

The
Canadian
Alpine
Journal

PUBLISHED BY
THE ALPINE CLUB OF CANADA

1928

HEADQUARTERS
BANFF, ALBERTA

VOLUME XVII

THE
CANADIAN
ALPINE JOURNAL

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THE ALPINE CLUB OF CANADA
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Printed By The Gazette Printing Co. Ltd., Montreal

CANADIAN ALPINE JOURNAL

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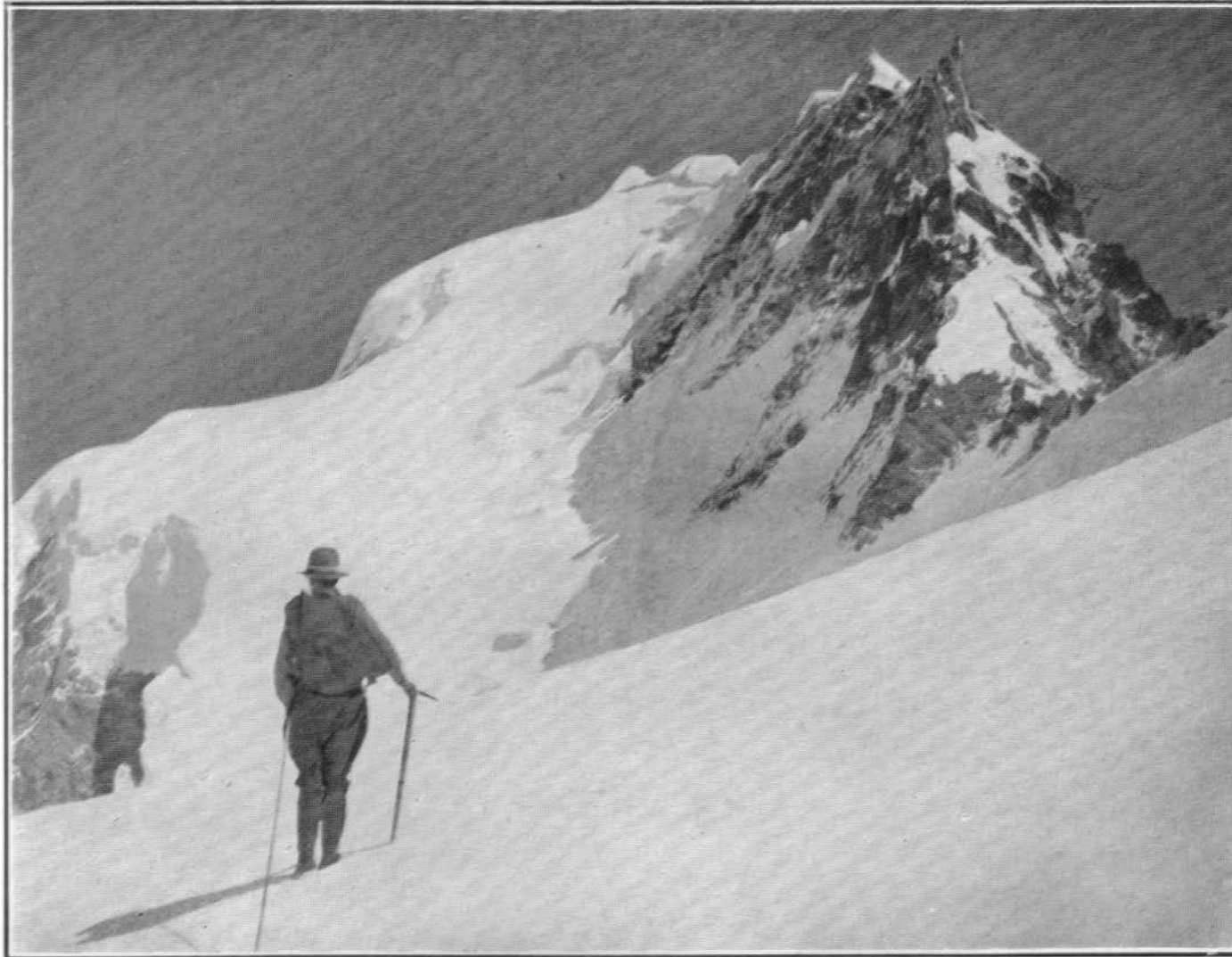
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A.R. Munday

Northwest Summit of Mt. Waddington
From 11,500 Feet on Councillor Peak

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MOUNTAINEERING SECTION

Mt. Waddington

By W.A. Don Munday

So little is generally known of the conditions of travel facing mountaineers in the heart of the Coast Mountains of British Columbia, where distances are always better rendered in terms of hours and days than in miles, that it is hard to express briefly the character of the difficulties imposed by the densely wooded valleys and unusually large glaciers guarding approach to Mt. Waddington, 13,260 ft., the highest mountain in Canada outside of the St. Elias Range. (In general usage, the peak is still better known as "Mystery Mountain.")

Accounts of our 1926 and 1927 expeditions appeared in the Canadian Alpine Journal, vol. xvi. My brother Bert had been a member of the original party, and the spring of 1928 brought assurance he would join my wife and myself again.

We left Vancouver on June 11 on the SS. Venture, in the same cloudy weather as had prevailed for nearly a month. The voyage of some 200 miles is one of surpassing interest, but space forbids pausing to describe the many magical waterways, broad or constricted, tortuous or straight, flanked by the bold shores of the innumerable islands clustering between Vancouver Island and the still more mountainous mainland. Weaving back and forth through unsuspected channels to hidden harbours, one gains a new knowledge of the beauties of this coast and of the lives its scattered population live.

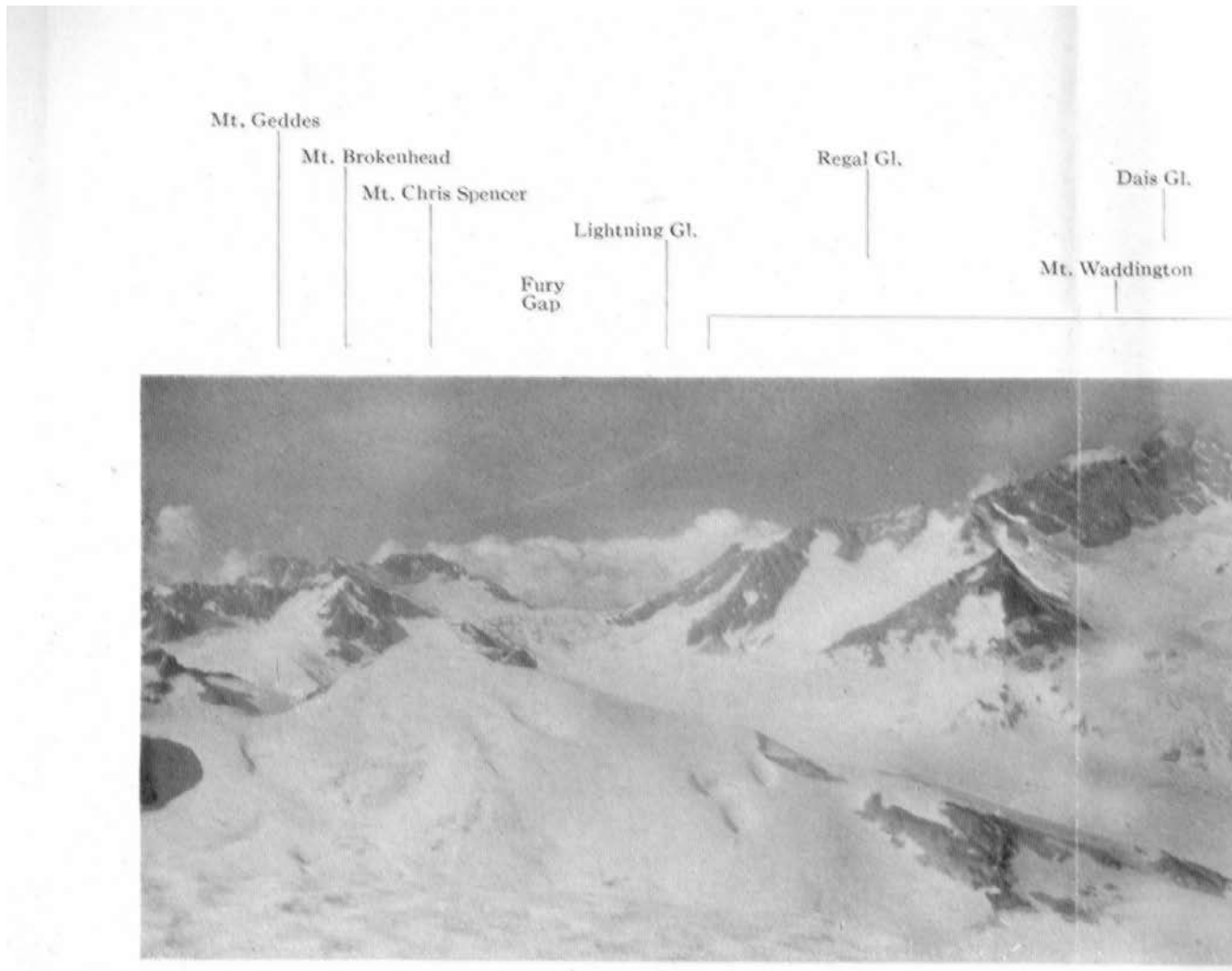
The voyage impressed on us that the amount of snow at a given date on the mountains near Vancouver was no guide to the amount likely to be found 150 miles up the coast; in 1926 we had found vastly more; this year there was distinctly less at the lower levels.

We reached the Knight Inlet cannery at Glendale Cove on the night of the 12th, received many courtesies from the staff, and continued up the inlet next day on the launch Willeen, belonging to the local fish warden. After lunch with Mr. and Mrs. J. R. Stanton at Kwalate Bay, we continued our voyage till about 6 p.m., when the packing blew out of a cylinder. We got out our outboard motor, put it into the boat, which the Willeen had been towing, and returned the compliment by towing her till repairs were effected. It was dark when we got our second load ashore at the same wretched landing place at the mouth of the Franklin River. We pitched tents on the camp site of 1927 in the dank alder grove and got to bed at 12.30.

The 14th was spent caching boat and engine, getting supplies across rough ground to camp, and all the various preparations for the start up the valley.

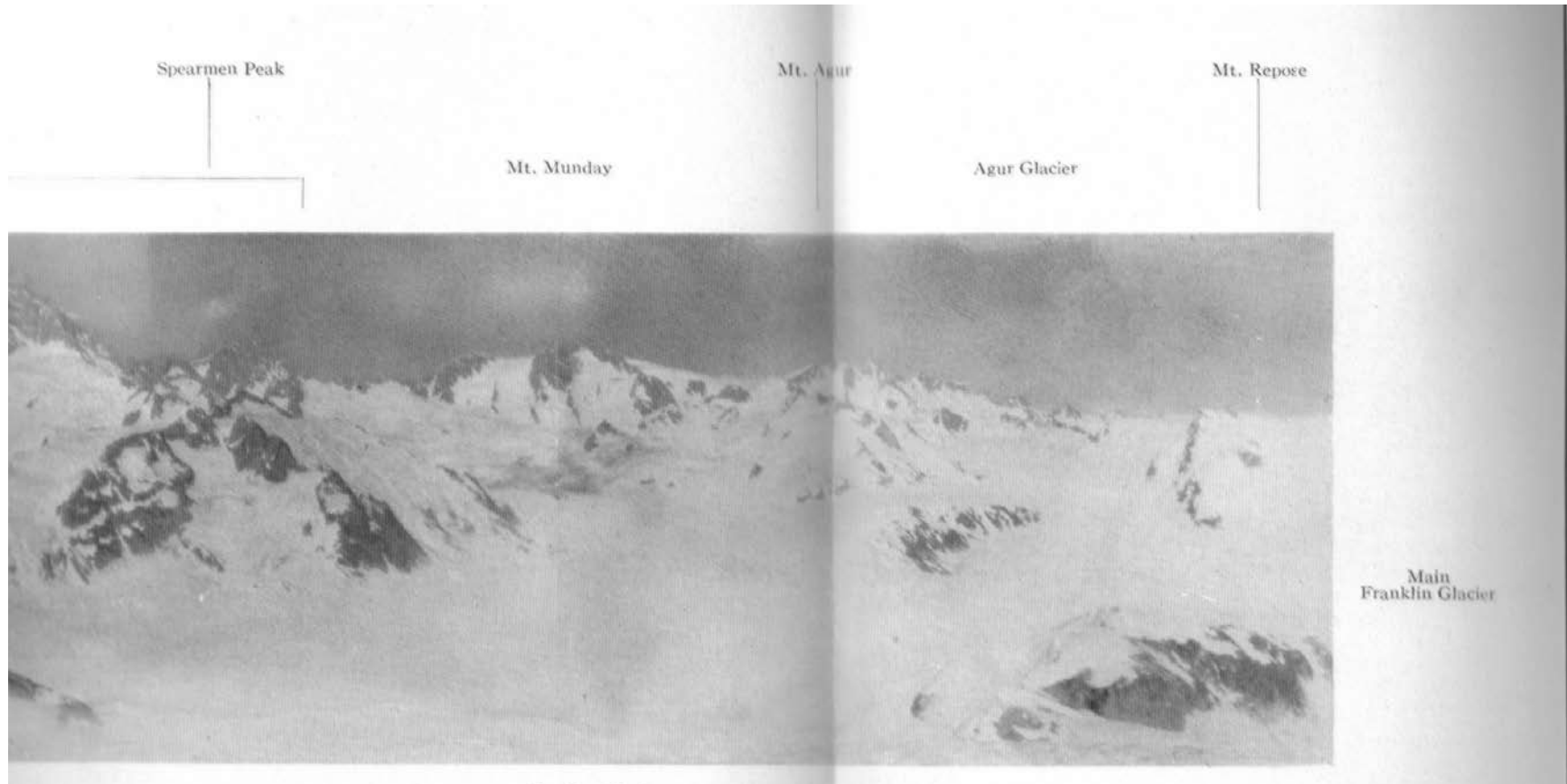
The journey up the valley to Last Valley Camp involved the usual uninspiring toil of back-packing through dense coast vegetation. The river was still working over to our side of the valley (the west), to the great detriment of our trail in places. By noon on June 19 we had all nine loads—ten at the start—at Last Valley Camp. We could have bettered this time somewhat.

Tracks in the sand the previous summer had shown that a timber-wolf had persistently



Mrs. Don Miunday

Panorama from Mt. Whitetip
West Branch of Franklin Glacier



Mrs. Don Munday

Panorama from Mt. Whitetip
Corridor Glacier

trailed a grizzly cub. The latter was now a sizable bear, for I met it at close range on the trail. Black bears were plentiful.

We found the Franklin Glacier much more shrunken than might have been expected in the period between September and June. The whole snout had altered considerably and the lobe from which the river issued had retreated on an average about 60 ft., but this is not really the snout as the river has undermined the western margin of the ice for about 400 yards, so that the water flows between a wall of ice and the western lateral moraine. One effect of the changes had been to allow the river to spread out, so that only comparatively small ice blocks now floated down it.

The surface of the glacier had changed very considerably in many places, sometimes for the better, sometimes for the worse. Many of the sharp ridges of ice near the snout had disappeared (later we saw them forming again); the deep valley between the two chief medial moraines had grown much deeper and its white floor was nearly buried under big rocks fallen from the high slopes on either side. New crevasses had opened and old crevasse systems had changed till little remained of them but shallow troughs still retaining lines of rocks which had been in the bottom of the crevasses.

We made two relays forward nearly as far as opposite Marvel Glacier, about 3,500 ft.; the snout is 500 ft. On the third day we broke camp and were accompanied up the glacier by Mr. R. L. Ramsell, a geologist, and his assistant, Mr. T. Charlton, who had joined us the previous evening. They wished to examine a mineralized formation where our base camp was to be at Saffron Creek, a mile south-west of Icefall Point. The day was bright and the glacier wind particularly strong and cold. We made good progress, thanks to our knowledge of the glacier as far as where we turned east formerly to the base camp at Treachery Falls, south of Yataghan Glacier.

About 2 p.m. our progress was checked by getting on the wrong side of an unsuspected surface stream, the gorge of which cut across the succession of big ridges where the glacier descends the "step" at 4,000 ft.; farther east this break becomes more chaotic. The course of this stream must have been established before the ice moved forward from the flatter stretch above and was ruptured into these great ridges. We finally extricated ourselves and got across to the upper angle of Confederation and Franklin glaciers. The ice now was more or less snow-covered and the area quite unknown to us as we worked up the western margin. Red snow of special ruddiness was plentiful along here, most of it a few inches below the surface, so that footprints simulated those made with badly wounded feet. The red snow seemed definitely related to the streaks marking the drainage through the snow of water from higher slopes.

The wind bore to us the pungent scent of wooded slopes warmed by the afternoon sun, and clear bird-notes invited us up from the lifeless wastes of the glacier. We toiled 200 feet up the moraine. The tent sites selected the previous year lay under from two to five feet of snow, and water trickled everywhere on the bare ground. All any of us wanted that night was a place to lie down. Ramsell and Charlton contented them selves with the rough trough behind the moraine, and my party with the flat top of a snowbank which we covered with some balsam boughs. We had ascended just short of 5,000 ft. with from 50 to 70 pounds.

Morning found us better able to appreciate the outlook across the glacier, here a mile and a half wide, to the long array of peaks extending northward as far as Mt. Munday. Our neighbours moved to the somewhat cheerless open plateau at 5,500 ft., but we decided to procure more comfort at the price of a few hours' labour, building platforms of logs to get level places on which to pitch the tents. This labour was going well when a wail from the cook announced that a subterranean stream had emerged in the fireplace. The flow increased till the whole neighbourhood became



Mrs. Don Munday

Mt. Geddes from Fireworks Peak

Mt. Monarch 11,714 feet in extreme distance, left of centre



Mrs. Don Munday

Scimitar Glacier

The pile of debris cutting halfway across clear ice from left side is remains of a landslide; the end of another shows in left foreground over rock spur

such a spongy mess that we deserted it disgustedly, made a fresh start, and in the end had a most comfortable camp for this kind of trip.

The trips down to the glacier cache on June 24 and 25 resulted in finding a very intricate but fairly easy route through the maze of crevasses between Confederation Point and the Franklin medial moraine.

There was still too much snow to allow of much geological work at the higher elevations; but Mr. Ramsell traced some of the contacts of the granitoid rocks and the mineralized volcanic breccia, the latter being attributed to the Cretaceous period.

The barometer remained steady and low, and the weather bad. On the 29th, my wife and I escorted Ramsell and Charlton on their way down through the worst parts of Franklin Glacier. Then we went across to Treachery Falls for equipment and grub cached there in 1927.

June 30 dawned bright, but turned cloudy. We went along the Franklin Glacier to Icefall Point, then up Whitetip Glacier to Mt. Whitetip, where we had an amusing search halfway around the mountain and back again looking for a second peak which had now shrunk to a minor rock shoulder. The summit, 8,700 ft., was a fine viewpoint. The snow at this elevation was fairly good, but lower down was rapidly developing the pitted surface so common in the Coast Mountains. The slope from Fury Gap, 8,700 ft., to the top of Fireworks Peak, 10,500 ft., was surprisingly bare of snow—our old Icefall Point camp was still partly buried, though only at 5,500 ft. on a southern exposure. We returned to camp across the Saffron Creek divide.

