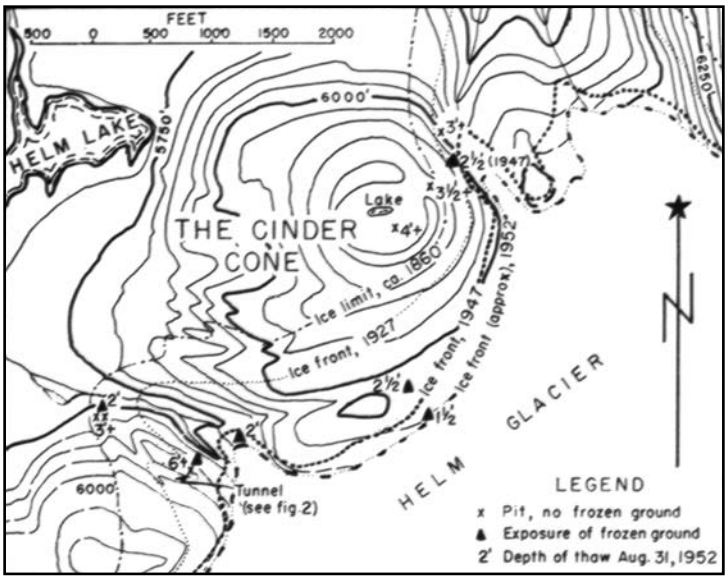


Figure 1:

Plan Of The Cinder Cone, Garibaldi Park, B.C.

Photo W. Mathews, Geological Notes

Showing occurrences of frozen ground.

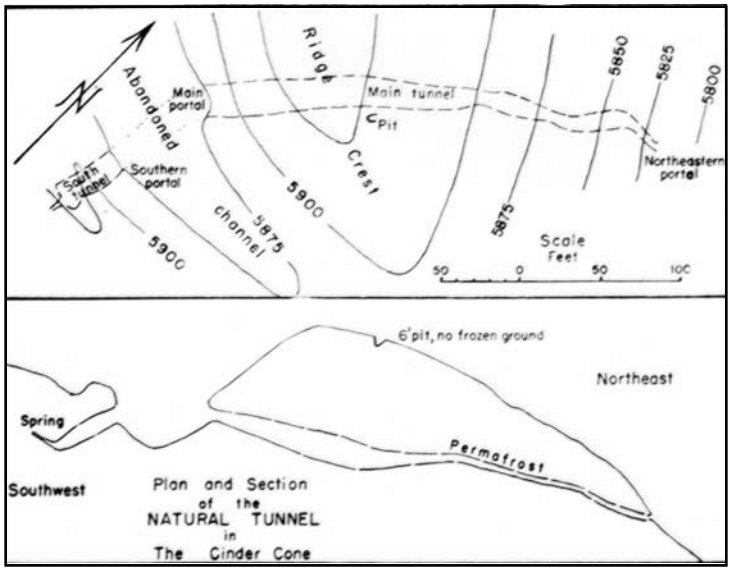


Figure 2:

Plan and Section Of Natural Tunnel In the Cinder Cone.

Photo W. Mathews, Geological Notes

a careful examination showed the cinder to be firmly cemented by clear, hard, glassy ice. Slabs and blocks fallen from the roof retained their shape in the central part of the tunnel, but in the warmer southwestern part, where sunlight penetrated in the afternoon, they had broken down to formless mounds of dry cinder. No significant air circulation was noted then or during later visits, and the plug of drifted snow at the north portal would prevent a draft throughout most of the year. In 1952 the tunnel had the same general shape as in 1946, but minor changes indicated the caving of roof and walls was still going on. Though the proportion of wall showing an icy cement had apparently diminished during the previous 6 years, frozen cinder was still obvious in the central part of the tunnel, 50 feet below the surface of the ridge.

The origin of the tunnel is not clear, but is probably related in some manner to the stream of water issuing from a small spring at the head of the blind southern extension of the tunnel. This stream disappears within a short distance under the fill of loose, thawed cinder on the tunnel floor but it may follow the course of the tunnel to the slope below the north portal, the nearest point at which the water could emerge. Snow and slide debris have, however, prevented discovery of any seepage below this portal. Possibly the flow of water has been sufficiently rapid at times to carry away some of the finer thawed cinder, thereby developing a tunnel which has become modified by the caving of its roof. Possibly, too, a decrease in volume as the frozen cinder thawed has facilitated development and enlargement of the tunnel.

A search, prompted by the discovery of the frozen cinder in the tunnel, was made on the barren surface of The Cinder Cone in 1946 and again in 1952, both times at the end of August. Pits 2 to 6 feet deep dug at several localities disclosed 3 occurrences of frozen ground. One of these, 1,000 feet northwest of the tunnel (fig. 1) was restricted to the vicinity of a dwindling snowbank and was judged to be only a relic of the previous winters' freezing. No such protective snowbank was present near two other pits and the claim that these revealed permafrost was stronger. The most convincing exposures, however, were those in the walls of two trenches being cut by meltwater from Helm Glacier. In one of these, near the end of the west tongue of Helm Glacier, cinder cemented by clear glassy ice was found only 2 feet below the top of the trench, thence downward about 2 feet to stream level. In the other, about 1,500 feet to the east, a stream flowing along the glacier margin had exposed frozen cinder and silt from a point 1½ feet below the top of the cutbank down to stream level, 5 feet lower. Not only was the cinder here cemented by ice but the fine silt contained many layers ⅛ inch thick, of clear ice paralleling the bedding, a few ice veinlets, about 1/16 inch thick, crossing the bedding, and one irregular ice lens 4 feet across and up to 9 inches thick. The stratification of cinder and silt at this locality plus the sharp distinction between this material and the rubble carried by the glacier shows that the ice here was not a relic of the adjacent glacier detached by thawing. The depth of frozen ground was so great that it would certainly survive without completely thawing during the few remaining weeks of warm weather and would persist through the following winter. Here undoubtedly was an exposure of perennially frozen ground.

Six of the pits dug in the search for permafrost failed to reach any frozen ground but provided a minimum figure on the depth of thaw. One, situated almost directly above the tunnel on an exposed east-facing slope, showed that a thawed condition extended to a depth of more than 6 feet below the surface, notwithstanding the frozen ground more than 50 feet below. Others, in somewhat more sheltered exposures, though all outside the area covered by Helm Glacier in the mid 30's showed that thawing extended to more than 3 or 4 feet below the surface. On the other hand the two pits and two stream cuts previously mentioned show frozen ground 1½ to 2½ feet below the surface; significantly all four lie close to Helm Glacier and were exposed by ice retreat

within the previous 6 to 8 years, and the minimum depth of thaw was found within 15 feet of the ice margin. These observations indicate that frozen ground has survived, if not developed, beneath the glacier, and that once exposed to present climatic conditions it thaws in time to progressively greater depths.