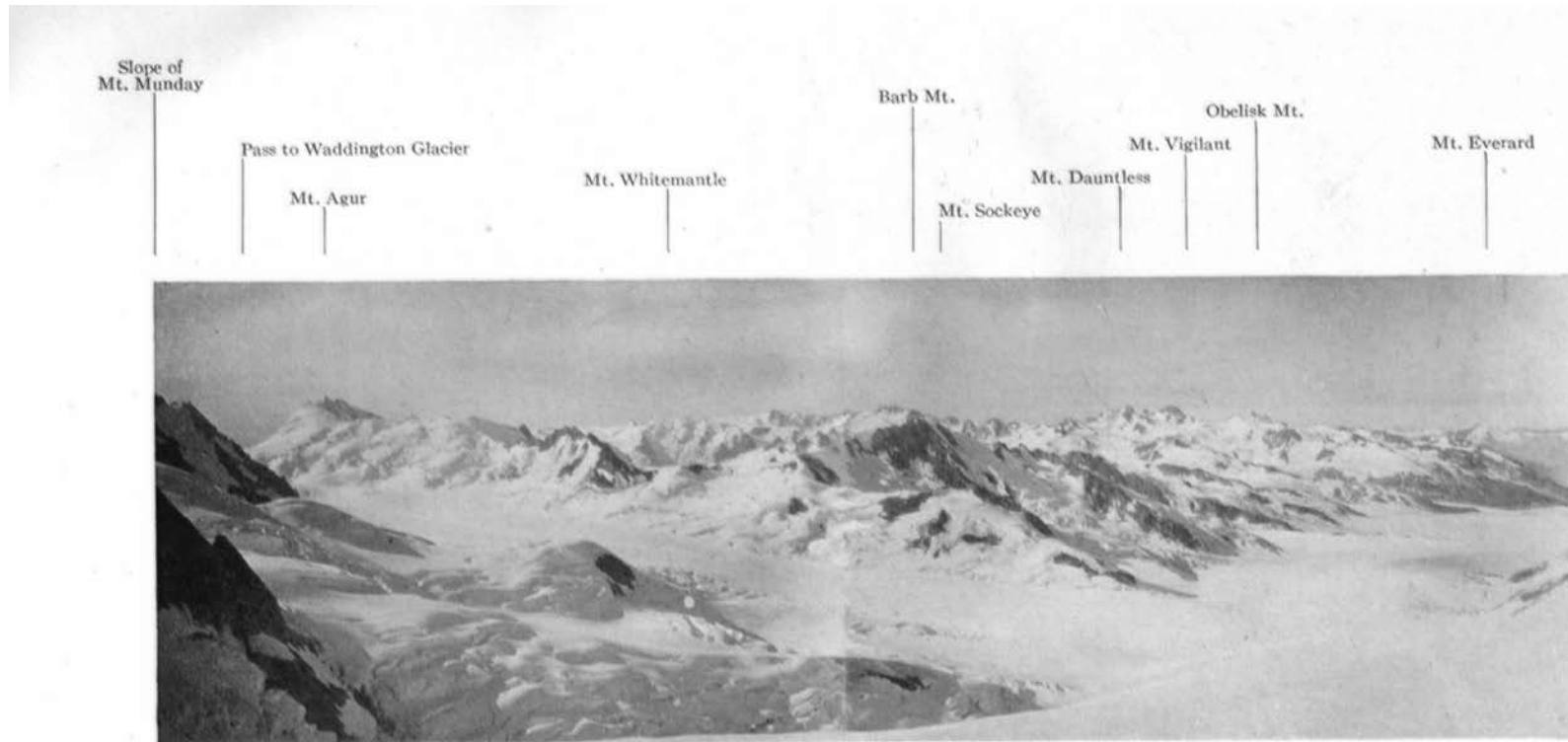
Four days of almost continuous rain followed, and we planned to start on July 5, in the belief that our only hope lay in establishing ourselves at Fury Gap, or higher, to be ready to take advantage of a fine day, if one came. The 5th dawned vilely, then turned bright. We climbed 1,800 ft. to Saffron Pass, then loaded our packs on a sled which we had built and carried up previously. The snow was too sodden for sledding. We went down Whitetip Glacier, but had to abandon the sled soon after starting up Franklin Glacier. On the long tramp up the glacier the cloud effects were magnificent, the loveliest being a cloud glowing with a confused mesh of rainbow glory which at no time took on the orderly arrangement of an ordinary bow.

We unroped on the rocks about 6.20 p.m. at 8,500 ft. beside Fury ice fall, built a platform of rocks to extend a ledge for the tent, set up the oil stove and soon had supper. An aluminum cylinder I designed to enclose the pots conserved so much heat that half a gallon of coal oil lasted us four days. Our old tormentor, the south-east wind, tested the anchorage of our tent early next morning. Dry, stinging snow turned to sleet, then rain. Late next forenoon the weather suddenly grew fairer. We crossed Fury Gap and mounted the rocks of the easterly ridge of Mt. Chris Spencer to about 9,800 ft. Above this the mountain was densely clouded and the route far from straightforward.

Mts. Waddington, Tiedemann, Combatant and Hickson were nearly clear.¹ Perhaps the great mountains had towered above most of the storms which had plagued us, for the upper levels of Waddington were in reasonably good condition. Seen from here, it is a singularly inspiring form, seeming to suggest arrested motion in its soaring rock ribs and narrowing crest, the whole forming a colossal barbed shaft poised in readiness to be launched in defiance of the heavens—a mountain beneath which one might well stand in awe and wonder.

A vigorous nursling of the mightiest giants of the range, Scimitar Glacier, descends precipitously in twin icefalls for 1,500 ft. On being consolidated again, its former division is still recorded by a double line of semi-circular dirt bands. We had thought it turned sharply eastward

¹ Ranging in height from 11,500 to over 13,000 ft.



Mrs. Don Munday

Corridor Glacier (right) and Ice Valley

The 1926 climb was through pass at left, down Ice Valley, and up glacier between Mt. Munday and Spearman Peak

around the precipices of Mt. Hickson to justify the course of Tellot (Grizzly) Creek on the maps; instead, it described two reverse curves, finally disappearing eastward perhaps eight miles away after receiving two important eastern tributaries from the Tiedemann group. A long, curving ridge of debris cutting obliquely across the normal moraines seemed to represent the remains of a huge rockfall, probably from the buttresses of Wadding-ton. Two similar ridges in the distance perhaps require the same explanation.

Reluctantly, we decided to forego the ascent of Spencer in order to prepare for Waddington. Only the most adverse weather would prevent an attempt on the 8th. Towards sunset the wind swung more to the west, the chill severity of the upper snows yielded for a brief period to kindlier lights, but their passing left the mountain world a frigid shadow of its mid-day self. On founding Icefall Point, the climber enters a region devoid of a single tree and without even a tiny alpland. From our camp to Icefall Point the glacier curved down like a Dead Sea of ice completely rimmed with fanged snow and rock peaks.

An icy wind raged through the Gap at 1.15 a.m.; the primus balked, and we did not get away till 4.40. All the seaward margin of the Coast Range was submerged in unbroken grey cloud lying at about 6,000 feet. We took much the same course as before up Fireworks Peak (10,500 ft.); beyond that the crest of the West Ridge permits no choice. Tricouni nails saved some step-cutting on the icy snow. We crossed Herald Peak, then the two Men-at-Arms Peaks, the 350-ft. descent of each being remarkably similar; ice and snow had encroached on the rocks, increasing the difficulties. Both descents called for traverses round icy funnels (blue ice, not snow), and on one a sinister feature was added in the shape of a cylindrical vent of ice into the head of a chimney.

Bodyguard Peak (about 11,500 ft.) now faced us with its massive casque of ice. (We had called it the "Bulge.") Crossing a masked bergschrund, we cut steps to the top, 11.25 a.m. We lunched leisurely, rightly judging that in the meantime the sun was softening the icy crust on the next dome, Councillor Peak, and saving us a bout of step-cutting. My wife had smuggled a tin of pineapple this far, despite my prohibition of bringing such canned goods beyond the mouth of the Franklin River; but the forbidden fruit was so refreshing that her insubordination now assumed the aspect of an inspiration. The ice-cap had encroached on the too-narrow "gangway," the cornice-like lip of rock leading down diagonally for more than 300 ft. There were two breaks in the ledge; the longer traverse brought us all out on the face of the ice-wall without anchorage for a few yards.

Mounting round the shoulder of Councillor Peak, we encountered a large, new crevasse a quarter of a mile in length. The normally lower lip stood higher, and in a different plane from the up-slope lip. This peculiarity marked several other crevasses met later. One small crack only a few hours old displayed a vertical displacement of two inches before we re-crossed it in the evening. No seasonal dirt-band differentiates each year's snowfall at this elevation.

A single fragile bridge permitted us to cross the bergschrund guarding the descent to "Angel Glacier." My wife pointed out as her guardian angel a white-draped figure of heroic size among the toppling masses overhanging the head of Scimitar Glacier.

We now faced "the long slope," nearly 1,500 ft. in length, leading to the snow terrace below the north-west peak. My wife took the lead here. Almost at once she found the way barred by a crevasse which could not be turned. It had not existed the previous year, and was remarkable for the breadth and thinness of its bridges. The best one cracked and sunk under Mrs. Munday before her guardian angel put a propping shoulder beneath.

Although we were in bright sunshine above the clouds, yet our boots froze, as in the previous August when we passed the 12,000-ft. level. Deep, loose snow on an icy surface made progress

slow. At 5.20 p.m. we reached the terrace and stopped for another tin of the "banned" pineapple.

We reached the bergschrund at the base of the peak at 6.20. Here, 400 feet below the summit, we were just about level with the mighty crests of Mts. Combatant, Tiedemann and Asperity, but Mt. Bell had at last sunk below our horizon.

The deep, coarsely-granular snow was hard, but lacked cohesion to support the foot, so steps had to be cut through to the ice beneath. A steeper stretch of about 12 ft. nearly proved insurmountable. Then the former angle was resumed.

The summit came suddenly, without any easing off of the pitch. It was a knife-edge of snow in a narrow U between two outward-flaring tusks about 25 ft. high. The time was 7.25 p.m. I cut a shelf in the eastern wall on which to stand while the others came up.

Corridor Glacier lay 5,000 ft. below us to the south-east. North-eastward we saw the mountain portal by which the East Homathko River enters the Coast Mountains at Tatlayoko Lake, and traced the gorge for 25 miles between rugged, nameless peaks to its junction with the West Homathko 12,000 ft. below us beyond the end of Tiedemann Glacier's 16-mile trench. Lowwa Lake reposed darkly in the forested angle of the two rivers.

Over the snow-crest of Tiedemann we looked down almost 10,000 ft. on Twist Lake, the West Homathko Valley reaching back from it into the violet expanse of the Interior Plateau which paralleled the range far into the north-west. Beyond the shadowy gorge of the Klinakline River, which traversed the whole range, Mt. Monarch (11,714 ft.), although 49 miles away, was not even in the middle distance in that sea of serrated, unknown, unnamed peaks and glaciers stretching to the shining horizon.

Bordering the blue Plateau the red mountains of the transition zone were formed of rocks older than the batholith; they lacked the bold architecture of the granite peaks. Though cut across by the great river gorges, the Coast Range here has a definite crest-line. Glaciers and snowfields decrease in size rapidly on the inland side. The region west of Scimitar Glacier bristled with innumerable spires of all sizes, but we could not identify a nameless mountain in this direction, triangulated as being 11,750 ft.

Shining cloud filled all the lower Klinakline Valley and the depression of its mighty West Fork glacier. Beyond this cloud-bank shone a splendid range of mountains 40 or 50 miles long, maintaining a general level of about 10,000 ft.; three loftier peaks stood toward the southern end, but the northerly summits looked higher. We had seen this range in 1926 under unfavourable conditions, and in 1927 dimly through smoke.

Victoria Peak, 7,484 ft. to the south, on Vancouver Island, mimicked on a small scale Monarch's slightly blunted rock pyramid. We saw the summits of Strathcona Park, and possibly Mt. Arrowsmith, 150 miles away. To the south-east, mountainous clouds permitted only tantalizing glimpses of the great Homathko snowfield beyond the Homathko River. The whole panorama covered at least 30,000 square miles.

The crest which we straddled has not been triangulated; though it is the culmination of the main mass of the mountain, there seems no doubt that the slender eastern pinnacle is a few feet higher. We had hoped to find it accessible from this side. No mountain yet attempted in Canada has such a well-guarded summit. As a consolation prize, our own summit was such a splendid conquest as to soften the disappointment of not reaching the very apex of the range.

We dared not stay more than 15 minutes. The first 500 ft. of descent cost us an hour. The sun was still above the horizon, but the whole mountain was transfigured with intense violet, green, blue, rose and bronze, while paler renderings of these colours dyed the lesser heights and



Mrs. Don Munday

Mt. Combatant and Head of Scimitar Glacier

Vertical elevation about 6,500 feet



Mrs. Don Munday

Northwest Face of Mt. Waddington

From slope of Mt. Chris Spencer in vertical elevation shown about 5,000 feet

tinged the lilac shadows of the icy valley depths to still more ethereal tones. Our shadows were bright blue, and blue shadows pursued the galaxy of fragments our rapid pace set rolling down the bronze slopes.

My brother led as far as the base of Bodyguard Peak. In deepening darkness, my wife led on the traverse of it and the two Man-at-Arms peaks. It was dark for rock climbing, but we knew every hand and foot-hold; and the icy blast and likelihood of evil weather did not encourage waiting for daylight on that shelterless skyline. Besides, my wife and I were accustomed to travel by night over any kind of terrain.

At the top of the West Man-at-Arms Peak, by the combined efforts of three pairs of numbed hands, we lit the carbide lamp. I assumed the lead over Herald Peak. The masked bergschrund had split open since morning. We reached the top of Fireworks Peak at 11.55 p.m. Having once descended its 1,800 ft. of huge, rough-piled fragments in storm, my wife and I did not hesitate now in fine weather. Although not a slope to command respect in one sense, it was still an exacting finish to a long day and with some risk of broken bones. The thermometer had been forgotten at base camp. A swift stream in Fury Gap had an inch of ice along the edge. At 2.20 a.m. we reached the tent; 21 hours and 40 minutes after leaving it.

The primus was soon purring defiance of the wintry blast shrilling through the Gap. Dawn was revealing snow clouds rolling up from the south-east, but the storm held off till mid-afternoon. The snow yielded to fine rain next morning as we broke camp.

Fog limited vision to a circle of a few yards as we plodded down the vast expanses of the glacier. The eyestrain was intense, and it was my wife who finally guided us to Icefall Point, where in a few paces we left behind the wilderness of snow and ice and rock, and sank down blissfully in blooming white heather, bird songs floating up the slopes and a burst of sunshine warming us through. A brief glimpse of Waddington showed it white with snow down to 9,000 feet. We lunched and went on leisurely to camp at 3 p.m.

The morrow brought a torrential thunderstorm; the thunder passed, but the rain went on unabated till long after daylight the following morning, July 12. A sudden clearing late in the forenoon tempted us to make a trip westward through Saffron Pass, across the upper slopes of Mt. Whitetip and Breccia Glacier to Mt. Myrtle, 9,050 ft. by aneroid, on the divide between Breccia Glacier and the hitherto unseen west branch of Confederation Glacier, thus completing our exploration of the mighty system of the Franklin Glacier with the exception of the precise relation of Mt. Bell to it. A late start and bad snow conditions prevented our reaching one of the 10,000-ft. peaks farther north-west, whence we could have overlooked the head of Portal Glacier and supplied this knowledge. Drifting cloud hid much of the scene. We reached the summit at 5.30 p.m.

On the 13th we prepared to break camp next day. We reached Last Valley Camp that day, the river mouth the next and Kwalate Bay on the 16th. We arrived at Glendale Cove on the 17th, and, embarking on the Venture, reached Vancouver on the 19th.

Rock specimens brought back were examined by Dr. Victor Dolmage, of the Dominion Geological Survey. The entire mass of Mt. Waddington would appear to be composed of gneiss and schist representing altered volcanic rocks older than the Coast Range batholith. They are cut by many porphyritic dikes and a much greater system of white or pinkish aplitic dikes, which in some places form more than 50 per cent of the rock.

The wall-like aspect of the range from Mt. Bell to Mt. Munday, and its marked superiority in height over the region immediately to the south, rather suggests faulting on a considerable

scale. Faulting or shearing on a lesser scale seems to account for the oblique notches which cut the massif of Waddington into at least a score of peaks ranging in height from 10,000 feet upward; slickensides were noted, indicating a nearly vertical displacement in two notches, but it antedated the intrusion of the aplitic dikes. What may represent another section of the same "roof pendant" exists east of the Homathko River, where stratified rocks seem to occur. It is of some interest to have established with reasonable certainty that the highest mountain in the chain is formed of rocks older than the batholith.

The outstanding feature of the Waddington region, and much adjoining country, is, of course, the immense development of glaciation. Nowhere in the northern hemisphere (except in the Himalayas) are glaciers of equal size found so far from the pole. Franklin Glacier is 20 miles long and descends 12,700 ft.; its area is 100 square miles. Waddington Glacier is over 11 miles and descends 9,500 ft. Tiedemann Glacier is 16 1/2 miles in length and falls about 11,000 ft. The length of Scimitar Glacier is unknown; it probably exceeds 12 miles considerably, being fed by the giants of the range. Another huge glacier must exist north of the Spencer-Bell divide, but only small sections of it were seen. The Klinakline Glacier vastly exceeds any of these in size, and in the area from Bella Coola to the head of the Lillooet River there is evidence of other great glaciers existing.

The Pacific Great Eastern Railway traverses the Coast Range close to Vancouver; from there to Bella Coola, over 200 miles, the range is literally an uninhabited wilderness except for settlements at sea level. Nothing, therefore, is known of the annual precipitation in the mountains, but figures obtained for the region close to Vancouver support the conclusion that there is a marked increase above and away from tide water.

Vancouver has an annual average of 57.96 inches.² Two valleys less than 500 feet elevation within 10 miles of the city have 108.95 and 128.23 inches. Somewhat similarly situated valleys within 25 miles to eastward have 102.24 and 141.88 inches.

Britannia Beach, near the head of Howe Sound, has an annual average of 75.33 inches; Waddington Harbour, at the head of Bute Inlet, 63.64; Rivers Inlet, at the head of the inlet of the same name, had 110.10 inches in 1927; Ocean Falls, on a branch of Dean Channel, has an average of 148.58 inches, and enjoys the doubtful distinction of being the wettest town on the mainland of British Columbia—Swanson Bay, opposite Princess Royal Island, had 155 inches in 1927, but Ocean Falls had 162.87.

Britannia Tunnel Camp, two miles from Britannia Beach and 2,000 feet above it, had 216.20 inches of snow during 1927 and a total precipitation 26.87 per cent greater than at sea level. An overwhelming proportion of the precipitation falls between September 1 and April 30; at Vancouver it is 85.79 per cent of the total; at Britannia Beach, 88.34 per cent; at Bute Inlet, 84.01; at Ocean Falls, 81.97; at Rivers Inlet (less than 10-year average), 89.68 per cent.

The month of heaviest precipitation varies from year to year, and between stations in the same winter, but ranges from October to January; 30 inches in a month at stations with an annual fall of over 100 inches is not really exceptional; the now abandoned Surf Inlet mine had 45.29 inches (expressed in terms of water) in one month in 1925.

The actual water content of snowfall in the Coast Mountains is certainly rendered too low by the conventional method of counting 10 inches of newly fallen as equalling one inch of water. Measurements made by me for five months one winter at 3,800 feet near Vancouver gave

² Figures are averages for not less than 10 years, unless otherwise stated. Data from Climate of British Columbia, Bulletin No. 27, B.C. Dept. of Agriculture, 1927.

ratios ranging from 0.5 to 0.9, 0.7 and 0.8 being usual. The bulk of the snowfall at this elevation comes with temperatures very little below freezing. There is little doubt that the great snowfall of the Selkirk Range is exceeded on the upper levels of the Coast Range, although the latter's large amount of cloudy weather does much to delay thawing.