This observation that survival, if not development, of permafrost seems to be favored by a cover of glacial ice is not in accord with existing theory, based on temperatures prevailing in glaciers of mid-latitudes, nor with direct observations in Spitsbergen (see Antevs, 1932, p. 35). This conflict raises the need for more observations in the vicinity of other mountain glaciers. Are other occurrences of deeply and apparently perennially frozen ground to be found in the mountains of southwestern Canada? Will such occurrences be better developed in areas freshly deglaciated or in areas more remote from the glaciers? The answers to these questions will not come easily for in few places will there be tunnels and frozen cinder to focus the search in a specific locality. Chance excavations in the mountains may occasionally reveal permafrost, but in the morainal areas, freshly exposed by ice retreat, the observations of the mountaineer are most likely to provide the needed information. He should be encouraged to watch in his journeys to the glaciers for signs of frozen ground, to dig where necessary, and to record his findings; the mountaineer, more than anyone else, is in a position to add to our fund of knowledge on the distribution of permafrost in our mountains.

REFERENCES

Antevs, E. (1943): Alpine zone of Mount Washington Range; Merrill and Webber Company, Auburn, Maine.

Black, R. (1954): Permafrost: a review; Geological Society of America Bulletin, vol. 65, pp. 839-856.

Jenness. J. L. (1949): Permafrost in Canada; Arctic, vol. 2, pp. 13-27.

Muller, S. W. (1947): Permafrost or permanently frozen ground and related engineering problems; J. W. Edwards, Inc., Ann Arbor, Mich..

THE RECENT HISTORY OF THE COMMANDER GLACIER

A Preliminary Study

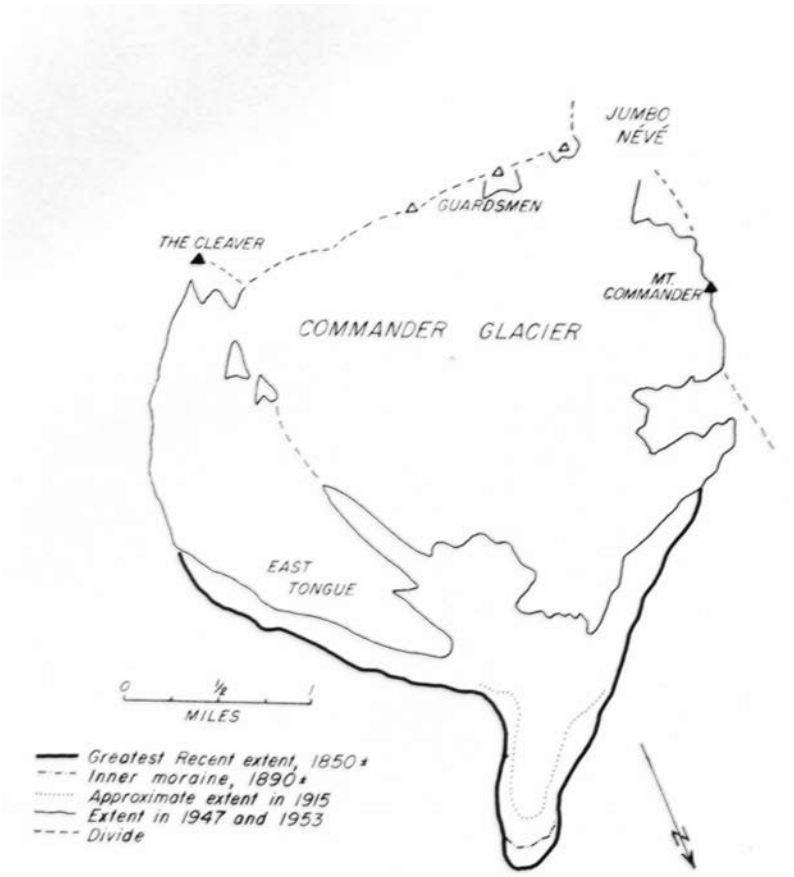
By Robert West

Several of the readily-accessible glaciers of the Rocky Mountains and of the Selkirks have been carefully studied in recent years. Most of the glaciers of the Purcell Range are more difficult of access, and perhaps for this reason they have received much less attention. A mountaineering trip during August 1954 afforded the opportunity for a preliminary study of the Commander Glacier, one of the larger glaciers in the central part of the range.

The Commander Glacier lies among some of the highest peaks of the Purcells, in the large cirque to the north and east of Mts. Commander, Jumbo, and Cleaver. The glacier was visited and photographed by mountaineering parties in 1915[1] and 1916[2], and was photographed from the air by the Royal Canadian Air Force in 1947 and again in 1953. Photographs from all of these

1 C.A.J. vii, 23.

2 C.A.J. viii, 47



Sketch Map Of The Commander Glacier,
Compiled From R.C.A.F. Aerial Photographs

sources were used in the present study. The melting of the glacier gives rise to a stream which is an important source of Farnham Creek, a northward-flowing tributary to Horsethief Creek, which in turn flows eastward and joins the Columbia near Wilmer, B.C.

Some ground moraine but no obvious recessional moraines were found in the valleys of Horsethief and Farnham Creeks. However, two prominent and nearly complete valley-ring recessional moraines exist in the valley immediately below the glacier, slightly more than a mile from the present ice-front. These recessional moraines provide a means of determining the extent of the glacier in earlier times. In order to reconstruct the history of the glacier it was necessary to establish the approximate date of formation of the two moraines.

Dating of Moraines

The outer of the two recessional moraines is approximately symmetrical in cross-section, has slopes of 30-50°, and rises about 30 feet above the valley floor. The moraine is covered in most places with a luxuriant growth of trees, including each of the four timber-line species of the region. The largest specimens of each species growing on the moraine were chopped down and dated by counting rings; the ages of these trees were as follows:

Picea Engelmannii (Engelmann spruce)—89, 85, 80, 76, 65.

Abies lasiocarpa (alpine fir)—69, 65, 63, 60.

Larix Lyallii (alpine larch)—56, 55, 50.

Pinus albicaulis (whitebark pine)—42, 39.

The first trees to become established on the moraine were all Engelmann spruce. The first trees to return to the more recently deglaciated areas closer to the ice were also observed to be spruce. The fir, Abies lasiocarpa, apparently does not begin to grow and survive until many years after the spruce is established. Very large specimens of both spruce and fir, several hundreds of years old, appear in the valley immediately below the outer recessional moraine. The oldest specimens of larch and whitebark pine found on the moraine were even younger than the fir, but the dates of establishment of these rarer trees may have depended on chance factors.

The oldest tree which we were able to find on the moraine was an 89-year-old spruce. If it is estimated that the first trees began growth about fifteen years after the ice receded from the moraine, the outer moraine must have been formed sometime about 1850.

The inner recessional moraine is smaller, rising only about 15 feet above the surrounding valley. The only large trees found on this moraine were Engelmann spruce, and the three largest of these were dated as 47, 45 and 41 years old. The dating of this moraine is considered more doubtful than that of the outer moraine, because parts of the inner recessional have been swept by avalanches which may have carried away still larger trees. However, the available evidence indicates that the moraine was formed about 1890.

The amount of recession of the glacier from the two moraines was measured, using a climbing rope which was later carefully measured with a steel tape. The distance between the two moraines in the centre of the valley is about 410 feet, and the present ice-front is an additional 5,770 + 50 feet from the inner recessional moraine. No conclusive evidence is available to indicate whether the two recessional moraines were formed by thrusting action of the glacier front during an advance of the ice, or by gradual deposition during a time when the glacier was in stationary equilibrium, but the very definite forest trim-lines observed at each moraine suggest that actual advance of the glacier took place when the moraines were formed.

Earlier Photographs and Descriptions

The position of the ice in 1915-1916 can be established fairly well from photographs taken on mountaineering trips to the Commander area in these years. [3], [4] The rate of recession prior to 1915 was comparatively small. By 1915 the glacier had retreated less than 600 feet from the inner (1890) recessional moraine. However, the entire lower part of the glacier appears to have been rapidly ablating. The snowline was higher in 1915 than in recent years.

Examination of the RCAF aerial photographs, taken in 1947 and 1953, indicates further that the rate of recession was greatest between 1915 and 1947. In this 32-year period the ice-front retreated 4,800 feet, or an average of 150 feet per year. However, recession apparently has ceased entirely between 1947 and 1953. Virtually no net recession took place during this six-year period. Furthermore, it is evident from the photographs that the glacier has thickened appreciably near the snout between 1947 and 1954. In 1954 we observed a thickened and active ice-front at the snout of the glacier, from which ice-blocks were occasionally cascading onto the rock below.

Past, Present and Future

The evidence collected to date, although very incomplete, allows a tentative history of the recent ice-movements to be written. The reader is cautioned that the following reconstruction of past events is highly speculative.

Our history starts with a period of glacial advance, culminating at about 1850 when the outer recessional moraine was formed. The glacier then went through a rather short and rapid cycle of retreat and advance, ending with a second, smaller maximum at about 1890. Following the construction of the second moraine, the ice again began to retreat, at first slowly, then after 1920 much more rapidly, perhaps many hundreds of feet in some years. When the ice in its retreat reached the long north ridge of the Cleaver, the glacier was divided into two parts by this rock spur. Then, probably sometime after 1940, the rate of recession began to decrease, and within the last few years the recession has practically or completely halted.

We can also speculate as to what the future may hold in store for this glacier, and perhaps also for Canadian ice-masses generally. Retreat of the Commander Glacier has virtually halted. Conceivably it could continue recession after a brief pause, or come to equilibrium in its present position, or it could even reverse the trend of the last sixty years and begin a new cycle of advance. Does the thickened snout represent only a wave of thickened ice, the result of heavy snow accumulation a number of years ago, just now reaching the end of the glaciers ? Or is the thickening an indication of incipient advance? Both 1953 and 1954 were years of heavy winter snow and little summer melting; will the extra snow accumulation of these two years be reflected in a genuine advance of the ice?

It is hoped that a more definite answer to these and other questions may be given after a second visit to the Commander Glacier for a more intensive study of the area. Tentatively we are planning such an expedition for the summer of 1957 or 1958, to coincide with the International Geophysical Year.

I am greatly indebted to the members of the Harvard Mountaineering Club 1954 Purcell Range expedition for assistance in carrying out the field studies reported here.

3 J. M. Thorington, *The Purcell Range of British Columbia,* Am. Alpine Club New York, 1946, pp. 55-66.

4 The area was also visited by climbing parties in 1922 and again in 1928. Pictures from the 1928 trip, an ACC summer camp, would be especially valuable for comparison, but to date none has been found.

ZOOLOGY AND CLIMBING

By Ferris Neave

Few climbers, I hope, are completely and sternly single-minded in their pursuit of summits and records. All, I believe, feel some degree of curiosity or sentimental interest in the living creatures which they find occupying the chosen territory of their pleasures and exploits.

There is scope for a vast amount of investigation into the distribution of alpine animals, their physiology and the adjustments and balances between them and their environment. It would perhaps be the normal theme of a short article to emphasize the desire of the scientist for kinds of information which the mountaineer can provide by undertaking certain work. My own hedonistic and (from a professional standpoint) treasonable view is that the mountaineer should aim to satisfy himself rather than the scientist and that the ultimate value of data gathered with reluctance and transmitted from an obscure sense of duty is at least a matter of doubt. The opposite idea, that by helping himself to a few random specimens and transferring them to a long-haired specialist he can painlessly secure for himself a niche in the halls of scientific achievement, is equally illusory. Not that I think for a moment that mountaineers are prone to fall into these errors.

The factors which tend to confine human populations to low altitudes have similar effects on many other animals. Low temperatures, limited food supplies and scarcity of shelter are hard facts to overcome. The number of species declines rapidly with increasing altitude. Some, however, can be found nearly to the limits of human exploration.

Most mountaineers have at least a little knowledge of some of these creatures and are pleased when they can recognize one by name. Some of us find that by extending the scope of such familiarity and by understanding some of the problems faced by alpine animals one's sense of "belonging" to the high country is increased, whether or not the observations or specimens acquired during a climb can be exalted as scientific "discoveries".

The process of increasing one's own knowledge and at the same time adding to the general pool of scientific information usually involves (a) accurate identification (made possible by experience, by guidebooks and by the help of experienced companions); (b) written records of observations such as place, date, altitude, number of individuals seen and their behaviour. New encounters with old friends gain in interest when the circumstances of each meeting can be compared.

In the case of birds and mammals the climber (while operating as such) will usually confine himself to observation. The other animals which may be found in alpine territory range from worms and snails to amphibians and reptiles. The dominant forms, however, are insects. (Incidentally, it may be noted that not all the insects encountered at high altitudes are true "natives". Many winged forms are carried upward by air currents and may be found in varying stages of numbness on snow surfaces thousands of feet above their preferred habitats).