The mean temperature of Vancouver is 49 degrees F.; Britannia Beach, 48; Ocean Falls, 47; Prince Rupert, 45; Anyox, 43.

Glaciers in the Coast Range are known to be generally in active retreat; but only a few measurements have been made. In Garibaldi Park in 1926, Sphinx Glacier had retreated 400 ft. since 1912. Part of the snout of Warren Glacier had retreated 150 feet since 1920, but at some time prior to 1922 the southerly part had advanced an unknown distance into green timber; this was due to a heavy morainal burden on which a few flowers grew above the ice.

In connection with glacial recession, interesting conjectures arise from a study of Alfred Waddington's map, dated 1863, of the lower Homathko Valley. Near Hamilton Point, near the head of Bute Inlet, is shown a small glacier conforming to the shape of a steep, scarred cirque which is occupied now only by a mere skyline patch of ice. Parts of the map are rough, but it evidently was an honest attempt to represent the country, and the question naturally arises as to whether this glacier has disappeared in the intervening years. Altogether, the Coast Mountains offer much to interest the glaciologist.

Trails of the Athabaska and Columbia, 1928

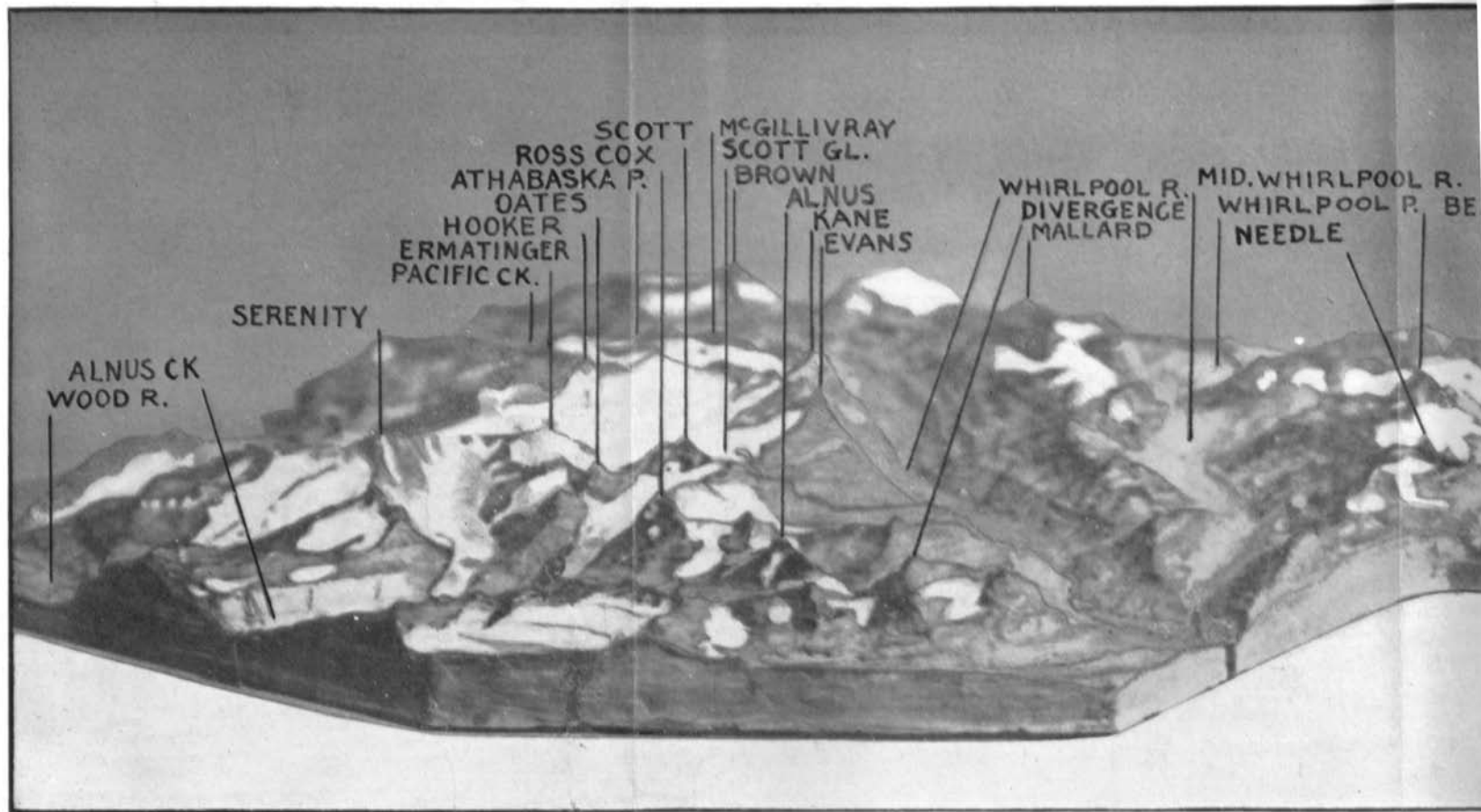
By J. Monroe Thorington

Early travellers who followed the fur-trade route westward, from Edmonton to the Columbia by way of Athabaska Pass, were confronted successively by the ranges of the Rockies, the Selkirks, and, as they followed up the Columbia, the Purcells. This was the trail opened by David Thompson, of the North-West Company, in 1811, and by the few white men who may have preceded him, as well as the countless traders and adventurers whose later and varied pursuits led them across the "Height of Land." Thus, the three ranges are great topographical features linked by this thread of path through the valleys of the upper Athabaska and Columbia.

In 1924, the writer and his companions visited Athabaska Pass, climbing Mts. Brown and Hooker, as well as other neighbouring peaks.³ During the early summer, 1928, another journey was made to the region in order to ascend the remaining unclimbed peaks adjacent to the Hooker Icefield.

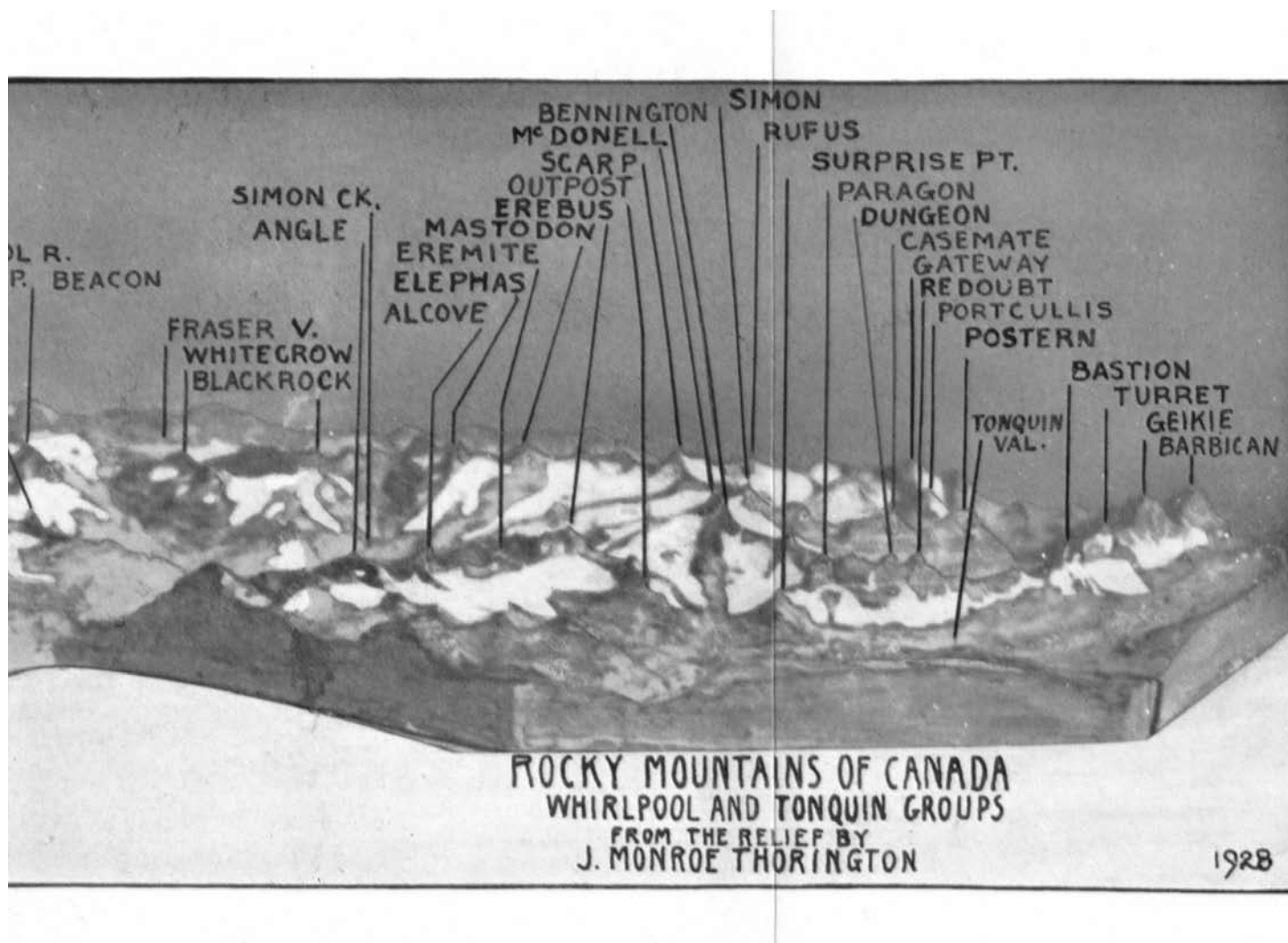
We arrived in Jasper on the morning of June 26 (William R. Hainsworth, Julian G. Hillhouse, Max M. Strumia and the writer), and left a few hours later with our outfit of fifteen horses in charge of Dave Moberly. Camp was made that night on the Whirlpool, near the old tie-camp. On the following day a difficult crossing was made of flooded Simon Creek, where it was necessary to carry all baggage over a log bridge. By evening we reached Scott glacier and established the base-camp.

³ "The Mountains of the Whirlpool," A.J. xxxvi., p. 299. C.A.J. xvi, p. 86. It is sometimes intimated that "Athabaska Pass" is a misnomer, since the route to the summit is through the Whirlpool Valley (Wheeler, C.A.J. xvi, p. 169). It should not be forgotten, however, that the Sunwapta and the Western Athabaska" were almost unknown before the modern day of Coleman, Habel and Wilcox. For the voyageur, the Whirlpool, or Riviere du Trou as it was then known, was the Athabaska. The name Whirlpool is a modernism (Hector; Palliser map) and is perhaps a translation variant of Trou.



J. Monroe Thorington

Rocky Mountains of Canada - Whirlpool and Tonquin Groups



J. Monroe Thorington

Rocky Mountains of Canada - Whirlpool and Tonquin Groups

On June 28, with heavy packs, we ascended the east lateral moraine of the icefall, cut a circuitous way through the upper séracs, and reached the Hooker plateau. Bivouac was placed on a strip of moraine below Mt. Scott, in the alcove into which pours the lateral glacier between Mts. Gates and Ermatinger. The light tents, stretched over a boulder, and our sleeping-bags, provided ample shelter. Alcohol was used for fuel. The spot commands a view of the magnificent Hooker basin, and its proximity to many peaks makes it most desirable as a hut site.

Shortly after noon we made our way upward to the high snowfield between Mts. Gates and Scott, with the latter as our objective. Rope was not used. The weather changed for the worse, and, although we caught a glimpse of Alberta and The Twins, mist and cloud swept in from the direction of Fortress Lake and obscured everything but the nearest features. It began to snow as we arrived on a summit, which, from the arêtes descending sharply to the northwest, we took to be the highest point, but which we discovered later was the southern peak, about 10,500 ft.

On the following day we made the first ascent of Mt. Ermatinger, 10,080 ft., a mountain that we greatly admired in 1924 on account of its precipitous icy northern face. Our route led over ascending snows nearly to the wide pass between Serenity and Hooker. We turned to the left and reached the Ermatinger-Serenity col at the head of the southern Alnus glacier. Here we encountered an interesting rock-chimney, just 100 ft. high, up which we scrambled to easier shale ledges, where we unroped and circled back to the highest point. The Wood River mountains showed magnificently above a level of fleecy cloud, while near at hand the northern precipice of Serenity held our attention with its huge arcs of curved strata. Hooker, which we knew of old, was a splendid icy spike, with the snowfield stretching to Mt. Evans and sending the glacier tongue cascading to the Whirlpool. We descended an easterly arête to the Ermatinger-Oates plateau and returned to the bivouac.

On June 30, Strumia and Hainsworth reascended Mt. Scott and crossed to the northern summit, 10,826 ft.; but the weather was again unfavourable and no view obtained.

During the night there was gradual clearing. On the morning of July 1 we packed up our camp and moved it to the edge of the icefall. Roping, we crossed the Hooker névé and made the first ascent of Mt. Evans, 10,460 ft., following the eastern ridge. The view into the Whirlpool gorge, more than 6,000 ft. below, is astounding, and through breaks in the filmy cloud we had views of the entire Divide from Columbia to Robson. It was a day of delightful atmospheric effects, and we were never too weary to enjoy the brilliant lights on the snow-face of Mt. Kane or the play of colour in the clouds lifting along the dark wall of Mt. Hooker. Shortly after noon we carried our loads down to the base-camp.

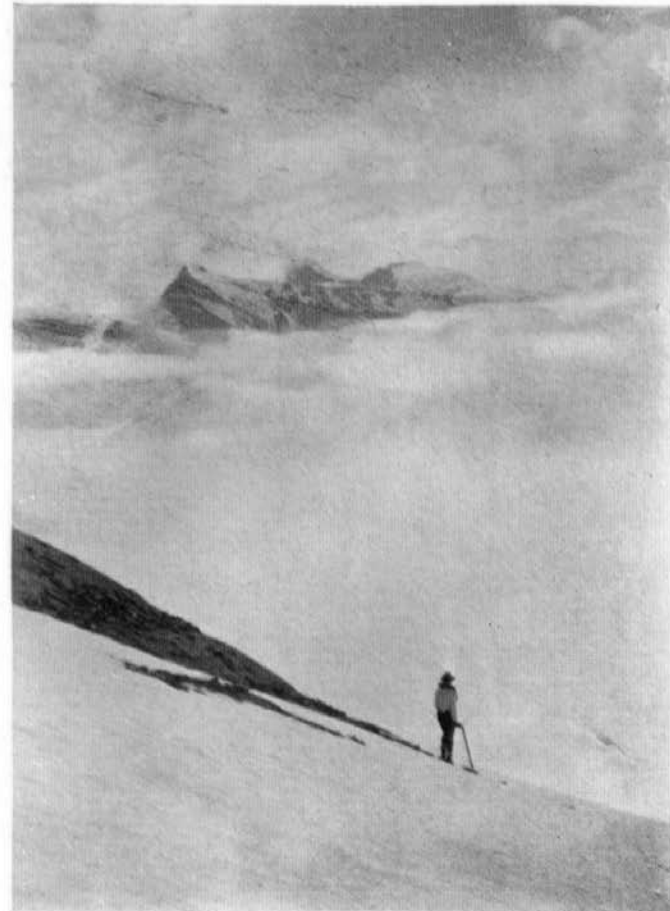
Next we took our horses to the lake in the course of the Middle Whirlpool, where there is trout-fishing; and spent a day on the slopes of Needle Pk., looking into the valley of Simon Creek, with the Fraser peaks at its head. To the south, one could see Athabaska Pass, and, across low ridges, the peaks we had so recently ascended. The upland meadows, bright with avalanche-lily and anemone, are happy places which one does not easily forget.

On July 5 we returned to Jasper, and on the following day went to Maligne Lake, where Hainsworth and Strumia remained to climb.⁴ Hillhouse and the writer, by way of the North Thompson and Kamloops, arrived in Golden on the morning of July 10, where we were joined by Eaton Cromwell for our prospective climbs in the Purcells. By the afternoon train we jogged lazily up the broad valley of the Columbia and were met at Windermere by our guide, Conrad Kain. After

⁴ A full summary of our 1928 climbs, with details of routes and times, will be found in A.J., xi., p. 362. See also A.A.J. vol L p 61 et seq.



J. Monroe Thorington
East Face of Mount Hooker
From Mount Ermatinger



J. Monroe Thorington
Mounts Ermatinger and Serenity
From Mount Evans

supper we loaded our packs into a motor-truck, and in the cool of the evening took the road from Wilmer with its lovely panorama of the lake and the foothills of the Rockies. We camped that night in Toby valley, at the mouth of Jumbo Fork, thirty-six hours after leaving Jasper.

Conrad had his horses in waiting, and on the following day we moved up the valley past numerous waterfalls to the moraine of Toby glacier, not far from Earl Grey Pass. The trails are rougher than those of the Rockies, mainly because of disuse, but the undergrowth is never as formidable as in the Selkirks, and the groves of stately trees are exceedingly fine.

On Toby glacier we invariably encountered a large herd of goat, enjoying the salt-licks and grassy slides near its terminus. For that matter, we were living well ourselves, Conrad serving up eggs and trout for nearly every breakfast.

July 12 was the day on which we made the first traverse of Mt. Toby, 10,537 ft.⁵, crossing it from north to south. The mountain is made up of splinters of granite, pleasantly firm, the top being reached in seven hours from camp. The sky was clear, and in the direct line of the main valley was Assiniboine—a landmark in the Rockies. Further south, the Royal and Military groups stood out against the sky, followed by a succession of peaks, the more distant of which we were solemnly assured must lie in Montana. There were interesting peaks close at hand, notably the compact group west of Earl Grey Pass at the head of Hamill Creek. These as well as many others are unnamed and unmapped. The better-known Purcells lay northward. We looked across the Shining Range, which lies between Toby Creek and Jumbo Fork, to the peaks adjacent to Horsethief Creek—the Jumbo range and the cluster of peaks surrounding Farnham (11,342 ft). The Bugaboo peaks on the Spillimacheen were visible, and, to the northwest, the Battle Range in the southern Selkirks.

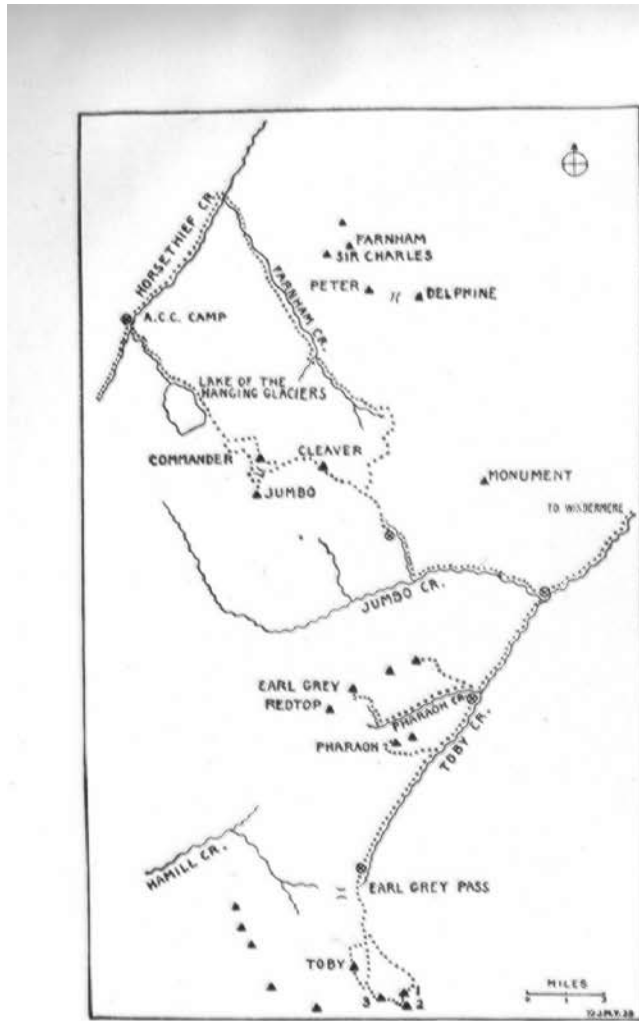
We descended to the far margin of the Toby snowfield, enjoying a bit of fancy cutting in a small icefall which we had not seen from above, and strolled down the glacier to camp—a twelve-hour day, of which we were to have more than one.