The geographical distribution of many small invertebrates is known very imperfectly and their altitudinal range and life histories have been still less explored. Usually, specimens must be brought back for precise identification and record. For this purpose a few vials, tubes or small boxes must be added to pockets which are probably full already. Plastic is lighter and less breakable than glass. Screw caps are pleasantly reliable substitutes for corks which pop or loosen. But the main thing is to have *some* sort of receptacle which can be produced, opened and closed without adding unduly to the agitation caused by the sighting of prey. Most small, soft-bodied animals, including many insects, can best be handled by putting them directly into tubes of 70% to 90%

alcohol (preferably non-methylated). Large, hairy or brightly-coloured insects such as bees, wasps, butterflies or grasshoppers get a dry treatment, which involves bumping them off in a "killing bottle" (containing potassium cyanide or other lethal agent), with subsequent impalement on an insect pin. The killing bottle is best used on the spot. Pinning, labelling and storing can be done after return to camp. In the capture of active specimens agility, dexterity and improvisation can frequently be substituted for special equipment. For particularly mobile or well-concealed forms, however, there is no denying that a net will raise one's batting average considerably. It need not be of the proportions beloved by cartoonists. Even a net with a diameter of 4 inches and handle only long enough to be grasped by a determined fist can be used effectively both in air and in water.

Although the equipment required for collecting and preserving many kinds of small creatures can be kept light and portable, it is also true that the same techniques and treatments cannot be applied to all groups of animals. Few climbers, while engaged primarily in climbing, will wish to carry the means for dealing adequately with all the species which they may encounter—or even all the species of insects alone. Furthermore, haphazard collections of divers unfamiliar creatures are not particularly stimulating either to the amateur collector or to the specialist who may ultimately receive them. The collector who finds his hard-won bugs languishing indefinitely without name or comment in some institution allegedly dedicated to the cause of zoology is apt to be irritated or discouraged. On the other hand, taxonomists are usually busy people and few are competent to deal precisely with more than a small proportion of the myriads of groups and species which constitute the animal kingdom The specialist who will plead for offerings of fleas or snails will be less than thrilled at being required to spend his time sorting out miscellaneous collections of beetles, flies and worms, about most of which he may be lamentably ignorant as regards the finer points of identification.

By acquiring a working knowledge of the taxonomy of a particular group or groups collections can be made with much greater discrimination and percipience and the pleasure of discovery can be enjoyed in some measure on the spot. In practice it is probably impossible to maintain for long an enthusiasm for merely collecting specimens and transferring them to someone else, without any personal appreciation of their identity or significance. Consultation with individuals of known zoological interests and attainments will help a great deal in deciding what to collect and how specimens should be handled and preserved. It will also help to produce more rapid and accurate identification of the material which is brought back.

In addition to securing personal help and advice, the interested student of alpine zoology will need to become familiar with the existing literature on the subject. Here again, it is difficult to make helpful suggestions until the investigator narrows his field to a particular group or groups. General treatises on alpine fauna are conspicuous by their absence and existing information (far from plentiful) is scattered through a wide variety of publications, some of them of a specialized nature. A general introduction to the subject is provided by Allee and Schmidt (1951) and the reader will be struck by the scarcity of their references to North American sources. Communion with the long series of volumes of *Ecology,* the leading American journal devoted to studies of plants and animals in relation to their environment, will confirm the view that alpine animal populations have been generally neglected. Certain definitions and ecological characteristics of North American mountain zones and areas are given by Shelford (1926) and for British Columbia by Munro and Cowan (1947). Back numbers of the *Canadian Alpine Journal* contain a few articles on the mammals and birds of particular areas. Other references must often be extracted from publications devoted to special interests, for example entomological and conchological journals.

From a scientific viewpoint there would be great merit in the armchair occupation of bringing together the scattered bits of published information relating to our alpine and sub-alpine animals.

Such compilations would certainly disclose wide untouched fields available for new investigation. Some climbers are already drawn to these fields in varying degrees. Others prefer to accept Nature without further scrutiny. To the rest I can offer the superfluous advice: Do what adds most to your pleasure.

REFERENCES

Allee, W. C. and Karl P. Schmidt (1951): *Ecological Animal Geography,* 2nd ed., New York. John Wiley and Sons, Inc.

Munro, J. A. and I. McT. Cowan (1947): *A Review of the Bird Fauna of British Columbia.,* B.C. Provincial Museum, Victoria, B.C.

Shelford, V. E., editor, (1926) : *Naturalist's Guide to the Americas.* Baltimore. The Williams and Wilkins Co.

CLUB PROCEEDINGS

SKI CAMP AT SKOKI

By William McLaren

Take one "retired reconteur", two T.C.A. hostesses, three housewives, four engineers (various), five M.D.'s, six clerks, two nurses, an artist, a draughtsman, a lady of leisure, a manufacturer, a life insurance agent, a banker, a horse pathologist, and to these add the one (and only) Phyl Munday, and you have the ideal mixture for which Skoki on this occasion provided the crucible. The dispenser in this instance was a corpulent cook of extreme competence, Ted Lee. His offerings were always a silent testimony, as was his midriff, to that great truism that the way to a skier's heart is through his stomach.

Reached from Lake Louise station by jeep for 5 miles, to Mt. Temple Chalet, and by ski for 7 miles over Boulder and Deception passes, Skoki Lodge nestled beneath a piecrust of snow at 7,000 feet. It was situated, with its four satellite cabins, in a pleasant clearing among the evergreens. As the bodies came stumbling in through the inhospitable weather on that first day, there were rumours of some army officer issuing orders up on Deception Pass. Certainly the pack train was at work as each benumbed body proudly, and thankfully, bore its ten pounds of meat to the kitchen. Colin McAllister and Johnny Dodds of Calgary were the masters of logistics, both making at least two trips in from Temple. The latter completed his last trip in darkness carrying a crate of eggs and detouring via Packers Pass by way of Mid-night Diversion, a feat recognized one evening when the camp commandant, Major Rex Gibson, presented him with the be-ribboned order of the "Hard Boiled (Good) Egg."

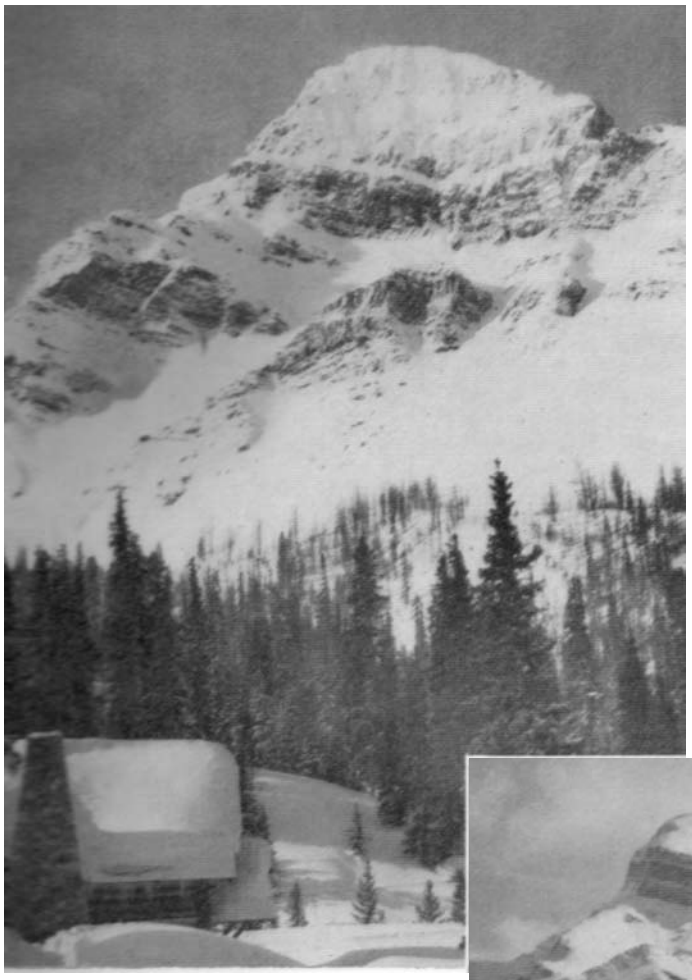
By the second day twenty of our now well-knit band, moved down a sparkling valley into a deep canyon, and off across a frozen lake. We circuited an ice fall winding up through trees, and then strung out into groups to suit all tastes for speed, we gradually ascended the long Skoki Valley to Merlin Ridge (9,300 feet). Here at last we looked across the Bow Valley and listened while Rex Gibson took the roll call of his many ascents, now engaged in serried ranks before him: Hector, Waputik, Bosworth, Paget, Mt. Field, Mt. Stephen, Cathedral Crags, Mt. Victoria, Biddle and Temple, a fine achievement.

Two hours later, weary after this exhilarating ten-mile expedition we consumed quarts of tea, back safely in our happy refuge.

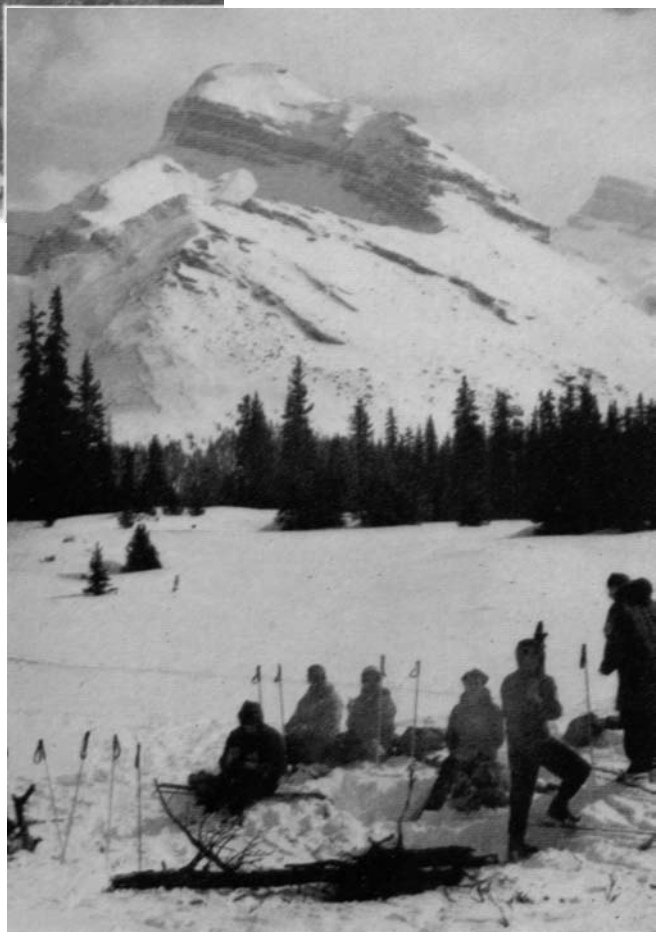
Next day small parties departed to explore widely separated areas. The moraine of Ptarmigan Glacier was the goal of Joe Kato's group, and glorious foot-deep powder snow kept demanding just one more run. Others journeyed to the south shoulder of Fossil. All enjoyed a breathless sparkling afternoon.

The mountains which lay around Skoki were not, alas, for the taking. Snow conditions were such that access was limited to glacier routes. So, while Mark Mitchell and Rex Gibson led a reconnaissance down the Red Deer Valley to survey the Douglas and Drummond Glaciers, Johnny Dodds took a six-man assault team up Ptarmigan (10,070 feet).

Our route on the moraine passed the massive chunk of blue ice fall. Above was the basin of which the glacier formed the floor. Here the air was curiously warmer and the snow heavier. Soon this was crossed and we struck up the last 1,500 feet of glacier, detouring patches of wind-blown ice. Again the vista was a feast of beauty. North-east in the Red Deer Valley we could just see the



Skoki Lodge In The Shadow Of Pika Peak.
Photo Mrs. Don Munday



Lunch In The Red Deer Valley.
Photo Mrs. Don Munday

other party which, ant-like, scarcely seemed to move at a distance of four miles. North-west was Mt. Hector (11,135 feet) and below, a third party bound for Merlin Ridge. The run down was a joy, steep but easy powder, and a soft bed for tired bodies. A few "eggbeaters" were made in the last schuss onto the frozen lake.

The remaining few days were a great disappointment to us all as far as the weather was concerned. The sky was overcast, snow fell, at times backed by a powerful wind. Our expeditions to Douglas and Drummond were daily cancelled. However, we were always busy around the camp, up on Skoki, across on the practice slope, resting, reading, eating, and following the progress of our camp boy, Willie, with paternal pleasure. A few of us found a fine piste on the south-west shoulder of Skoki which came to be known as "Bill's Thrill" or "Bill's Folly", depending upon the virtuosity on mediocrity with which their planks were manipulated by those descending.

Work duties which were assigned by Phyl Munday, who selflessly appeared more often than her name did on the list, were relatively light, consisting of serving at first or second sitting, and then washing the crumbless gravy-free platters. Evidently they were too much for a lad from Yorkshire.

A fellow called Noel, let's face facts,
About kitchen boy duties was Lax,
E. breezed in at nine,
Without look of repine
An' said "Ee, ah could eat 'alf a doozen flap jacks.

Rex Gibson conducted a Dominion-wide council, one evening, when the representatives from far and near stood and declaimed for their sections: Jean Hewitt for Calgary; Don Link and Jo Kato for Edmonton; Doug Urquhart for Montreal; "Dotch" Peck for Ottawa; Phyl Munday, Elizabeth Brook and Margaret McKenzie for Vancouver, and Rex Gibson for Victoria. Bill McLaren from Kamloops, put in a word of appreciation from the visitors. Now came a sing-song with tunes Edwardian and words known only to a few vintage members such as ... (here decorum forbids further enlargement).