On July 13 we were again on the Toby snowfield, the goats racing off at our approach. On the southern rim of the field there are three small unnamed peaks, each of which must approach 10,000 ft. in elevation. The first two are in a north-south line, while the third forms with them a triangle, further westward and nearer to Mt. Toby. We climbed them in succession, reaching the first summit in a little more than five hours from camp. At two o'clock we were on the second summit, taking one hour between the peaks, although we descended to the snowfield. The third and westerly peak afforded some interesting work in a short stretch across wet slabs and through a tunnel of ice, by which this portion of the eastern face was traversed. We descended the rocky western ridge and joined our tracks from Toby in returning to camp. These peaks form the southern retaining wall of the Toby field and are the limit of mapped territory in the mountain section.

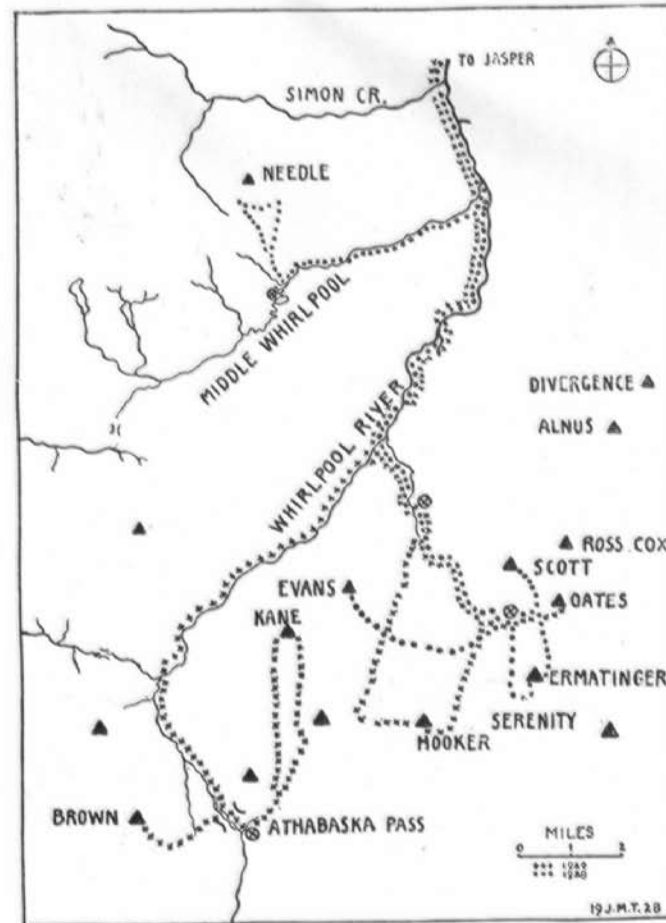
We were much attracted by the view to the south; there is a good rock-peak near the head of Dutch Creek and a higher snowy mountain almost west of it. Between the two we gazed into a forested U-shaped valley, with its stream flowing northward toward us, at the head of which there is a compact group of rock-spires rising from a glacial level. Whether these are watershed peaks, or, as we suspect, lie in West Kootenay, we could not determine. Directly below us were high benches, with waterfalls from several lakes; one, considerably larger than the rest, was completely frozen over, although there were large trees close by.

On July 14 we moved down to the mouth of Pharaoh Creek and on the following day ascended an easterly peak of the Shining Range, hoping to traverse to Mt. Earl Grey. Rope was not

5 This mountain was first named Mt. Gleason. C.A.J. iv, p. 104.



Map of Central Purcells, British Columbia
Showing routes traversed in 1928



Map of Whirlpool Sources, Alberta
Showing routes traversed in 1924 and 1928

required, although the climbing on the upper portions was not without interest. The summit, about 9,500 ft., was reached in less than seven hours, and is marked by a cairn of the Geological Survey. The traverse to Earl Grey appeared so long that we decided to abandon this route of approach.

On the following day we were able to make the first ascent of Mt. Earl Grey, 10,215 ft., the loftiest peak of the Shining Range, quite evidently higher than Redtop, its westerly neighbour. Four hours of hard struggle in a maze of alders took us to the cirque at the head of Pharaoh Creek, and we turned up a gorge that comes down the southern slopes of our mountain. This led to a high meadow, gorgeous with flowers, whence a succession of rocky ridges brought us to snow, steep and hard, up which we hacked a staircase to the main southern arête. There were several steep pitches and jagged towers, which brought us to the top, nearly nine hours from camp.

It proved a splendid viewpoint, with the broad corniced ridges of Jumbo rising across the green valley, with the Blockheads, Cauldron and Truce further to the west. A gloomy thunderstorm was sweeping down from the Selkirks, trailing skirts of moisture bordered with sunlight; so after a few minutes we left the ridge for lower levels, and were thoroughly soaked before reaching timber. After this, the very thought of alders was abhorrent; so we walked into the stream, four in line, and waded back to camp—the picture of mountaineers with a sea-going complex.

Next day was spent in trout-fishing in the canyon near camp. Cromwell and Conrad departed in the early afternoon and ascended the higher (western) Pharaoh Peak, which presents such a striking appearance as one enters Toby Valley. They reported a long pull through timber, with the reward of a short bit of sheer climbing at the top.

We were quite delighted with Earl Grey, and when, on the following morning, July 18, we moved up past the abandoned logging cabins into a northern lateral valley of Jumbo Fork, we discovered the reason for the name “Shining Range.”

Trail led upward in a succession of zigzags, over slopes of moss and ferns, through the most beautiful tall trees that we had seen. Through the foliage and from our camping place on a meadow a little below timber-line we looked across the valley to Redtop and Earl Grey, their slabs wet in the morning mists and shining in the sun.

The credit for the splendid high-level route we followed on June 20 must be given to Conrad.⁶ We left early in the morning and went up the winding trail to an old mining-cabin, and beyond into a snowy cirque. A short couloir brought us to the ridge separating Farnham Creek from a branch of Jumbo Fork, and we followed a succession of rising crests to the mountain known as The Cleaver, about 10,400 ft.⁷ Climbing up the rocky southern buttress we came to the summit cornices, beyond which stretches the snowfield that swings across to Jumbo and Commander and descends through Commander glacier to Farnham Creek.

Descending a little into the snowy basin we tramped across to the Jumbo-Commander saddle, being delayed as we passed the base of the gendarmes, known as the Three Guardsmen, by a crevassed slope and an open schrund. The weather was changing, and the looming snow-wall of Jumbo disappeared in mist as we circled toward it. Snow began to fall, and we walked cautiously

6 The first ascent was made in 1915, under Kain's leadership, following a traverse of Commander from Farnham Valley. C.A.J. vi, p. 107; vii, p. 25. On March 5, 1919, Conrad ascended the mountain alone, on snowshoes, by way of Commander glacier. Bull. Geogr. Soc. Phila. xxvi, April, 1928.

7 The peak, which appeared to equal in elevation the Jumbo-Commander saddle, was first unofficially named “Conferjohn.” CAJ. xiii, p. 239. Our route may be followed in part on the photo facing p. 22, CAJ. vii. Cleaver is incorrectly labeled “Commander.” The camp was behind the low ridge at the left, up which we ascended Cleaver, then crossing the Jumbo-Commander saddle, from whence the Lake of the Hanging Glaciers was reached.



A.A. McCoubrey

Commander (10,950 ft.), Jumbo (11,217 ft.), and Karnak (11,050 ft.) from the north.

Jumbo Glacier, in the foreground, was descended to the Lake of the Hanging Glaciers.



J. Monroe Thorington

Bivouac in Hooker Basin - Mount Evans at extreme right.



J. Monroe Thorington

The Farnham Group
From the Cleaver



J. Monroe Thorington

Mount Toby from the Southeast

with rope at full length. Occasional gusts of wind would suddenly reveal our peak and the ranges in the direction of Horsethief Creek, and, with obvious lines of retreat open, we continued to advance. The pitch of the slope increased, and there was ice in which many steps were cut—a zigzag line of them that kept us well behind the line of enormous cornices that project toward the south. Some five hundred feet above one comes to a short level ridge, leading to the base of the final dome—a Mont Blanc calotte in miniature. It was extremely cold and there was frost on our faces; for a few minutes we were on a lee-side, but as we stepped over to the summit (11,217 ft.) the blast of the storm met us. One could scarcely stand erect. Yet, for a moment, the fog drove past, and shafts of sunlight from the north illuminated glittering peaks and distant meadows. Then we beat a retreat, thankful that we had reached our goal, and scraped down the half-filled steps to lower snow.

Conrad led us in a westerly curve across the plateau. Suddenly the slope seemed to drop beneath our feet, and we gazed over a wall of séracs to a strange grey ice-tongue that ended in a lake of unbelievable lapis-blue, with white bergs in stranded lines along its farther shore. This was our first view of the Lake of the Hanging Glaciers.

We tried one route down, through huge crevasses, only to reach a slant of snow ending in space, forcing us to return and circle close to the wall of Commander. This position appeared promising, and for what seemed like a very long distance we descended wall after wall of hard snow, much of it grooved by the chutes of Spring avalanches. We could barely kick steps, but fortunately did not have to cut, and the cold of the day held the rocks solidly. It looks rather spectacular from below.

There is a good bit of scrambling to be done before the Jumbo glacier tongue is reached; in former days it was much larger and the lateral rocks are scoured smooth, with water and pebbles coming over them. In a little while we came to the lake, stopping in the larch trees to admire the curve of ice breaking into the water. The sun was setting as we passed the white bergs and reached the stream in the forest. We stopped to finish our provisions, and ran down in the gathering darkness to the Alpine Club Camp.

After a lazy morning at Starbird glacier, where the ice-tunnel had disappeared since Conrad's last visit, we prepared to return to our outfit. On June 24, Cromwell and Conrad went up to the lake and climbed to the notch in the north arête of Commander, traversed the mountain to the Jumbo-Commander saddle and retraced our route over Cleaver.

Hillhouse and the writer, hoping for an easier day, trudged down Horsethief and up Farnham Creek, finding the higher trails much overgrown with alders. In the lower reaches of Farnham Valley there is a fine deep canyon, with spraying water in the rock-worn grooves. Then, as one walks along, the Farnham Tower (11,002 ft.) rears into the eastern sky. Finally, we waded the torrent that comes down from Commander glacier, and crossed the main stream on a log to a nearby cabin.

Surely there is no finer glacier in the Purcells than the Commander, sending its icy claws down from lofty peaks, white and Lyskamm-like against the sky. Few in the Rockies compare with it. Our trail led us to the alpine gardens, near the abandoned Phoenix mine, past a streaming waterfall, to acres bright with flowers.

We stopped for tea in a spacious cabin, now the residence of countless squeaking gophers, and went higher through the larch trees to timber-line. Across the valley rise the precipices of Cleaver, and we watched a thundering cornice-avalanche fall from the summit. Behind us the silvery thread of stream stretched away to Horsethief.

Our hopes for a gentle stroll homeward had by this time been completely shattered. We were faced by the necessity of crossing a 9,000 ft. snow pass, with minor crevasses, complicated by the fact that our rope was being used in another part of the country⁸This was accomplished without mishap, although Hillhouse placed a foot through the roof of one tinkling cavern, and we encountered a short but steep traverse between two schrunds. Our camp was visible from the ridge, and glissading down a couloir, which is visible to the mouth of Jumbo Fork, we arrived at the tents in time for supper, a few minutes ahead of the rest of the party.

On the following morning we moved to Toby Valley, and, on July 24, the motor-truck took us to Wilmer, where we enjoyed and did full justice to a magnificent meal served by Mrs. Kain at Conrad's home. One should go there to see how sweet-peas and currants can be grown. In the afternoon we loaded up the truck and crossed the Windermere road, running from Vermilion Pass toward Banff, as the sun was setting.

Our pilgrimage ended a few days later in Montreal. We stood in the Mount Royal cemetery, beside a simple granite column surmounted by an old-fashioned sextant. At its base one reads:—

David Thompson, 1770-1857

To the memory of the greatest of Canadian Geographers, who for 34 years explored and mapped the main travel routes between the St. Lawrence & the Pacific.

Scrambles Around Maligne Lake

By M.M. Strumia

On July 6, 1928, we left Jasper in automobile: J. M. Thorington, J. G. Hillhouse, W. R. Hainsworth, and the writer. Curley Phillips was at the wheel. The road is excellent to the Jasper Lodge; fair to the Maligne Gorge; after that, a befitting description cannot literally be put into an abridged form. Medicine Lake was crossed in a fast motor boat; there the road turned into a trail. I hope that this admirably laid filter of roads will not be improved upon from the viewpoint of gasoline motors, for The Lodge was swarming with humanity; there were fewer at the Maligne Canyon; fewer yet at Medicine Lake; and after that, solitude and silent conversation with the lower hills prepared us for the first revelation of the great array of peaks that reflect on the placid waters of Maligne Lake.

We arrived there in the early evening, and I did not allow my desire for isolation to render me in any way intolerant of the comforts to be had at the Chalet. Ten days of trail life had made me ready for a compromise.

First Ascent of Mt. Charlton (10,450 ft.)

Hainsworth and I left the Chalet at 8 a.m. on July 7, in a canoe rigged with an out-board motor; a great sensation, that of gliding over green depths, toward unknown mountains! Beyond the Sampson Narrows, we came to the foot of our object: the north face of the virgin Mt. Charlton. We landed at 9 o'clock in a wooded bay, just past the delta of the Charlton Glacier torrent. We plunged immediately into a thicket of jack pine and low willows, where progress was made with a combination of breast stroke and profanity. The weather was antagonistic too: low hanging, gray

⁸ By this time, however, we could see Cromwell and Conrad descending the Cleaver ridge and answered their yodels. We had arranged that they should descend to meet us, but this detour was not required of them.



M. Strumia

Mount Unwin (right) and Mount Charlton
From the summit of Mount Florence

clouds began dripping a fine, penetrating, disconsolating drizzle. We struck the right orographic moraine perhaps 400 feet above the lake level: and that was good; but we followed it, and that was bad. The moraine was high, hard and extremely sharp. I have been fooled a number of times by such meek looking moraines: still, dirt is so much nearer our nature, that we instinctively keep to it. We followed the moraine to a point just above the glacier tongue: there we descended upon the black, uncovered ice. We crossed it, roped and started up a labyrinth of crevasses, just below the great ice fall of Mt. Unwin. There was a lot of soggy fresh snow; enough to cover crevasses, but not enough to make solid bridges. All the difficulties of that day were not of the inspiring type; no open rocks to fight, but insidious cracks to avoid; no straight-forward moving, but constant control of steps; not a flight of body and mind, but restraint of both, to avoid a misstep. Even the mountains were in a self-restrained mood; their heads cut off by an ugly stratus. Soon it began snowing. The direction and width of the crevasses brought us under impending masses of ice, and the progress, for the next two hours, was painfully slow and fatiguing. A strong southwest wind began to blow, and we began to freeze.

Our objective was the saddle between Mts. Unwin and Charlton: the key to it, a snow trough between the cuirass of ice of the north-eastern face of Unwin, and a peculiar blade of rock parting the flow of ice. It was filled with hard, lumpy avalanche snow, and the slow, dragged cadence acquired an element of irregularity that made it remarkably similar to a drunkard's walk. Above the gully, we were in the upper snow basin of the Glacier: very steep and cut across by a bergschrund. The snow was softer than below and covered with a crust. At 2.05 p.m. we reached a point a little above the saddle, on the eastern ridge of Mt. Charlton (10,000 ft.). Level determinations were taken and we profited by a temporary lifting of clouds to see our world: the beautiful white dome of Unwin, the glacier almost tumbling into the ash-gray of the lake, stretching away like the tail of a monster. Then we gazed upon the astounding precipices of the south face of Mt. Charlton. After a rest we started up and in twenty-five minutes were standing on the summit, having followed the easy eastern ridge. We were greeted by a dismal world, wind, snow, with a temperature of 32°F. We had but a glimpse of the mountains at the southern end of the lake. It was snowing hard when we left at 4 o'clock; retracing exactly our tracks, we ran all the way down: that was the only way to keep warm. On leaving the ice, we followed the left of the valley, to avoid perpendicular cliffs; then the torrent guided us to the sandy shore of the lake (6 p.m.). There we warmed at a fire until our faith in the skipper was rewarded, and once more we glided back to warmth and comfort.

On July 8 the outer world was very small; masses of evergreens, a strip of leaden water, low hanging fog, a touch of indifferent humanity, everything drenched with rain. Thorington and Hillhouse left for the Purcells; Hainsworth remained with me. We spent a good hour in the cabin of the Warden. Mr. Macklin told us that the camel-like peak at the end of the lake is Mt. Warren, that the peak to its left is Mt. Harry McCleod, and the one to the left is locally called the Thumb. That was about half of our knowledge of the local geography.

First Ascent of Mt. Sampson (10,000 ft.)

The boat landed us next day at 8.30 at the foot of the first rock slide of the great south-eastern face of Mt. Sampson. What a difference from the repression and introspection of the two previous days! Sunlight, clear cool weather, rocks of all sorts: what more could be desired for expansion and joy? From the upper position of the slide we cut to our right, and, unroped, we followed a series of rocky ledges above a cyclopean wall of smooth, water-polished rock. We gained thus, at a height of perhaps 9,200 feet, a point immediately below the northwestern ridge. We roped here

and I took the lead. The ridge was reached by following a little fissure of steep and insecure rock. We followed the ridge, but kept usually a little below the edge, to avoid huge tottering rocks. The rocks were not in themselves difficult, but their looseness and a thin layer of snow made several passages of this last portion rather exciting. The summit we found crowned by a huge cornice, thrown to dominate the great precipices of the northern wall. At 1.45 we were seated in a niche, on the snow of the summit, gazing upon one of the most marvellous panoramas I have ever seen. It was our turn to admire: to the east, an infinite world of low, unknown ranges (to us at least) ; to the south-east, the white mass of Mt. Maligne; more to the south, the huge Mt. Warren, and the head of Mt. Brazeau, Mt. Harry McCleod, the Rock Tower, Charlton and Unwin. Beyond these the glittering peaks of the Columbia Ice Field, dominated, at least apparently, by the great Tower of Mt. Alberta: then the mountains of the Whirlpool and others yet beyond. We left the summit at 3 p.m. and I have many times since asked myself: why did we not remain there, among great things and elevating thoughts to wait for the evening, and for meditation and for the mystery of a night in conversation with the stars? On the descent, immediately below the summit, we got into some steep slopes of soft snow where we spent anxious moments although fortunately few. In the main, after that, we kept to the line of ascent; and at 6.20 we were sailing the deep, homeward.

On July 10, we moved our abode to the southern end of the lake. The trip was attended with the usual vicissitudes that befall a motorboat, and for the last lap, Hainsworth furnished the motive power. We set camp on the right orographic moraine of the delta formed by the Warren Creek. It was a place of inspiring grandeur closed towards north and south, but open in the other directions. We made a brief reconnaissance of the valley opening to the east, which divides a little above and gives access to the Maligne Group and to Mts. Warren and Brazeau. We spied a possible approach to Mt. Warren, before being chased back to camp by rain.