Fun and games another evening had as a highlight "Hoopla with coat hanger," as devised by Johnny Dodds and Jo Kato. Several sylph-like forms slid easily through an ordinary wire coat hanger, till Noel Lax got it down as far as his corduroy pants. He then retired to the outer world of 30° below and shortly threw open the door, tossed in the hanger, now quite circular, and waved his pants defiantly at the ring leaders, but the "piece de resistance" was Bob Scholes. We thought he'd met his Waterloo as he pranced in long-johns before the fire, wrestling with the infernal loop.

As these evenings passed, many tales were told of many places. The songs were sung, monologues recited, and friendships were made, which along with the memories, are all that now remain— but what a treasure trove—of Skoki Ski Camp, 1954.

SKOKI STANZAS

There was a middle-aged man of Skoki
Who claimed that he'd skied down a tree;
In his trousers no rent,
Nor were ski poles bent,
"A schuss-bark by Clark," quoth he !

There was a young banker called Fish
Who never rejected a dish;
Through his animate face,
At a fantastic pace,
He'd pass more grub than a pack horse could wish!

An attractive young lady called Peggy,
Has ski pants now turned somewhat baggy;
But she's not disconsolate,
For she's found her a mate,
And left him holding the baby.

An unshaven M.D., McGouga,
Was chased up a tree by a cougar ;
When the cat saw his face
He set off apace,
Soon the cougar was treed by McGouga.
(Poetic license granted by Justice Skoki Gibson).

There is a young lady called Jan,
Whose face at bridge turns quite dead-pan;
As she plays out her aces,
And her partner grimaces,
She knows to expect a harangue.

A fellow called Noel, let's face facts,
About kitchen boy duties was lax;
He breezed in at nine,
Without look of repine,
An' said "Ee, Ah could eat 'alf a doozen flap jacks!"

A guy called Johnny's in cahoots
With a pair of seven league boots.
He skied down the Packers,
With a huge crate of crackers,
And gave neither one nor two hoots.

An artist, Ted Goodall relents,
His facilely modest comments;
He took quite a huff
When his "Oh a little bit rough,"
Received very general assents.

A sleek-haired M.D. called Bill Black
Spent most of ski camp on his back;
With a book on his navel,
And his feet on the table,
He spared brains and brawn any rack.

A diminutive lady called Dot(ch)
At Ski Camp was put on the spot(ch) ;
To speak for her section,
She'd claim no election
But carried it off without blot.

A retired raconteur called Rex Gibson,
Or on this occasion, his "nibs-son";
Down Deception was coasting, when there on the trail,
Four weary skiers, he let out a wail,
"Track ! Track ! Etiquette ! Donner and Blitzen !

BILL MCLAREN (1954).

GOODSIRS CAMP

BY S. VATCHER

Three experiences stand out in my memory, no two of them related, but each of which is tucked away to remember with delight through long winter evenings.

The first is that evening in New York when we waited for a review of "One Awful Night" which one bright reporter summed up in the word: "Exactly". The second was my falling through Arctic ice on the way to help rescue a German flying party forced down in the wild wastes of the Northland. The third, was our first night at the Ice River Valley "Goodsirs" Camp.

Eric and Emmie Brooks had gone in at the earliest possible moment and the valley had barely time to dispel winter's snows when the first arrivals wound up behind the pack horses groaning under the weight of "comforts" remembered by those whose experience of Alpine Camps was not so far removed as ours.

Four tons of equipment had preceded us and after our trek up the valley, our first thought was of the welcoming friendliness of the cook tent. Within its walls, right through the season, it was difficult to imagine that we had not the services of a modern groceteria instead of being twenty-four miles from civilization. We lingered long in this friendly atmosphere without counting on the inevitability of twilight and the heavy clews of evening.

The rush to settle camp for the night and the resulting calamities of that evening minus one sleeping bag, and Li-Lo's that would not stay up, will make for extravagant dinner conversation long after we have run out of more pleasurable experiences.

We saw the grim dawn next morning through sleepless eyes and greeted the ridiculousness of the sleeping garb—we had put on everything within reach—with gales of laughter. It was not until we were well up the slopes of Mount Ennis that the sun came out and we looked down on the peaceful valley with the campsight bathed in sunlight that we knew "home" for the next two weeks would be a pleasant place indeed.

We were not disappointed. On the climb we renewed acquaintances with Bob Hind and George Hampson, caught the spirit of the hills, basked in the loveliness of the surrounding grandeur and then hurried down to make ourselves truly "at home".

A canvas floor was provided, tables were built, wash stands erected, to say nothing of the friendly fireside that blazed near the rushing stream and threw its warmth right to the door of the tent. That evening we lingered longer over dinner and enjoyed conversation far into the twilight.

Neighbourliness was a "hallmark" of this camp. Its friendly folk came from points so distant on the map that a truly international aspect was apparent in all our comings and goings. The fireside told stories of China and the Far East, of Africa and the Gold Coast, of Europe and its displaced peoples, of England, Switzerland, Mexico, America and many of our own provinces.

A veritable buzz of conversation followed each introduction assuring us that no one wanted to miss the variety of names that linked the individual with the country concerned.

Eager participation was readily secured for the recreational activities and "climbs" were at a premium. Each evening a long line of hopefuls scanned the lists and were not deterred by thoughts of a 4 o'clock rise. That was an experience I hope everyone shared. To see the sun go down trailing clouds of glory, and to have it stay tantalizingly hidden while you battled with the cold and the damp, only to be reassured of our "luck" by the expert attentions in the dining room and the promise of fine weather, was a conditioner none should have missed. No amount of ready-made pleasures, no intensity of external excitement could ever compensate for the loss of one such experience.

Judging by the constant stream of early risers and the demand for places on the ropes it was a "climbing" camp—peak after peak was scratched off by graduating members and old-timers alike. The popularity of the rock and ice schools, the long climbs to the base camp and to the alpine meadows for flowers, the snow grinds and the mountain-top experiences of those who made such peaks as Martins, Vaux, Chancellor and the Goodsirs stirred the imagination. When one recalls that most of this was accomplished by volunteer guides, we can be proud of what this camp does in affording an opportunity to express courtesy and consideration for others; to make people feel at home and comfortable; to create an awareness of what is just and fair in observing the rules of sport.

We will long remember:

The Sunday worship services and Frank Gaebelein.

The president's message, Rex Gibson with his words of advice and Captain MacCarthy with his fireside chats. The founder of the Greek Alpine Club, Marge, and the ambassador from Israel to Canada.

The tea tent and its invaluable services in affording relaxation and a sense of peace.

The neighbours who shared our fireside and sipped our rye.