First Ascent of Mt. Warren (10,800 ft.)

We left camp at 6 a.m. next day and followed the right orographic bank of Warren Creek. The going was fair, and we proceeded, for a time, along a well-marked game trail. At 7.45, we reached a point where three streams join: we crossed with some difficulty two of them, and selected the course of the one coming from our right as a line of approach to Mt. Warren, which lay hidden to us beyond mighty buttresses.

After a little rest, we followed the little stream, which soon became encased in great boulders, where we bathed as we climbed. At 9 o'clock we set foot on the Warren Glacier; exactly on the third ice tongue counting from the north. The going soon became rough; we had some hard cutting to get through the ice fall above, only to find that we could not proceed. To the right was a very steep rock wall, whence came the continuous crackling of rock falls; in front a great continuous cliff, swept by snow avalanches from the corniced summit ridge of Mt. Warren. On the left was a mighty fall of séracs. We tackled it with great determination, because it was the only way out, except retracing our steps for a better approach. And that was what we should have done. Instead, we fought green ice walls for more than two hours; and for the first time in my life, I had blistered hands from step-cutting. After the ice fall came a great snow basin; again the summit ridge of Warren was guarded by soft snow slopes breaking over an unbroken belt of perpendicular cliffs.

We now pursued a course due south, and parallel to the main ridge. The snow was soft and the sun hot. We came to a second snow basin and had to cross this too. Mt. Brazeau was exactly in front of us; an immense round white cone, displaying a magnificent armour of ice. Our only chance

now was to reach a short, steep, snowy shoulder, coming down in a north-easterly direction. We accomplished this, after crossing a bergschrund half way up. The slope was very steep and there was a good layer of soft snow, so that steps had to be cut on the ice beneath. We were tiring rapidly when we reached the southeastern ridge, perhaps 500 ft. from the summit, where we arrived at 4 o'clock in the afternoon, having employed 10 hours from the camp on Maligne Lake. We remained there one hour: one of those too short hours for which we live. We gazed upon a world of heroic proportions; and felt that we were by now getting to be a part of it. The return was silent and rapid. We left the morning course after the bergschrund and cut down at full speed along the central ice tongue. Even breaking through a snow bridge did not modify our disregard for the nature of the ground. Thus, with the better part of ourselves lagging behind to linger with the evening glow over the Peak, we entered camp at 9.22.

First Ascent of Peak Thumb (9,200 ft.)

Absence of alarm clocks is the best alibi for the time of our departure from camp next day — 11 a.m. We dragged ourselves up a rock slide immediately back of the camp, and leisurely strolled up a little valley with flowers, waterfalls, and miniature peaks. We did not use the rope; the Thumb that looks so formidable from the lake, is quite tame from the back: and following the eastern ridge we reached the summit at 5 in the afternoon. The Peak is one of the most aerial perches in the world; that and nothing else. We were back at camp, by 7.45, having rolled down in exactly two hours.

First Ascent of Mts. Florence (9,750 ft.) and Hawley

Another day full of the glory of forms and colors. We followed Warren Creek for about thirty minutes, and then turned north into a virgin miniature valley of extraordinary beauty: large evergreens, canyons, waterfalls, meadows covered with flowers, and cut by a network of game trails. We came upon marmots and a little above a herd of 21 goats. It was late, as we had left the camp at 10 o'clock, but we had to stretch ourselves on the soft green and admire Mt. Warren, an immense, sweltering, dazzling ice basin, supported by gigantic black walls, and crowned by a lofty summit. Our objective was to climb the round-headed peak appearing from the northern end of Maligne Lake, between the Thumb and Sampson, for which we have proposed the name of Mt. Florence. When we reached its base, at half -past three, we divided: Hainsworth chose to climb a peak northeast of Florence, which we named Mt. Hawley. Thus we hoped to gain more information about Mt. Maligne, formed of at least four peaks above 10,000, with two good sized glaciers.

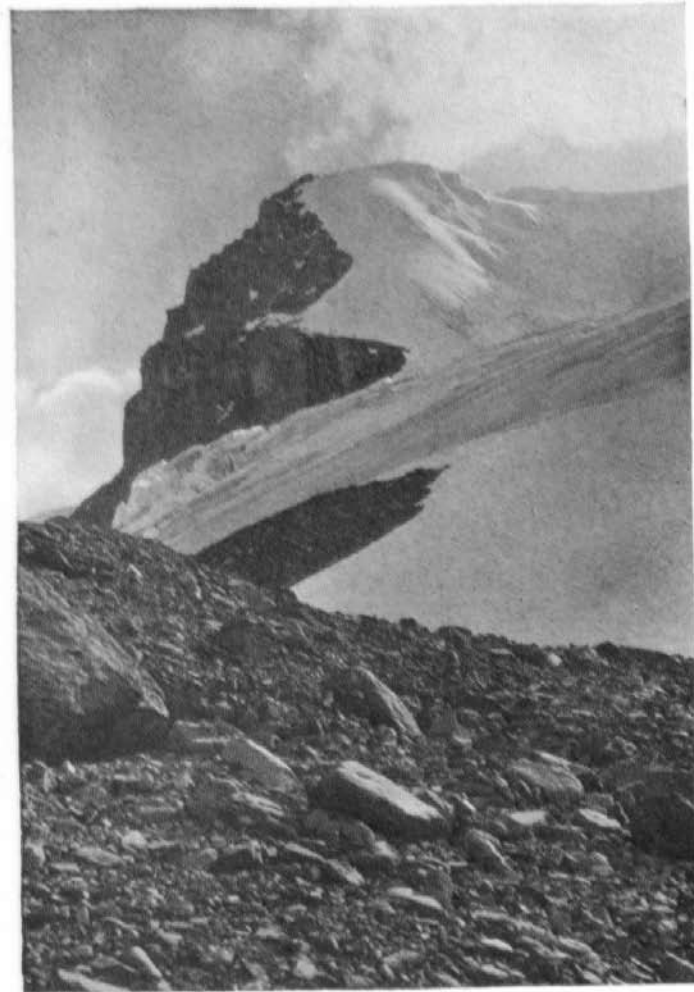
The southeast ridge of Mt. Florence proved easy: at 4.36 I was standing on the rocky summit, a few seconds before Hainsworth had reached Mt. Hawley. Stormy clouds were gathering above Mts. Unwin and Charlton. As I sat there, the immense world of silent peaks and valleys began to fill with memories; they came from near and far and they made the parting from the last adventure of the year less painful. It took us a little more than three hours to return to camp, and when we sat about the dancing fire the last streak of the day was dimming into the blue stillness of the lake.

It rained all night, and at noon on the 14th, the boat called for us and brought us back to the Chalet. In the afternoon it cleared and we had a last conversation with our white friends. The return to civilization occurred without accidents along the same route of our incoming trip; and everything was there, except our days of freedom.



M. Strumia

The Summit of Mount Sampson
From the Northwestern Ridge



M. Strumia

The Final Slopes of Mount Warren

The British and French Military Groups Revisited, 1928

By J.W.A. Hickson

Notwithstanding the opening up of motor roads in the Canadian Rockies, which enable one to be whirled in a day from Banff to Windermere or from Lake Louise to Golden and return, with hours to spare, the only means of approaching new peaks, and indeed some of the outstanding old ones, are still the use of one's legs or the tediously slow moving and expensive pack train. For long distances the employment of horses is almost indispensable, as those who have travelled extensively in the Rockies are aware, if only to cross the swiftly flowing streams; for canoes and rafts are not lying conveniently on their banks, and even if they were, would involve some risk to use. The riding of these quadrupeds is not without its peculiar risks, as the writer had again occasion to experience this last season.

Unfortunately, feasible routes of travel with horses are far removed from being straight lines. Our furthest camp on the expedition about to be described, was only a little over fifty miles in air line from Banff, but it required the best part of six days to reach and five days for the return. We covered on the whole trip 164 miles by trail. Is it chimerical to hope that before long one may be able to fly from Lake Louise to the Columbia Icefield and after a decent climb from the glacier return the same evening to the starting point?

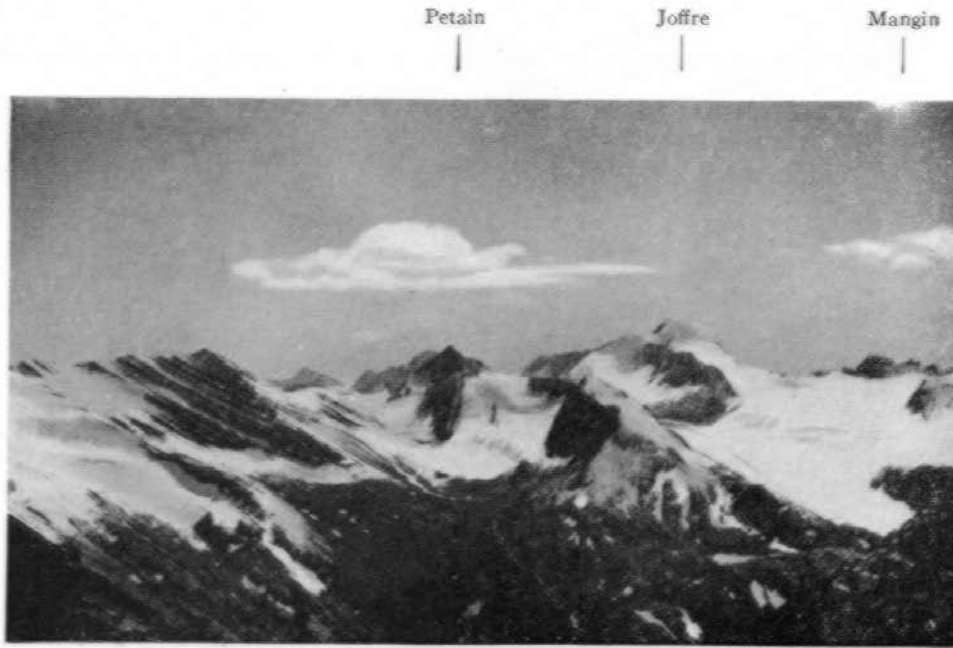
Other companions having failed, Edward Feuz, Jr., and the writer set out from Banff on August 8th to re-visit the scenes of a trip made nine years earlier and to push further south than was then possible. We were capably supported by "Scottie" Wright, an experienced and obliging man, who had been game warden for ten years at the Spray Lakes. He looked after the pack train, consisting of twelve horses, including five for the riders, who, in addition to the three already mentioned, included a cook, Curley by name, and a youth, Ray York.

On the third afternoon the party camped on the north side of Palliser Pass at about 6,125 ft., on the very spot where Feuz, the writer and a friend had spent several days in 1919, and whence the first ascent of Sir Douglas Haig, which dominates the Pass, had then been made.⁹ Thus far the trail had been fairly easy, but next day proved to be more difficult. A sharp ascent of some 700 ft. leads to the summit of the Pass, 6,836 ft., and thereafter follows a very steep descent, which, being without windings or zigzags, is trying for pack horses and not without risks for riders. Several of the animals fell down and got tangled up in the fallen trees which, however, were not so barrier-like as on our earlier passage. From the summit of the Pass to the Flats of the Palliser River, the drop is approximately 1,900 ft. The Flats themselves present rather tame scenery, except for a glimpse of the Royal Group, and are decidedly tedious to travel over.

Our aim on the fourth day was to make camp near the junction of Joffre Creek and the River, as we planned to proceed up the former to Sylvan Pass; and after some groping about we were lucky in our decision to stop at what was evidently an old camping ground on the river bank, picked out by Feuz, about a mile above the mouth of the Creek; for, as we discovered after settling down, we were here within a hundred yards of the trail leading up the side valley. After supper it was explored for some 500 feet upwards and the beginning made easier by the removal of some fallen trees.

The travelling on the following day was for the most part steep and rough, and in places

⁹ In an informative and entertaining article, "Passes of the Great Divide," C.A.J. vol. xvi, p. 162, Mr. A. O. Wheeler erroneously credits the Camp of 1922 with this ascent.



Ernest Feuz

Mts. Petain, Joffre and Mangin
From the north



Ernest Feuz
Traverse on Mt. Nivelles



Ernest Feuz
Stoneman on Mt. Nivelles

quite arduous. Alongside the turbulent creek the trail was extremely narrow and insecure. The writer's horse slipped, rolled over the bank and nearly landed him in the stream. The incident involved the loss for two days of our only pair of field glasses. Although higher up there were signs to indicate that the trail had been used for a certain distance probably as late as 1926; yet it was obvious that it is seldom travelled. At about half way to the Pass it emerges on a grassy slide, and then we lost it altogether on re-entering the wood on the further side. The reason for this, namely, that the trees were blazed on the upper sides only, was not discovered until our return journey to the Palliser. In consequence, we got into dreadful tangles of fallen timber, which greatly retarded our advance, all the more so as some of the ponies were inexperienced at the game and some had already passed their period of usefulness. This was one of the longest days on the trail. Starting at 9 a.m., as we usually did, on this occasion we did not make camp until 4.30 p.m.

Our camping ground was at approximately 7,400 ft., 2,500 ft. above the Palliser River and about 250 ft. below the summit of Sylvan Pass. Many elk were grazing about on our approach, and occasionally we saw half a dozen on the sky-line of the Pass in the evening. This was a lovely spot, covered with thick grass and dotted with clusters of fine larches, but not an ideal camping place owing to scarcity of water and unevenness of the ground. Even from our tents, which were pitched directly south-west of the unscalable wall of Mt. Joffre, which towered 3,800 ft. above us, we could see Mt. Assiniboine and had a magnificent view of the Royal Group; while the outlook from the Pass was superb, embracing a great sweep of territory and peaks to the south and north-west. Mt. Nivelles, however, the second highest peak of the French Military Group, which was one of our objectives, remained for the time being invisible.

On our arrival at the Pass a change of weather, which had hitherto been fine and mild, seemed imminent, and it came during the night. The temperature fell rapidly and it snowed quite heavily around the tents. The sixth day was impossible for climbing; our activities were mostly reduced to eating and trying to keep ourselves warm around the fire. Towards evening there were indications of better weather, and next morning, the 14th, Feuz and I set out to do some reconnoitering. Four hours going over side hills, at first under the enormous massif of Joffre, brought us to a spacious couloir up which we scrambled to a col some 1,800 ft. above, and south-east of our camp, whence we saw Mt. Nivelles directly opposite to the east. Although at no great distance in direct line, yet any attempt to reach it was barred by a ledgeless and perpendicular rock wall of 1,000 ft. on which we stood, which runs down to Nivelles Glacier. In order to climb the peak it was obvious that we should have to move over Sylvan Pass and approach it from the south. Before making this shift we decided to attempt the unclimbed Mt. Mangin, 10,030 ft., immediately north-west of Joffre and within convenient distance of our camp.

The weather was still uncertain that night and early next morning, and so the climbers did not start out on the 15th until 8.20 o'clock. The lower part of the route was visible from camp and presented no difficulties. Proceeding from the grass at 7,800 ft., we made for a huge couloir on the west side of the peak and ascended mostly on its right side to some perpendicular cliffs, round and tower-like, under which at 11.30 a second breakfast was consumed. The barometer here showed 8,750 ft., probably too low; for on the summit it did not show more than 9,850. The climbing was quite easy, but scarcely pleasant, owing to a north wind and the fresh snow lying on the rocks, which made one's fingers distressingly cold. Mitts could not be conveniently used. The rope was put on at 9,500 ft., although not required until several hundred feet higher up. Then we encountered the only difficulty of the climb, consisting of an exposed 30-ft. chimney running directly above a narrow ledge below which the cliffs were undercut. It seemed to offer the only way of ascent through the



Topographical Survey, Ottawa

Mts. Sir Douglas and Robertson and Haig Glacier



Topographical Survey, Ottawa

Valley of White River, Looking South from Sylvan Pass

Mt. Cadorna in centre; Mt. Abruzzi to right of Cadorna

last rock wall. After inspecting it critically, Feuz changed from nailed boots to rubber-soled shoes. As frequently happens, it was the first step in the short bit of perpendicular rock at the base of the chimney above which the hand holds were very unsatisfactory that proved to be the chief risk. A slip or fall here could undoubtedly have been very serious.

The writer established himself in a pocket on a small ridge at right angles to the ledge and played out the rope, belayed round a knob of rock, to Feuz, whose movements could be conveniently observed. After he had ascended, I came across to the ledge and tied the rucksacks and ice axes to an extra piece of rope which Feuz pulled up. We might just as well have left them there, since we were unable to discover any other route of return. With nailed boots, which scarcely allowed you to find a toe-hold, the beginning of the chimney was difficult. At its top is an overhang, which can be surmounted without much strain, owing to the excellent handholds immediately above it. From here all was easy-going to the surprisingly broad summit, reached at 12.45 and on which an hour and a half were spent in delightful sunshine. Far-reaching views in all directions, disclosing for us new peaks, glaciers and lakes, provided a very agreeable excitement. In the Purcell Range, Mts. Jumbo and Farnham, with its tower, were plainly seen and Howser Spires rose very impressively. Mt. Assiniboine was, of course, prominent; so were the Goodsirs, Sir Douglas and the splendid Royal Group. To the south many fine peaks reared their heads. Close at hand rose the great snow-clad apex of Joffre, to the east Mts. Sarrail and Foch, and the sharp ridge of Petain.¹⁰ Lakes, some of them unknown, lay around to the west and north; the beautiful Upper Kananaskis Lake gleamed in the sunshine.

The summit, on which two cairns were placed, was left at 2.10, the chimney was successfully descended and the rope taken off; almost immediately after which the amateur met with an accident, resulting in two slight cuts on the head. The employment of the rope would not have prevented it, and the alertness of Feuz averted a more serious mishap. We came down the big couloir more directly than we had ascended, reached the upper grass at 4.30 and camp at 5.15 p.m.

More arduous than the foregoing climb was that of Mt. Nivelles, 10,620 ft., accomplished two days later, after we had transferred ourselves and baggage over Sylvan Pass to a gulch some four miles further south. This move involved a steep and trying descent for horses to the valley of White River. The trail was so bad and the pack train so troublesome that the distance of four miles required as many hours to travel. For the last mile there was no trail. Our tents were pitched at approximately 5,800 ft., alongside of Nivelles Creek, which tumbled down for more than 1,000 ft. over precipitous rock ledges, and on the edge of a grassy slide with a thick wood close at hand, while above us to the east were very steep gravel and scree slopes. A singularly striking unnamed peak of castellated form, especially prominent from Sylvan Pass, and probably a little under 10,000 ft., rose above the camp on this side. Our objective, Mt. Nivelles, south-east of Joffre, was not visible from here, but we knew its position and could infer the route of approach.

Recognizing that it would probably be a long tour, we decided to make an early start next day, as the weather indications were now quite favourable. The men promised to call us at 4 o'clock; but at 4.50 I called to Feuz, who aroused the men. Breakfast was prepared very slowly, and we did not get away until 6 o'clock.

After twenty minutes of bush whacking, we came out on a steep slope of very hard gravel up which we worked for an hour. Then, surmounting a series of easy rock ledges, we reached an extensive patch of grass, approximately 7,200 ft., seamed by streams of spring water, which

¹⁰ 10,400 ft.; still unclimbed and not easy of access; a better-looking peak than either Foch or Sarrail.

slaked our thirst on the return. Skirting a muddy lakelet, we came to the slender tongue of Nivelles Glacier buried beneath mud and boulders. Thereafter was encountered the most wearisome and disagreeable part of the route, ridges of large and sharp stones, compactly held together, with trenches between, up and down which we had to make our way. The comparatively small glacier lay on the left, while we advanced more on the right side of the valley. It required three hours of steady going to reach the base of our peak and another hour and a half before we were seated on a scree-covered shoulder of it at approximately 9,450 ft. Shortly after this the rope was put on, as the slope increased rapidly in steepness, and its narrow ledges were covered with gravel which fell very readily away from it.

A cool wind stimulated the climbers, who bore to the left and proceeded up a couloir on the south-west side of the peak, thereby circumventing several prominent rock towers which jutted out from the ridge. The couloir ended in a more chimney-like formation at the top of which we emerged under what we then recognized as the second highest point of the mountain. Turning this on the left and traversing under the summit ridge, which was narrow and in one place at least looked very difficult¹¹ we faced a short and steep couloir that led up to the slender top on which we stood at 12.55 p.m. Just below it, the writer suffered a severe cut on the right forefinger through a small, but sharp stone, falling only a few feet. This was evidently, as the sequel shows, not one of his lucky years.

Our barometer did not rise above 10,475 ft. Again we had splendid views of the peaks seen from Mt. Mangin, and in addition of Mts. Cadorna and Abruzzi, which we could now clearly define, also of several fine unnamed peaks, and perhaps of Mt. Tornado much further to the south. The clearness of the atmosphere had never been surpassed on any of our trips. An unusual feature of this summer in the Southern Canadian Rockies was absence of haze or smoke. Eastward we could see to the foothills. The Elk Lakes and Elk Valley were especially prominent features of the landscape, while not far off on the west seven lakes were counted of the most lovely peacock green and blue shades, two of them fed by glaciers, the enormous tongues of which extended into the sheets of water. After some refreshment and the building of the usual cairn, we left the summit at 2 p.m. The route of ascent was retraced for a few hundred feet and then departed from in order to make use of a couple of couloirs filled with gravel and small stone by which we got down some 800 ft. in forty minutes to a huge buttress, whence we directed our steps to the snow patches on the south-west side. These were at this time of day in good condition for short glissades. Down to 8,800 ft. the going was not bad, but then the dreadful ridges of stone had to be crossed in order to reach the grassy flat on which we enjoyed a longish rest and some more food. Camp was reached again shortly before 7 p.m. The following day was one of inactivity for the climbers. At this camp it was much milder than at Sylvan Pass, where on several nights the thermo went well below freezing point. After some showers during the night, there was a brilliant sky on the morning of the 19th. The writer was still lazy, but Feuz and Wright set out at 9.30 to obtain a look over a pass to the south-east, directly under the tower-like peak already mentioned. Heavy showers fell throughout the afternoon and the men returned thoroughly wet. They had proceeded beyond the summit of the pass to a point on the east side of the peak, which Feuz calculated to have been approximately 9,000 ft. Seven or eight hundred feet of what looked like difficult climbing would, he said, have taken them to the top, but he did not see a way up or even consider the question, as he had no rope.

¹¹ On long first ascents, Feuz and I have never tried to select unnecessarily difficult routes.

Although the writer was keen to try this peak, yet the weather had now begun to assume such an unfavourable aspect that we considered it wiser to return to the Palliser River without delay, lest, owing to the severe storms which sometimes occur in August, we should be frustrated in our desire to climb Mt. Robertson in the British Military Group, which had been unsuccessfully attempted some years before.

Accordingly, on the morning of the 20th, after a night of rain, an early start was made under a leaden sky, which brightened during the forenoon. Progress to Sylvan Pass was rapid; barometer on the summit, 7,725 ft. Our former camping ground was reached in two hours, and the Palliser River in less than six, through our finding the proper trail. Although the sky looked threatening and the clouds remained low, no rain fell. Next day, on the way up the river, which is a ghastly scene of waste and destruction by fire, the dullness was enlivened by the sight of a huge grizzly bear and a couple of wolves dashing to and fro across the stream, evidently alarmed by some cause concealed from the travellers. Some time was lost in locating the trail leading up Leroy Creek. At first stony, it is now in incomparably better condition than when we were over it nine years earlier; towards North Kananaskis Pass it leads up in a remarkable corkscrew-like fashion. At 4 o'clock the summit, 7,680 ft., with its entrancing and colourful scenery was reached (barometer showed 7,625), and twenty minutes later a halt was made at a charming camping ground near Turbine Canyon, at 7,250 ft. This was the third notable pass crossed on this trip. Both Palliser and North Kananaskis Passes, each with a lovely lake, present very picturesque summits. It would be difficult to find more beautiful, even spectacular, scenery on any pass in the Canadian Rockies than that presented by the latter. Sylvan Pass affords finer and grander views than either of the other two, but the Pass itself has less colour and less variety and is devoid of the pink and white heather, a marked feature of North Kananaskis Pass.

In regard to weather, this was the finest day of our trip; indeed, it was perfect. The sky was a strong blue, and over it fleecy white clouds floated from time to time; there was not a suggestion of haze. The sunbeams poured down over the peaks and through the valleys with an exhilarating brilliancy and agreeable warmth. The evening was also delightful; but before we retired ominous flashes of lightning lit up the heavy clouds on the eastern sky.

During the night a change of wind brought about a complete reversal of weather conditions; it snowed down to 8,000 ft., and with the clouds equally low anything important was excluded for the day. On the 23rd I peeped out at 6 o'clock and called to Feuz, who had been up an hour earlier when the sky looked altogether hopeless. At 7.45 we got away, bound for the Haig Glacier, the tongue of which ended about 350 ft. above our camp.

Moving across the ice, which was in capital condition, was safe and pleasant, and at 9 a.m. we were 1,200 ft. above our starting point.¹² Higher up, the glacier was covered with recent snow, and as the ground was unknown we tied up. The walking, however, was excellent, no important crevasses being met with. Only the weather looked uncertain. Gradually the peaks surrounding the extensive snowfield came definitely into view; Jellicoe, prominent from the first, then French, Robertson, Sir Douglas and Munro, the last-mentioned looking as if near the top it might provide some very good scrambling. We reached the edge of the snowfield under Mt. Robertson at 11.15 and half an hour later the col between this peak and Sir Douglas, after an ascent of some 300 ft. of scree which moved down almost as rapidly as you moved up it. Being here at an elevation of 9,400 ft., and Mt. Robertson only 1,000 ft. higher, and the weather now appearing not too threatening, we

¹² From here to the end, this article is practically identical with one that is appearing, or may have appeared, in the new Journal of the American Alpine Club.

decided to try the peak. It was fairly obvious that it would be necessary to follow the ridge, which was likely to provide some fine "scratching."¹³

Its first part, approached from the south-west, consists of detached towers and great knobs of rock, seamed by small chimneys, with scree lying between. In forty minutes we had gained more than half the distance in height, having left our ice axes lower down. The more critical part of the climbing now began, and Feuz, who had several times surveyed the ground ahead with obvious satisfaction, declared that the climb would be a swell one. At about 10,000 ft. the ridge runs more directly north and south, becomes more jagged and so narrow in places as to be almost "knife-like." Quite frequently the amateur straddled it, and occasionally the guide did the same.¹⁴ Again and again the full length of the 80-ft. rope separated the climbers, who had to manoeuvre for relatively comfortable, though by no means safe, positions. At 1 p.m. we passed the small cairn placed on the ridge by the A.C.C. party of 1922, among whom was the lamented M. D. Geddes. This party of five had reached this point, less than 100 ft. in height below the summit, at 3.40 p.m., and considering its number and what lay ahead had wisely turned back. We advanced some 40 ft. higher on the ridge, which became more broken up and blocked by nasty teeth of all sorts of shapes and very friable composition. One has to climb over these, for there is no way of turning them. To belay the rope is practically impossible.

Feuz was sitting facing one of these obstacles and the writer was straddling the ridge when it was decided to stop. Neither of us enjoyed such an exposed situation on such rotten rock, which if it gave way, as seemed not unlikely, would have meant the end of both. Might there not be a way of escape and attainment under the ridge on the right side? On looking over, Feuz almost immediately exclaimed that he thought there was a safer route, if only we could descend about 100 ft. and reach a ledge. We retraced the ridge beyond the A.C.C. cairn, came down over some steep slabs of rock and gained the espied ledge. It entailed a longish traverse on a sufficiently wide rim running upwards and under the summit cliffs. On this we paid out the rope four times to its full length, and finally by the ascent of some 20 ft. of a perpendicular and rather rotten rock wall landed on the pointed summit a few minutes before 2 o'clock. Only twenty minutes were spent here, for hail and snow, which soon began to fall, warned us not to loiter; besides, there was a chilling wind.

The retraverse of the ledge was accomplished safely and the ridge regained, on which more "horsing" was indulged in.

Half way down the route was varied by making use of an easy couloir on the right and then traversing from its foot over loose rocks back to the ridge at a point a little above where the ice axes had been left. The descent from here on was quite simple. The col was reached at 4.30 o'clock, and after a short rest, with some food, we got down in less than five minutes to the snow. There being nothing to delay us on the glacier, we were in camp again at 7.15 p.m.

The weather, which for several days had seemed to be brewing a big storm, now looked so lowering that we decided to move down next day to Kananaskis Lakes and enjoy a rest and some fishing at this lower altitude, where if it did snow, the result would be less unpleasant. Actually, the weather did break badly on the evening of the 24th, and for two days almost nothing could be seen

13 Earlier climbers appear to have underestimated the difficulties of the ridge. In his excellent article, C.A.J., vol. XIII., p. 75, Mr. Sibbald writes: "Its aspect from the Haig side and from the Haig-Robertson col is innocent and deceiving. Mr. Hall's description (ibid p. 71) coincided with our own impressions from below. We underestimated the mountain until within 800 ft. of the top."

14 With one leg hanging in Alberta and the other in British Columbia.

of the mountains around the lakes. The fishing was very disappointing. On the way there the writer suffered a sprained ankle and other injuries to his right leg through his horse falling on a steep bit of the trail. Two miserable nights of pain were passed at this camp, followed by three trying days in the saddle on the way back to Banff. Soon after arrival at Lake Louise, the very annoying fact bore in on him that any further climbing was impossible this season.

Rogers Pass at the Summit of the Selkirks

By Arthur O. Wheeler

Word has gone forth that the 1929 camp of the Alpine Club of Canada will be held at Rogers Pass during the latter half of July. It is on the route of the Canadian Pacific Railway across the Selkirk Range. Only one other camp of the Club has been held there—in 1908—and the decision to repeat it after a lapse of twenty years calls up many recollections of the early days.

Rogers Pass is at the climax of Selkirk scenery. From it the water flows east and west through the range. East by way of the deep, dark gorge of Bear Creek, a tributary of Beaver River; west by the valley of the Illecillewaet River, a valley filled with semi-tropical, primeval forest, tangle-foot and devil's club, alder-grown avalanche slides, giant rockfalls, box canyons and swirling torrents.

The Early Explorers

First among explorers came Walter Moberly in 1865, who penetrated to the forks of the Illecillewaet River at Albert Canyon. He continued his exploration up the north fork, but it was late in the season and his Indians refused to go up the east fork, fearing they would be caught by the winter snows and never get out of the mountains.

Following in his footsteps came Major A. B. Rogers, the "Railway Pathfinder," who, in 1881, explored up the east fork to the summit of the pass—subsequently named after him—and then discovered the route adopted by the railway. At that time he named Mt. Sir Donald, whose towering heights dominated the pass; "Syndicate Peak" after the recently-formed syndicate to complete the construction of the gigantic railway enterprise. The object in view was to discover the shortest feasible route through the range, for Moberly had already established the possibility of a low-level route by following the Columbia River around the Big Bend. Had the main object been to find the best possible scenic route, no more magnificent one could have been found than that through Rogers Pass.

The decision was made and construction forthwith begun and pushed through as rapidly as possible. In 1883, Sir Sandford Fleming, Chief Government Engineer, accompanied by the Revd. Dr. G. M. Grant, Principal of Queen's University, made his famous trip over the road through the mountains, so vividly portrayed in his charmingly written book "England and Canada, a Summer Tour Between Old and New Westminster."¹⁵

It was on this occasion, while resting on a grassy knoll at the summit of Rogers Pass, that Sir Sandford, inspired by the towering heights on all sides, conceived the idea in a leisure moment of organizing a Canadian Alpine Club. In his own words: "The horses are still feeding and we have some time at our command. As we view the landscape, we feel as if some memorial should be

15 Published by Sampson Low, Marston, Searle and Rivington, London, 1884.

preserved of our visit here, and we organize a Canadian Alpine Club. The writer, as a grandfather, is appointed interim president; Dr. Grant, secretary, and my son, S. Hall Fleming, treasurer. A meeting was held and we turn to one of the springs rippling down to the Illecillewaet and drink success to the organization. Unanimously we carry resolutions of acknowledgement to Major Rogers, the discoverer of the pass, and to his nephew for assisting him." Although a whimsical conception, due to the superb mountain influences all around, it was a prophetic inspiration; for when, twenty-three years later, the club was organized, Sir Sandford Fleming was elected its first honorary president, a position he filled until his death in 1915, and his keen interest and support were strong factors of success during the early years of its growth.

Advent of Mountaineering

Completion of the railway through the Selkirks in 1885 led to the coming of mountaineers, explorers and lovers of Nature. The following year, 1886, Glacier House, a pretty little chalet nestling in the forest at the base of Mt. Abbott, and facing a fine cascade falling 1,100 ft. from the slopes of Eagle Peak directly opposite, was built by the Railway Company. It was right beside the track and was built with the object of "feeding the trains," for the palatial dining car had not then been introduced. It soon became apparent that this beautiful spot, apart from the train service, would be a favourite with mountain climbers and votaries of the great out-of-doors. A manager was installed and a register book opened. It has been computed by Prof. Chas. E. Fay that during the first year thereafter, 1887, independently of the daily stopping of the trains for meals, some 708 guests registered at the chalet.

A log book also was opened and was a joy to read. The unbiased sentiments of those who braved the terrors of the surrounding peaks with the Swiss guides stationed at the chalet were most confiding. One entry in particular appealed to me. It had reference to the climatic conditions at the Selkirks' summit during the latter part of the summer, which, to put it mildly, are somewhat variable. The entry was by a disappointed climber who had waited a long time to make the ascent of Mt. Sir Donald. It read as follows:—

"First it rained, and then it snowed, and then it friz, and then it thew, and then it fogged, and then it blew, And very shortly after then, it rained and snowed and friz and thew and fogged and blew, again."

In 1888 came the Revd. William Spotswood Green, the author of "Among the Selkirk Glaciers,"¹⁶ one of the most delightful books of the mountains that has been written. The story of Mr. Green's experiences in his survey and mapping of the Selkirks in the vicinity of Rogers Pass is a classic of the region, and his wit and humour as he tells the tale will be enjoyed by all who have had the good fortune to read his book, which alas! I fear, is out of print. The sharp peak on the ridge north from Mt. Bonney was named Mt. Green in his honour.

Mt. Sir Donald

This is the highest peak of the Sir Donald Range, 10,808 ft. above sea level. It is situated at the southern extremity, directly above the Illecillewaet Neve. A delightful path through the primeval forest leads beside a rushing, leaping torrent from Glacier House to the foot of the massif and to the ice tongue of the Illecillewaet Glacier. It is very beautiful along the shady pathway. The huge boles of giant fir, cedar and hemlock are all around; long beards of moss depend from the

16 Published by Macmillan & Co., London and New York, 1890.

limbs. The undergrowth is thick with shin-tangle, honeysuckles, white-flowered rhododendrons and the ever-present devil's club, fascinating in its bright-green tropical foliage and scarlet berries, but always ready to repel the intruder with its sharp, poisonous spines. Luscious huckleberries of several varieties are plentiful and furnish acceptable refreshment to the traveller. Many feet have trod this path by lantern light on their way to make the ascent of the mountain.

Thirty years ago the icefall of the Illecillewaet Glacier was a magnificently spectacular spectacle from the station platform at Glacier House, falling 5,000 feet from skyline until lost to view amid the forest treetops. As each daylight train rushed in, the crowds on board assembled on the platform and filled the air with cries of wonder and delight. One of the most frequent questions was: "How deep is the ice?" to be answered by those who knew, "Thousands of feet." Alas! for the inaccuracy of human knowledge! To-day the immense cascade of broken, glittering ice has so greatly melted that the ground floor rock shows even above the treetops. In those days a great cave was annually carved out from the ice tongue by the sub-surface torrent. It was possible to penetrate into it for a considerable distance, and it was a huge delight to visitors. The C. P. Railway Company was supposed to be responsible for this spectacular feature, as evidenced by the lady from Seattle who, having gazed at it in awe and wonder, wanted to know if it was a real glacier or one put there by the C.P.R. for an advertisement. This impression of the creation of spectacular effect was not confined alone to the Railway Company. I was once camped at Albert Canyon, close beside the station. My men were busy loading a pack-train to go farther afield. Suddenly an express train crowded with passengers from the Orient rushed in and stopped directly opposite my camp. In a moment all was wildest confusion. The horses became unmanageable, reared on their hind legs and careered around with men swearing frantically and trying to hold them. One horse broke away, dashed into the brush, leaped a log four feet high, burst its cinches and scattered its pack to the four winds. The people on the train, who had been thoroughly enjoying the miserable spectacle, clapped their hands, waved their handkerchiefs and shouted "encore."

Mt. Sir Donald was first ascended in 1890 by Carl Sulzer and Emil Huber, of the Swiss Alpine Club. The same year they also ascended Uto Peak, 9,610 ft., the next peak north.

The first ascent by a lady was made by Mrs. E. E. Berens, of Kent, England, on her honeymoon. The important question then was what should she wear for the occasion. A council of war was held by the ladies at the hotel, and it was decided that a pair of her husband's knickerbockers was the proper thing. She naturally chose his best pair, and was surprised several times during the day to find herself holding them up by a finger and thumb as though it had been a skirt. Such a thing would not occur now-a-days. Her remarks in the log-book were indicative of wisdom: "Be wise, friends, and do not despise a mountain; it always gets the better of you in the end ... In climbing, look for the next hand and foothold and nothing more, for if you look down it is apt to frighten you and if you look up you get discouraged."

Swiss Guides

In 1899 the Railway Company brought to Glacier House the two Swiss guides, Eduard Feuz and Christian Häsler, of Interlaken. They were fine fellows who have passed, insofar as the Canadian Rockies are concerned, although old Eduard still climbs in Switzerland. We have their sons and nephew now with us, and prime favourites they are: Eduard Jr., Ernst and Walter Feuz, Christian Häsler, and in addition we have Rudolph Aemmer and Conrad Kain. For endless patience, indomitable courage, steadfast perseverance and unsurpassed good temper they have no superiors

They take the veriest embryos on any and every climb;¹⁷ they haul them up cliffs, lower them down precipices, place their hands and feet where they should go, soothe their ruffled feelings, carry their paraphernalia and cheerfully assume the responsibilities of life and death; then, just before reaching the summit, they stand to one side, take off their hats and say, "After you, sair"; you step on the summit and, according to mountaineering etiquette, have made a first ascent or otherwise, that is blazoned forth far and wide.

The coming of the Swiss guides created a new era. Climbing became more general, and not confined only to mountaineers of repute in alpine circles and mountain clubs.

Appalachian Mountain Club

In 1890 came members of the Appalachian Club of Boston, represented by the "Grand Old Man" so well-known at our camps and in mountaineering circles the world over, our distinguished honorary member, Prof. Chas. E. Fay, of Tufts College, Massachusetts. He was much impressed, and his coming was soon followed by other ardent members whose names are well-known to us through the annals of the Club: Abbot, Thompson, Wilcox, Allen, Parker, Noyes, Little and others. They made many first ascents in the Asulkan Valley and in the vicinity of Rogers Pass, noticeably Mts. Castor and Pollux, the Dome, the Rampart, Mt. Cheops, Eagle Peak, Mt. Rogers, etc.