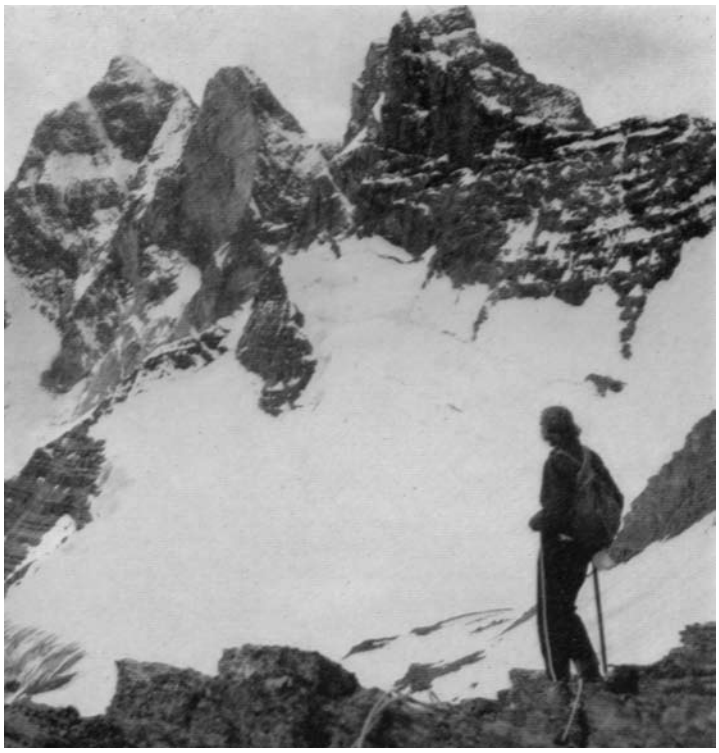
The one and only Phyl Munday with her language of flowers and hospital ministrations.

The attentions of Mr. Wilson and the hard-working staff.

The inimitable styling of Fred Parkes and the many who filled the twilight hours with song and laughter and chat.

The evening shadows and the flickering fireside with the tall, tall peaks standing sentinel against the deeping gloom . . .and

The delightful spirit of happiness and spontaneity which put the magnet in our heart and the compass in our head for 1955



The Goodsirs From Martin's Peak.
Photo Rex Gibson

South Tower on left. Kay McCormick in foreground.

FIRST ASCENT OF AQUILLA PEAK

By Eric Plumpton

An unclimbed peak within reach of base camp is an irresistible lure to any mountaineer, but especially so to climbers from the Old Country where first ascents have long since been a thing of the past.

Aquilla Peak (approx. 9,100 feet) is one of the major peaks of the Chancellor Ridge which stretches the length of the Ice River Valley and Miles Rucklidge and I made this peak our goal on Aug. 2, 1954.

We made the usual 5 a.m. start and followed the well-worn path down the valley and the now unmistakable route to the summit of Garnet Peak which we reached at 7:20. Here we had a second breakfast. We then followed the broad ridge up from Garnet Peak to its junction with the main Chancellor Ridge. This was easy going though the rock was very loose and several rotten gendarmes were turned on the south side. To reach the main ridge a 15-ft. snow cornice had to be climbed and for this we roped up.

We then set off (10:30 a.m.) southwards along the ridge, towards the summit of Aquilla. Two minor bumps in the ridge had to be crossed first, but there was no great difficulty, though the rock was still very loose and in general the holds sloped the wrong way. The angle on the west face of the ridge was around 35°, but on the east face it was much steeper and overhanging in many places so that most of the time the climbing was exposed. The summit was reached at 12:30 p.m. and after lunch we continued south hoping to cross the two further minor peaks before descending to the valley. We crossed the first of these, but on its south side the ridge became much steeper, falling away in very loose outward-sloping ledges.

We climbed down with some difficulty to the col on the far side, which we reached at 3:30 p.m. In view of the time, we decided to descend the west face from there. The difficulties continued, and we had to move singly all the time, down a series of steep snow slopes, gullies and rock ledges. We left the col at 4 p.m. and eventually reached easy ground at 8 p.m., but we were still 2,500 feet above the valley floor. We then bushwacked down the next spur south from Garnet Peak, and reached level ground just as it was getting dark. After crossing the river by the Garnet Peak path we reached camp at 10 p.m.

FIRST ASCENT OF MOUNT ALLAN

By Joan Schultz

Mount Allan is the semi-cirque of rock which juts out of the Vaux Glacier like a jagged, decaying molar. Together with Hanbury Peak it is said to have been named after a brand of blackcurrant pastilles which were presumably chewed during the original exploration of the area, and until the 1954 Ice River Valley Camp no one had bothered to climb it. Although shown as a 10,000-footer it appeared to be considerably lower from all viewpoints, including the summits, and Walter Perren, the Swiss guide who led the climb, estimated its height as around 9,300 feet.

It was listed as a graduating climb for July 29 and three undergraduates fancied the added thrill of a first ascent. At least one of those three went to bed with a feeling not unlike that which preceded school examinations in days gone by!

The mossy tramp through the quiet, dewy woods with the birds' clear notes to speed us

on our way was pure delight. Then leaving the forest and meadows we followed the rocky stream bed and scrambled at a very steady pace to the edge of the Vaux Glacier—just two hours out from camp. From here the mountain looked deceptively close and easy. "Is that all it is?" someone asked. "I suppose so, there doesn't seem to be anything else," said our leader. We undergraduates felt smug—we'd sure picked a winner—why, we'd be back for tea, if not before!

We roped up—Walter Perren, Heather Stewart, Margaret Kirk and Mary Jury followed by Eric Plumpton, myself and Bill Angus and set off across the glacier. The mountain moved back steadily as we advanced, and it was not until almost two hours later that it began to loom large above us. We joined the south-east ridge at a point where it reaches almost down to the snow and followed it. At first it was broad and easy, later much narrower, more exposed and extremely rotten, and we reached the east summit at 11:30 a.m. Here we lunched under a cloudless sky, feasted our eyes on the magnificent panorama and buried a juice can record for posterity. "Is this the higher of the two peaks, Walter?" "Well, I think maybe the other one is a little foot higher—I will see if it will go," he replied, and goat-like, disappeared over the top, soon to reappear with marching orders. Who said anything about tea in camp anyway?

We followed the ridge north-west to the west summit and met with considerably more difficult climbing. In places both sides fell steeply away leaving razor edges to be crossed a cheval. The mountain was positively disintegrating and stones and slabs hurtled down either side as we gardened for handholds on rock that cut hands and raiment to ribbons. The last pitch to the top of the west summit was particularly steep and I was reminded of a marionetteer as our leader deftly manipulated all our ropes over this pitch and landed us safely on top. Here we repeated the juice-tin-and-cairn ceremony and speculated upon the relative heights of the two peaks without coming to any conclusion. It was now 2:30 p.m.