I first met Prof. Fay at Glacier House in 1901. We then discussed the formation of an American Alpine Club, organized in 1902, of which he was the first president. I was one of its original members and have been since organization. This year the great and much appreciated honour of life membership has been conferred upon me. We also discussed the formation of a Canadian Alpine Club, but the time was not yet ripe, and it was not until 1906 that our Club was organized.

In 1897 the Alpine Club (England) was represented in the Selkirks and the Main range by Prof. J. Norman Collie, also one of our distinguished honorary members, Prof. H. B. Dixon and G. P. Baker, who brought with them the first Swiss guide in the Canadian Rockies, the veteran Peter Sarbach, of Zermatt.

These keen mountaineers have made history in the Main and Selkirk ranges, and the stories of their doings are found in the issues of Appalachia and the Alpine Journal; also in the pages of Wheeler's "Selkirk Range"¹⁸

Glacier House

This delightful mountain resort soon became famous and additions were necessary to supply the demand for accommodation. A very charming and efficient lady, Mrs. J. M. Young, was made manager. Two distinct qualities stood out: a keen sense of humour and a sympathetic interest in all with whom she came in contact. She was lovingly known to those around her as "Mother Young," and all, from the highest plutocrat among her guests to the lowliest section man of the railway service, brought their needs and woes to her, to be met with ready sympathy and a humorous smile, and many of the needs were supplied from her own resources. Her particularly keen sense of humour furnished an endless supply of anecdotes culled chiefly from the idiosyncrasies of her guests. Two instances will suffice: A fine-looking old gentleman registered at the hotel and was given a room. Shortly after he appeared at the office in a state of great excitement. "Madam! I

17 This, if interpreted literally, would scarcely be fair to the intelligence of these men.—Editor.

18 Published by the Department of the Interior, Ottawa, 1905. A later, comprehensive and authoritative mountaineering book is Howard Palmer's "Exploration and Mountaineering in the Selkirks," 1914.—Editor.

cannot sleep in that room.” “Why ?” asked Mrs. Young, “it is one of our best.” “My dear Madam, the bed is not in the magnetic meridian” “Well!” replied Mrs. Young, “can you not put it there?” “Oh, may I?” “Certainly; you can put it outside the window, if you like.” And he went off quite happy, with his little pocket compass, to put his bed in the magnetic meridian

Then there was the young midshipman who was on his way to Hong Kong. Mrs. Young was wakened in the middle of the night by the violent ringing of his room bell. Thinking some one was sick, she went to see. On opening the door, she discovered a wild-eyed youth in pyjamas who could only exclaim: “My tickets! My tickets!” Having calmed him down and extracted an explanation, she found that his railway and steamboat tickets, supplied him by the British Admiralty, were in one of the pockets of his tennis flannels sent that day to the laundry. Mrs. Young forthwith went to the laundry and retrieved the tennis flannels, and, sure enough, the tickets, reduced to a ball of pulp in the washing, were in one of the trouser pockets. Thanks to Mrs. Young’s good offices and those of Mr. Tom Kilpatrick, Superintendent of the Mountain Division of the Railway, matters were promptly straightened out and the youth sent on his way rejoicing.

From the very beginning the hotel was a favourite. It has a most charming location in a little cultivated clearing cut from the primeval forest. Towering heights surround it on all sides. The mighty peak of Mt. Sir Donald seems to hang over it; and the wildly broken icefall of the Illecillewaet Glacier, glistening in the sun’s rays, is in full view. Directly opposite, a strikingly picturesque cascade, with a little summerhouse at its crest, leaps down 1,100 feet amidst the trees. North, a glorious view of Rogers Pass with the snowy spires of the Swiss Peaks beyond; west, a far-reaching vista of the Illecillewaet Valley bounded by snow-crowned monarchs, capped by billows of white cumulous cloud. The deeply cut, densely forested valleys are filled with violet haze, creating an atmosphere of mystery and imagination that belongs to the Selkirks alone.

Nightly around the blazing log fire in the assembly room the crowd gathered and swapped yarns, told of their day’s experiences and planned for the morrow. There were all kinds and nationalities, from the finished mountaineer to the passing tourist, and hair-breadth escapes were well in order. I remember one occasion of great excitement: A party had gone to climb Mt. Sir Donald. They had been seen through the big telescope on the summit during the afternoon and were expected back for dinner. Dinner was over and darkness had begun to fall. A search party was suggested, and it seemed that action should shortly be taken. Just then they hove in sight and a chorus went up, “Where have you been?” “Why are you so late?” A German gentleman of the party acted as spokesman: “Oh! Ve have had such an experience. Ven coming down, ve vere captured by an avelanche, which took us down ze mountain side, and my only vender vos vhy ve did stop.”

The chief charm of the hotel was its home-like atmosphere and the informal hospitality that led to a fine feeling of comradery and good-fellowship. It is deeply to be regretted that for the time being the hotel is not in operation, and that climatic conditions have caused the present building to be condemned. There is little doubt, however, that when circumstances permit a new hotel will be built, and that Glacier House will again come into its own. The location is too splendidly beautiful and the scenic attractions far too unique to be allowed to remain as an unvisited part of the mountain wilderness.

Activities from Rogers Pass Camp

In connection with the Camp, the question is: “What to do?”¹⁹

19 Owing to an unforeseen delay in the appearance of this volume, a part of the latter portion of this article was printed separately for circulation at the Annual Camp.—Editor.



H.W. Gleason

Hermit Range and Summit of Rogers Pass

Left: Mt. Grizzly, Mt. Sifton. Centre: Rogers Pk., Swiss Peaks., Hermit Mt. Right: Mt. Tupper

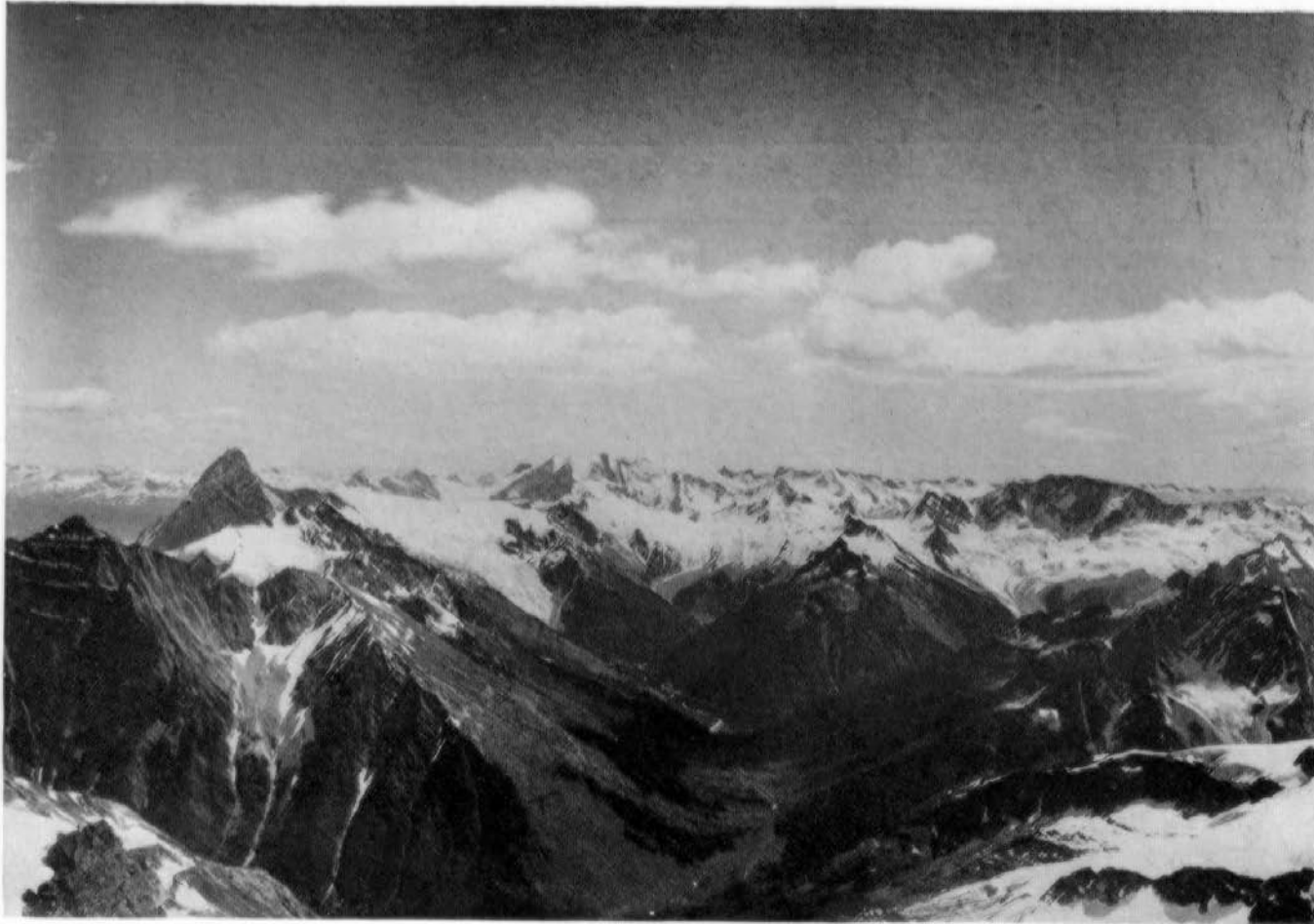
Rogers Pass—The camp will be quite close to the site of the old railway village, where originally stood a stone roundhouse for the giant locomotives at work pushing the trains up the heavy grades on both sides of the summit; also for the great rotary snow-plows required to keep the tracks open for trains during the winter months. When one considers that the average annual snowfall at Glacier is 35 feet, an amount that has been known to reach over 50 feet, one can realize the mighty effort needed for the work. For six miles east of the summit it was necessary to maintain an almost continuous line of snow-sheds to protect moving trains from avalanches hurtling down the towering heights of Mt. Tupper. Eventually the Connaught Tunnel was built and the snow-shed route abandoned. It is five miles in length and a full mile below the summit of Mt. Macdonald, within whose mass it lies. While greatly minimizing the engineering dangers and difficulties, the tunnel has had the effect of cutting out the magnificently spectacular views of the old route, when passengers on the trains obtained thrilling peeps at the awe-inspiring gorge of Bear Creek and entrancing vistas of Mt. Sir Donald, the great glacier and the snowy massifs of the Asulkan and Illecillewaet valleys while passing from snow-shed to snow-shed.

Since the inception of the Connaught Tunnel, Rogers Pass has only been visited by the occasional tourist and by grizzly and brown bears. The once busy railway depot has practically returned to the mountain wilderness. Buildings and other structures have been removed, and the ruins of the old stone roundhouse alone remain to tell the tale. Nature in her beneficent way has largely healed the scars and beautiful alpine flowers, shrubs and grasses now bloom between the old railroad ties, fast rotting away, and the site will in time present an open parkland of joy and delight to all beholders. The old railroad bed, both east and west, has been turned into a roadway, and those who travel over it derive the fullest enjoyment of the wonderful and varied contrasts of mountain scenery for which the Selkirks are so justly famous.

On the north side of the Bear Creek gorge tower in precipitous heights the rugged crags of Mt. Tupper, a magnificent rock climb readily accessible from the camp. Beyond lies the broad névé of the Tupper and Swiss Glaciers, enclosed by Mt. Tupper (9,229 ft.), Hermit Mt. (10,194 ft.), Swiss Peak (10,515 ft.) and Mt. Rogers (10,536 ft.). All are good climbs and can be reached from the Rogers Cabin, 2,500 feet above the site of the camp. A steep trail about half a mile east climbs to the cabin, from which the views are so tremendous and far-reaching that the beholder is well repaid for the exertions of the climb. At the front of the Rogers Amphitheatre, where the ice has retreated, may be seen striking examples of ice action. Here, in the old bed of the moving ice, are smoothly polished masses of bed-rock, and carved out, deep grooves with lines of striae marking their sides.

On the south side of the gorge rises Mt. Macdonald (9,482 ft.), a delightful climb for beginners, one that is begun directly from the camp. It carries with it recollection of the aspirations of one of the earliest members of the Club who, desiring a first ascent, made the climb with one of the Swiss guides. They had arrived, and the guide was duly extending the customary congratulations upon the prowess of "his gentleman." On the summit was a block of rock having a hole filled with water in its centre. The day was hot, the climb had been strenuous and the gentleman had bared his arm and plunged it in the cool water of the hole, when feeling something hard at the bottom he grasped it firmly and brought forth a rusty nail, thereby shattering the fulfilment of his dream.

Between Mt. Macdonald and Mt. Sir Donald lie Mt. Avalanche (9,387 ft.), Eagle Peak (9,353 ft.) and Uto Peak (9,610 ft.). All three are good rock climbs, commanding magnificent views eastward over the so-called Prairie Hills to the snowcaps of the Main range. Mt. Avalanche is the easiest of the three and can be climbed from the camp. The other two are more readily



A.O. Wheeler

Birdseye View From Rogers Peak to South

Left: Mt. Sir Donald. Centre: Dawson Range. Right: Mt. Bonney

accessible from a camp at Glacier House. Eagle Peak, so-called from the strikingly realistic rock form of an eagle perched upon its southern arête, is the best climb of the three. It brings to mind the night spent upon its ledges by Prof. Chas. E. Fay and Mr. Rest F. Curtis, so vividly described by Prof. Fay in the pages of *Appalachia*.

Glacier House Camp

From a camp at Glacier House there is much to do. Mt. Sir Donald (10,808 ft.), either by the west face route²⁰ or by the north arête,²¹ is an excellent rock climb. The north arête is the better and gives much satisfaction. Out-topping all around it, the view from the summit is superb and far-reaching. On a clear day the outstanding massifs of the Selkirks and Main ranges may be easily picked out; Mt. Sir Sandford (Fleming), 11,634 ft., the highest peak of the Selkirks, lies to the north and beyond may be seen Mts. Columbia, Bryce, Lyell, Forbes and, on an exceptionally clear day, even Mt. Robson. Eastward, Mts. Goodsir, Temple and Assiniboine can readily be identified. Southward, close at hand, are the high peaks of the Dawson, Bishop's and Purity Ranges, and Mts. Beaver, Duncan and Sugarloaf.

I made the ascent of Mt. Sir Donald in 1901 with the guides Eduard Feuz, Sr., and Charles Clarke, accompanied by two of my survey assistants. I then carried up a ten-foot flagpole, for I desired to use the mountain as a photographic and signal station. The climb was made without using a rope, which was left some distance from the top, as better time could be made without it. It was, however, used on the return, my assistants desiring the confidence it inspired. It was well we did, for while descending the ice slope near the foot of the glacier, one of the party lost his footing and shot downward, to be promptly checked by the guide at the end of the rope. We left the hotel at 3.30 a.m. and arrived at the summit at 10.15 a.m., six and three-quarter hours, a time frequently surpassed since then.

Asulkan Valley—From a camp at Glacier House all the peaks of the Asulkan Valley are accessible: Castor (9,108 ft.), Pollux (9,176 ft.), the Dome (9,029 ft.), the Rampart (8,476 ft.); and by way of the Marion Lake trail, Mt. Abbott (7,710 ft.), Mt. Afton (8,423 ft.), Mt. Swanzy (9,562 ft.), Clarke's Peak (9,937 ft.) and Mt. Bonney (10,205 ft.) can be climbed.

The Asulkan Valley, five miles in length, is a gem among high, alpine valleys. The path leads first through dim primeval forest, then in the open beside a foaming, tumbling torrent, leaping down in a wild display of white water. Waterfalls, seven in number, from the snows of Castor and Pollux break over precipitous ledges from great heights. At the head of the valley is the Asulkan Icefield and Glacier, leading to the Asulkan Pass. The trip across the icefield is of great interest, as it is much crevassed and requires care. One of Mrs. Young's pet stories was of a certain experienced (?) climber who decided to visit the Pass, but refused to take a guide. When warned that it was dangerous to climb on the ice without one, he replied: "My good woman, don't worry your worthy soul about me, I am not an infant. If you wish me to pay for a guide, I will do so, but I absolutely refuse to take one." Some hours later he returned, wet and indignant, marched straight to the office and, ignoring all previous conversation, exclaimed with much heat: "Madam! You do very wrong to send anyone on that infernal glacier without a guide. Why! I slipped and very nearly fell into a crevasse."

The Asulkan Pass is so-called from the fact that it is a favourite resort of the mountain goat, which I have been told is the meaning of the Indian word "Asulkan." There is no doubt that they are

20 See Canadian Alpine Journal 1924, article by Val A. Fynn, page 66.

21 See Canadian Alpine Journal 1910, article by Val A. Fynn, page 86.

frequently seen on the grassy slopes on the south side of the pass. From its summit there is a fine peep at the Geikie Glacier, one of the main outflows from the Illecillewaet Neve. The ice stream is seen at the bottom of the deep valley of the Incomappleux River. Across the valley, directly opposite, the Dawson Glacier falls steeply between two long lines of lateral moraine, which rise 200 feet or more above the ice and resemble levees that have been built to confine its flow. Several times I have seen flocks of mountain goats travelling in single file along these moraines, where they have made well-marked paths by constant use. At the head of Dawson Amphitheatre are Mts. Fox, Dawson and Donkin. Between Mts. Dawson and Donkin the Donkin Pass leads to the Bishop's and Purity Ranges; the latter presenting the most imposing array of icefalls I have yet seen. They seem to fall in every direction from skyline, and, as most of the peaks of the range are snow-covered and pure white, the name Purity Range seems very appropriate. It was in 1902, while exploring beyond the Donkin Pass, that we discovered the old camp ground of Huber, Topham and Forster, made in 1890. Among the relics were a rusty tea-pail, frying-pan and several tins of preserved meat. There was little doubt of it being their camp, for among other things we found a package of Swiss edge nails for climbing boots. We took with us one tin of Armour's Corned Beef. It was opened and eaten that night for supper, and though exposed to the heat of summer and the cold of winter for twelve years was in perfect order, and a pleasant change from our usual fare of fried bacon. A visit to the Asulkan Pass is well worth while, for the wonderful display of alpine glaciers, cliff glaciers and glacierettes is most spectacular and instructive.

Glacier Circle—This beautiful spot is an amphitheatre surrounded by the precipitous heights of Mts. Fox, Selwyn, Topham and Macoun. It opens to the Beaver River valley, but is reached from Glacier House by a tramp over the Illecillewaet N ev  and a descent of the south slopes of Mt. Macoun. It is a delightful bit of alpine parkland in which a cabin has been built by the Railway Company for the use of visitors. As its name implies, the Circle is surrounded by wildly broken ice-falls: the Deville Glacier, Fox Glacier and four others from the Illecillewaet Neve. Of these, the Deville Glacier, the northern outflow of the Deville Neve, is the most interesting, both scientifically and from a spectacular point of view. Here the ice falls from the n ev  over a ledge in a wildly disrupted cascade. Below, it straightens out in a more level flow, but in so doing, owing to the faster movement of the centre, a series of fan-shaped terraces have been formed that, seen from a height, display a wonderfully regular and unique formation. There are other instances, but this is the most perfect I have seen. Scientifically, it is the most gigantic illustration of the feature known as "Forbes dirt bands" to be found in the Selkirks, and I have seen nothing like it in the Main range.