Again we followed the ridge, descending a steep and interesting open chimney and finally turning south on to scree which led down to the glacier. This we reached at 4:30 p.m. and snow underfoot never felt so good!

We galloped over it, followed by a threatening cloud and unroped at the top of the rocks. After this we slithered and ran back to camp at breakneck speed and arrived in time for supper at 6 p.m., well and truly graduated.

Walter Perren is said to have described it as the best climb in the region.

MT. CHANCELLOR

By Denys C. Lloyd

By five a.m., after a hearty early breakfast, Walter Perren led off with Greg McGibbon, George Camm and myself. We passed through the soggy meadows across Ice River, up through the evergreens and slide alder, detoured the waterfall, clambered up some rock and arrived on the snow leading to the steep snow slope which we climbed to the top of the spur —about 9500 feet. Here we had something to eat, and those who had nailed boots changed to rubber soled boots, and we roped up. Packs and ice axes were left behind.

A little after eight-thirty we reached the narrow rock ridge leading to the summit. On one side there was a drop of about 4000 feet to camp, and even a longer one on the other side down to the Kicking Horse River. It is a most impressive ridge. About half way along we came to a vertical ten-foot drop, where yesterday's party had kindly left a fixed rope. From here on it was a steady uphill climb with most of the hand holds sloping the wrong way. Walter tied the three of

us together and took us up with a series of belays, with all three climbing as a group. By 10:20 we were on the summit in the warm sun, with a clear view in all directions except for a small patch of cloud on the east side of the peak.

A delightful forty minutes was spent on the summit, lunching and photographing.

The return trip along the ridge went well, reaching our packs and ice axes in good time. From here we had a beautiful glissade, roped, all the way down the long snow slope, and were back in camp about three p.m., feeling very pleased with a good climb.

MT. GOODSIR (SOUTH TOWER)

We regret that at the time of going to press no personal accounts of the climbs of Goodsir have come in. The mountain was climbed twice during camp. Other attempts were made but owing to severe thunderstorms and bad weather the parties were turned back. A. C. Fabergé and R. A. Schluter made one ascent and a party of four led by Walter Perren made the other.

THE ALPINE CLUB OF CANADA BLACK AND WHITE PHOTOGRAPHIC COMPETITION—1954

Total Number of Entries—49

WIEBRECHT CUP—(for the best black and white photograph in all classes):
"Summit of Hooker"—Ed C. Porter, Chicago.

CLASS A—(MOUNTAIN SCENE)
1. "Mt. Robson"—Phyl Munday, North Vancouver, B.C.
2. "Mt. Robson"—Barb. Richardson, Calgary, Alta.
Hon. Mention—"Mt. Douglas"—Phyl Munday, North Vancouver.
"Bugaboo Glacier"—B. Falser, Chicago.
"Mt. Pinnacle"-—B. Richardson, Calgary.

CLASS B—(MOUNTAIN FEATURE)
1. "Summit of Hooker"—Ed. C. Porter, Chicago.
2. "Icefall, Scott Glacier"—Phyl Munday, North Vancouver.
3. "The Judge"—Mrs. C. A. Richardson, Calgary.
Hon. Mention—"Bugaboo Creek Falls"—B. Falser, Chicago.

CLASS C—(CLIMBING)
Hon. Mention — "Icy Highway" — Elfrida Pigou, North Vancouver.
"A Handy Ledge"—Rex Gibson.

CLASS D—(MOUNTAIN SKIING)
Hon. Mention—"Winter Wonderland"—Phyl Munday, North Vancouver.

CLASS E—(NOVICE CLASS, MOUNTAIN LANDSCAPE)
I. "Mushrooms"—"Robson River"—Barb Richardson, Calgary.
Hon. Mention—"Avalanche"—Bruce Fraser, Calgary.
"President's Cornice"—Isabelle Spreat, Calgary.

CLASS F—(ALPINE NATURAL HISTORY)
Div. I —I. "Fungi"—Phyl Munday, North Vancouver.
Div. II—I. "Obedient Baby"—Phyl Munday, North Vancouver.

CLASS G—(ALPINE ASSOCIATION)
Hon. Mention—"Winter Sunshine, Mt. Seymour"—Phyl Munday.

WATES SHIELD—CALGARY SECTION

Summit Of Mt. Hooker.
Winner, Wiebrecht Cup. Photo E.C. Porter

COLOUR SLIDE COMPETITION

Number of contestants—10. Total number of slides—90.

HUDSON CUP—(Best colour slide in all classes) :

"Clouds Over Pigeon Spire"—Barbara F. Palser, Chicago.

CLASS A—(MOUNTAIN SCENE)

1. "Clouds Over Pigeon Spire"—Barbara F. Palser, Chicago.
2. "Alpine Glow—Opabin Pass"—Georgina Fitzgerald, Chicago.
3. "View from Odaray"—Georgina Fitzgerald, Chicago.

Hon Mention-"Morning Light, Mt. Assiniboine"-P.D. Guilbride, Chemainus, B.C.

CLASS B—(MOUNTAIN FEATURE)

1. "Snow Sculpture"—Phyl Munday, North Vancouver.
2. "Snow Birds"—Mary M. Fallis, Vancouver.
3. "Scott Icefall"—Rex Gibson, Saanichton, B.C.

Hon. Mention—"Blue Grotto"—J. L. Dudra, Vancouver.

«Alpine Glow on Mt. Rundle»—Mary M. Fallis, Vancouver.

CLASS C—(CLIMBING)

1. "Descent Into the Mist (Camel's Head)"—Elfrida Pigou, North Vancouver.

CLASS D—(MOUNTAIN SKIING)

1. "Winter Wonderland"—Phyl Munday, North Vancouver.

Hon. Mention—"Robson Glacier"—P. D. Guilbride, Chemainus, B.C.

CLASS E—(NOVICE CLASS: MOUNTAIN LANDSCAPE)

1. "Mount Serenity"—Lucy E. Smith, Hollyburn, B.C.

CLASS F—(ALPINE NATURAL HISTORY)

Div. 1. (Wild Life—Birds and Animals)

I. "Pika on a Plate"—Elfrida Pigou, North Vancouver.

Hon. Mention— "Summer Shades, the Athabaska Trail"—Mary M. Fallis, Vancouver.

Div. 2 (Still Life—Flowers, Trees, etc.)

Hon. Mention—"Sedumond Slate"—Barbara F. Palser, Chicago.

"Milkweed Seed"—Phyl Munday, North Vancouver.

CLASS G—(ALPINE ASSOCIATION)

1. "Storm Along the Whirlpool"—Mary M. Fallis, Vancouver.
2. "Silver in November"—Mary M. Fallis, Vancouver.