The Deville N ev  stretches southward for some five miles, and from Glacier Circle a number of good climbs can be made:

Mts. Macoun (9,988 ft.), Fox (10,572 ft.), Selwyn (11,013 ft.) and Dawson (11,113 ft.); Augustine Peak (10,762 ft.) and Cyprian Peak (10,712 ft.) of the Bishop's Range; Mt. Wheeler (11,023 ft.) and Mt. Kilpatrick (10,624 ft.) of the Purity Range; and Mt. Topham (9,478 ft.). The tramp by way of the Illecillewaet Neve, some five miles in length, to Glacier Circle and the climbs that can be made from it are only for tried mountaineers of experience, skill and tip-top staying powers; those who can put one foot before the other and keep on putting it.

Bear Creek and Baloo Pass—Returning again to Rogers Pass and the main camp: Directly at the site of the old roundhouse is the entrance to the valley of Bear Creek. A good trail leads up it to Baloo Pass at the head. The valley is remarkable for the number of rockfalls that line the sides and have scattered huge blocks of rock over the bottom. It is a home of the Hoary Marmot,

or whistler, and is loved by bears, grizzly and brown, as a happy hunting ground. Between the rocks are dark cavernous spaces that suggest dens. On my first trip, alone, up the valley, I came to an open space grown with long grass. Huge blocks of rock lay scattered around; small spruce trees and shrubs grew on their crests. At the base of one huge block the grass was trampled and crushed by the weight of some heavy animal that had lain and rolled there. It made me feel eerie, and I glanced suspiciously around the lonely glen, when suddenly, directly over my head, came an ear-splitting, shrill whistle. My hair stood on end and my flesh began to creep. I looked up to see the very father of the whistler tribe sitting a few feet away on top of the rock. Signs of bear were plentiful in the valley and the name "Baloo" was given to the pass at its head.

From this valley, Mt. Cheops (8,506 ft.), a fine rock monolith directly west of Rogers Pass, may be climbed. While of no great altitude and a simple climb, it is well worth while on account of the magnificent cyclorama that is disclosed from the summit, for, in addition to the depths of the forested valleys with ribbon-like streams and the winding line of the railway, the tumbling icefalls and broad névés, full value is given to the snow-crowned peaks that tower above on all sides. Also, Mts. Ursus Major (8,938 ft.), Ursus Minor (9,026 ft.), Grizzly (9,061 ft.) and Sifton (9,643 ft.) may be climbed from Bear Creek valley.

Cougar Valley—Across Baloo Pass the trail leads to the valley of Cougar Creek. It is an exceptionally fine alpine valley of the type known as "hanging valley"—one that has been carved out in a U-shaped cross-section by the ice of prehistoric days and left high and dry as the ice gradually melted, receding to lower levels, and leaving only a steeply cut, V-shaped lower valley and picturesque cascade to tell the tale to those who can read it.

Cougar Valley abounds in alpine flora and fauna. Brilliant flowers bloom in the quick succession of the summer at high altitudes: Avalanche lilies, globe flowers, Indian painted cup, asters, mountain larkspur, epilobium, mimulus, spirea, pink heath, white heather and, highest of all, the pink-flowering moss; there are dozens of other species that do not display themselves quite so prominently. Of the fauna, the Rocky Mountain goat climbs the heights; grizzly and brown bear are seen; the Hoary Marmot, or whistler, sends forth his shrill note of warning on the approach of a stranger; the Parry Marmot, or tent-peg gopher, dwells in colonies all over the valley; and the Say's Squirrel and Little Chief Hare, or haymaker, are found among the rocks. The North American Eagle, attracted by the colonies of Marmots, soars, a pin-point, in mid-air; the handsomely plumaged Ptarmigan rise in coveys with raucous cries from directly under one's feet; and the little Water Ouzel, or dipper, bobs and dips from rock to rock along the cascades and falls.

Here, in this wonderful valley, are the Nakimu Caves, or caves of roaring noises—the Indian significance of the word "Nakimu." I prefer to call them the Caves of Cheops, for they are situated at the western base of Mt. Cheops and the name expresses their antiquity. The head of the valley is surrounded by icefalls sending out streams to unite in one central torrent. The torrent cascades down the valley and suddenly drops into a crack in the floor. This underground waterway has, during the ages, carved out subterranean channels from level to level, leaving behind a series of pot-holes, passageways and chambers that are of intense interest to explorers. I have no space here to describe them, or to tell of my survey and mapping of them, but such names as Gopher Bridge, Mill Bridge, Avernus, the Corkscrew, the Auditorium, the Witch's Ballroom, the Terror, the Turbine, the Art Gallery, Carbonate Grotto, the Marbleway, the Pit, Judgment Hall, the White Grotto and the Bridal Chamber suggest features of spectacular vision. It is an easy one-day trip from Rogers Pass to the Caves via Baloo Pass, and expeditions from the camp will doubtless be of daily occurrence.

From the foregoing, it will be readily deduced that there are many expeditions of surpassing delight for those who may not desire to exert themselves to the grade of athletics necessary for the summits of the peaks. The views along the roadway from Glacier Station to the camp at Rogers Pass summit, about three and a half miles, are so thrilling, so entrancing and so uncommon that one can spend endless time absorbing and enjoying the glory of it all, whether bathed in brilliant sunshine or showing in mystic illusion through swirling cloud wrack.

Ascents of Mts. Redoubt and Casemate

By J.E. Johnson

The party of climbers consisted of Messrs. J. E. Johnson, D. L. Busk and the Swiss guide, Hans Fuhrer.

Mt. Redoubt, August 15, 1928

The ascent was made from a camp just above the south shore of Moat Lake. The route lay along the scree slopes and to the base of the wall descending from the depression in the ridge to the east of Drawbridge Peak. At the foot of the westernmost of the two couloirs in this wall, the rope was put on and the ascent made over easy but loose rocks and grass ledges to the ridge (an hour and a half). From here the route led along the south slopes of the ridge east of this saddle into a gully descending from the west ridge of Redoubt. This gully is easily identified by three snow patches, which are probably quite large even in the driest of seasons. The ascent was made up the true left bank of this couloir to the base of the final summit cliffs (three hours from camp). Here the rope, which had been removed after the ascent of the first buttress, was again put on and the real climb began.

The final peak of Redoubt (ca. 10,200 ft.) consists of three approximately equal, very steep rock bands, separated by two broad scree ledges. Starting from the base of the first band, the route runs up a very distinct chimney, which extends the whole height of this band. There is one place where the face overhangs and the chimney disappears behind the face, giving a formation somewhat like a chock-stone. At the summit of the chimney, traverse to the right until the rocks of the second band look easier. Then ascend gradually and bear to the right into a rock couloir. Ascend the right side of this couloir for a short distance and then bear gradually to the left to reach the second scree ledge. Traverse this to the left, around a subsidiary buttress, and ascend steep cliffs on to the shoulder of the west ridge just below the summit; a short traverse on the north face and an easy chimney lead to the top (three and a half hours from base of cliffs).

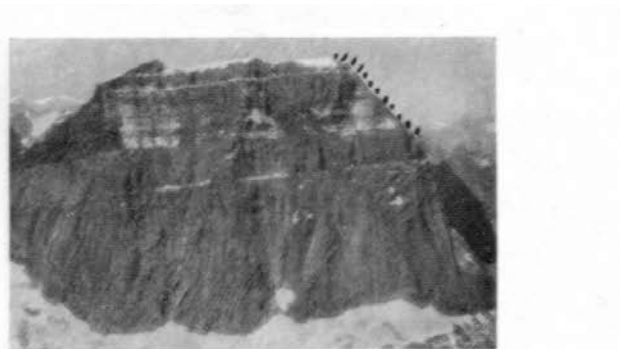
Descent was made by same route, which would be extremely difficult to find without cairns placed at important points. Descent to base of cliffs, three and a half hours; from there to camp, two hours. The times given are for a very fast party, and at least three hours more for the whole climb should be allowed for the average party.

From bivouac at Icefall Lake, ascend prominent couloir, which starts just below large snow patch on west face of Casemate (ca. 10,000 ft.) Slightly above timber line, bear to the left into subsidiary couloir for a short distance to avoid falling stones. Thence traverse back to the right over easy ledges into the main couloir. This ends at a broad scree ledge which runs around a buttress to the left. Follow the ledge across a subsidiary buttress on to a similar ledge and by steep rocks reach the main, north-west ridge of Casemate just above the Postern-Casemate col. Follow



Val A. Fynn

Dotted Line Shows Route from "Lookout"
Left to right: Redoubt, Dungeon, Oubliette, Patagon, "Keystone"



D.L. Bush

Casemate from Drawbridge Pass
Dotted line shows final part of route

J.E. Johnson

Left: Mt. Redoubt from "Lookout"

this ridge until it flattens out into a roof-like structure. Then traverse under the north face to the north ridge and follow this to the summit. The final 500 feet of the north ridge are very difficult and dangerous.

The descent was made by the same route. The party took six hours for the ascent and four and a half hours for the descent, but these times are again unusually fast; and at least two hours should be added for an average party.

A severe and protracted illness has prevented Mr. Johnson from writing a longer article for this issue of the Journal, which was to cover not only the above climbs, but others in the neighborhood of the Tonquin Valley. From an interesting letter to the Editor, the following may be added concerning the experiences of the party on Mount Redoubt:

After a preliminary reconnaissance, they had to wait for two days of good weather to clear the rocks of the fresh snow, and "again we started with a very definite idea of our route. We were on Lookout Pass in short time and removed the rope for the traverse of the scree slopes and small couloirs leading to the big fellow. We were almost caught by a rock avalanche, although it was still early in the morning. We arrived at the roping place in about three and one-half hours, and here we left all but one axe and one rucksack, and the climbing began in earnest. At one point we were forced to the right into a steep couloir, which seems to have been formed by the rocks breaking off from the summit tower, and which seems to be a very popular route, although we did not see or hear any fall. It was here on a ledge that Hans found Slark's rucksack with a pair of mountain boots in addition to the rest of the stuff; these were small boots, and from his size Slark must have had big feet, so I think it probable that Rutis²² was climbing in stockinged feet on the cliffs directly below the summit when they fell. It was a place we looked at in horror, and circumnavigated. I am firmly convinced that they fell and were not struck by falling stones. When we reached the top we found they had been there, but for some reason had built no cairn.

"The climb was not an exceedingly difficult one; I should say it was a degree harder than the east ridge of Cavell, but the rock was incredibly loose and excessively dangerous, to which danger was added the mental hazard produced by finding the rucksack.

"I see no reason why any sane person should ever try Redoubt again, as the risk is much too great. Spectacular work on Chamonix granite is all right, but there is no reason for it in the crumbly Rockies. On the other hand, Casemate and the surrounding peaks ought to be very interesting after some kind soul cuts a trail into Icefall Lake."

Some Memories of the Mountains

A. L. O. W.

My first visit to the Rockies was a summer in Banff in the late eighties before it began to be a popular watering place. There were good roads to the Cave and Basin, to the Hot Springs and to the Spray River below the Falls; but enough of mountain wilderness remained to give our holiday an aspect of remoteness. The next visit covered all the seasons and included a climb through the snow to the top of the hill called Tunnel; also a guideless rock-climb with five other unequipped innocents up the long ridge of Cascade Mountain to within 200 feet of the summit, on a glorious day in September. We saw Mount Assiniboine, white pyramid south, piercing the blue above, and wondered if it had a name. I forget the year, but by that time the village had two wooden churches,

22 Or Rutishauser to give him his full name.—Editor.

a good school-house and several attractive residences. The C.P.R. hotel had many guests, and one of the curious sights at the Hot Springs was an array of crutches and staffs hanging on trees nearby. You were liable to meet distinguished persons almost any day. The longest drive, barring that to Canmore outside the park, was over the long loop, down the valley behind Tunnel Mountain. Other roads gave a choice of several towards the Spray; one to Sun Dance Canyon and another around the face of Tunnel Mountain. Besides, many trails and footpaths ran through the woods. Winter was a continual joy by day and night. Every snowfall was windless and snow mushrooms were everywhere; the "gathered intensity" brought to the blue and purple in the recesses of the mountains westward, and all the changing colors were a daily wonder. In early spring on the hither side of Tunnel was a great bed of pale mauve crocuses. In summer there were fields of bluebells along the prairies on the eastern slope of the Bow, and the yellow columbine on Sulphur Mountain opened our eyes to luxuriant bloom in all its wildness. Early and late Fall, even in November, the air was crystal-clear, and the sky a rejoicing blue, to use offhand a term of Coleridge's. The clearness and the blueness enhanced the beauty of forest in its rich green of fir and the yellow deciduous poplar. How long ago it was! And what haunts the memory yet, is that lovely mountain landscape in the changing seasons. It was those early days in Banff that gave me an understanding of Wordsworth when I came to read his poetry.

There were other visits to Banff, in summer or in autumn. I remember a borrowed fishing basket and a climb down the steep bank of the river to the pool below the Bow Falls one fine sunset. When I reached the angler's recess, there I found a workman named Hughie, who generously helped with hook and fly and gentle instruction. I caught nothing, and Hughie gallantly helped me up the long, steep bank. Then I said, "It's a beautiful evening." He straightened himself, looked towards the west and said, "It's a beautiful world." Wordsworth would have made a poem on that incident, for it bore out his philosophy of the Dalesmen.

One summer in the nineties I left Banff in August and went on to the Coast. Returning in September, I halted at Glacier House for a day and night, or perhaps it was a night and day. I forget. Borrowing a pair of rubbers from good Mrs. Young, I took the trail to the Glacier and was overawed at the immensity of the ice above me, terrified at the noise and the impending mountains. I thought of the region of "thick-ribbed ice" and hurried away, relieved to meet a party on the moraine. It was a gray, windy day. On later visits to Glacier there were rides over enchanting trails, one being to the second bench of Mt. Abbott, with the trail's flowering shrubs, and the low-growing bloom on the high meadow itself, where we saw a ruby-throated humming bird. Another ride was up the Asulkan Valley, and a bit of a climb on the Asulkan Glacier, just far enough to give us a glissade with that handsome and reliable Swiss guide, Eduard Feuz, Sr. I remember, too, the evening, some years later, when my daughter came down from Mt. Sir Donald carrying a bunch of yellow dog-tooth violets, those delicate lilies that grow by the glacier. Our dear friend, Mr. Freeborn, was with her, and the two Swiss guides, Eduard Feuz, Sr. and Jr. The climbers were in fine form and dressed for dinner when there was a good tale to tell. On our next visit she made good on Mt. Tupper, the first lady and the second person to climb that mountain, so long an unconquered obstacle.

No one ever forgets the rapture of the first sight of Lake Louise. It was immediately after that solitary and terrifying visit to the Illecillewaet Glacier, that I halted for two days in the homely, hospital chalet, where the chief visitors were travellers and climbers from the round world. The train was late and the waggon that carried me to the Lake was carrying away a man to catch the west-bound train. As he left the verandah, he put a sketch-book in his inside pocket, and addressing the single arrival at the Chalet: "Oh, how I hate to leave this place," said Bell Smith. So was it in

the brief golden age of Lake Louise. The Windless dining-room was also the office; there were few servants; the guests could, and would, make their own toast at the huge fireplace, where talk of other lakes and mountains in the Old World was heard that night.

There was no furnace, but happily a few baths, very cold indeed. I rose early and set off alone for the upper Lakes, Mirror and Agnes, following an excellent trail, on a strangely exhilarating morning. I saw no bears, though I heard the chatter of little wild creatures, and once when I looked up to the narrow reach of sky, an eagle was slowly wheeling in the blue. On reaching the upper lake, I was not weary, and I watched the lake's overflow, white water as they say of rapids and cascades, out of that pure tarn in its vast basin of rock. Down at the Chalet again, I ate hungrily the late breakfast. Asking for marmalade, I was told that there was none. "Oh, but there was a fresh bottle on the table last night." "It's all gone," said the one waiter. "Surely there is a scraping left," I argued. He brought the unwashed bottle as bare as a spoon could make it, and the circumstance was to me very pleasant, adding a touch of homeliness. A few trees grew then on the mossy slope to the water's edge and a spring bubbled half way down. I drank of it from a tin, and watched the rapidly changing colors on the lake and the splendours of all the mountains around about. I followed the damp trail under the trees, noticing the wild flowers on its way, and before coming to the Beehive, I scrambled up that most lovely inclined meadow where velvety forget-me-nots grew. The tourists have destroyed all that bloom:— miserable vandals!

I wonder if any accustomed visitor ever has recaptured the surprised delight of his first view of Lake Louise. Certainly he never forgot. One summer, when the Chalet had grown into a charming hotel, whose rates were within the limits of a very modest competence, my climber spent nine hours on the summit ridge of Mt. Victoria. She started from the Chalet by starlight and went through the Death Trap to Abbot's Pass before the avalanches were loosened, and so up to the ridge, where a bitter wind was blowing. Guests watched the white Mountain through a telescope all that day in some anxiety; for a slip of a girl was in the small climbing company. By night they returned, worn out with the arduous ascent, but thankful for one more summit attained.

Another vivid memory is of streams suddenly in spate from melting glaciers, of pouring rain and a large party starting from the Chalet at Emerald Lake on foot, bound for the first A.C.C. camp on Yoho Pass, that once beautiful flowering alpine meadow beside the pure emerald tarn fed by springs only. Alas! the vandals have done their wasteful work on that garden also. We had gone some twenty minutes on our way when the heavy rain began. Every dry stream-bed was already full and overflowing from the hot morning. Soon the numerous crossings involved rather deep wading, and the ladies were not prepared for that. The tallest of the men were quick and gallant enough to seize them one by one and toss them over the swollen streams, now rushing down the well-gladed, ancient moraines. How old, the thin forest of tall trees bears witness.

By the time we reached the spiral trail leading up the steep hill to Yoho Pass, there was a bright sunset, and shortly moonlight and rolling cumulus. A drenched and hungry and happy company arrived for late supper. Supper, did I say? A banquet, such as Jim Pong, the famous chef of early alpine camps, loved to prepare. Jim fed climbers sumptuously every day—doughnuts, tea biscuits, plum pudding and hard sauce, such toast and bacon as you never tasted at home, and always a tempting menu on the dining tables in the fly tent. Jim was, to boot, a shrewd and witty Chinaman with a flare for jokes. Compelled to guard his kitchen utensils, he would say to one borrowing a kettle of hot water for shaving: "Bling back tomorrow morning. Next spring, too late."

Dreams of old camps and trail-riding or walking would fill a book, and memories of many

a mountain pilgrim from here and there in the world. There was old General X., whose active life had been spent in the Orient, who knew big game and mountains, and who had tales to tell. His luggage had gone astray and he was content to linger at Glacier House until it happened to turn up. A mountaineer would divert him as he sat with the inevitable glass beside him. Would you like to see his tattooed chest? No, we would not, nor his shins and tattooed back either. Finally, the luggage came and our new friend went on to Lake Louise, where we found him later with dinner dress and all, but indignant over a too hot bath that sent him on to Banff. Letters followed. "A delicious tepid bath here. Was it an enamelled Maori pipe I promised you? Please send your photograph and address." A second request came from Banff and another from the Chateau Frontenac. "I hope this may find you. I have lost your address. Send it to the Army and Navy Club, London." Finally, from the Carpathians where, barring a French woman, he was the only non-Hungarian in the "throng of young Countesses and Counts, and I don't speak the awful language. . . . Wolves look in at the windows. I shall go down to St. Moritz via Venice and Lake Como. . . . I was asked to a chamois shoot. How would you enjoy chamois shooting? Have you made any more great ascents? You have a fine Club House at Banff. The two or three Maori pipes never arrived. But I am sending you from here a Roumanian peasant's blouse. When washed, it is snow white, warm, and will do for skating." And that was the last word from the old soldier and hunter and wanderer. I hope that a pleasant time in awaiting him watching winter sports in a happy hunting ground. General X.'s name vanished some years ago from "Who's Who," where I learned that he was born in 1835, that his military career was distinguished, and that he had killed the largest elephant in Travancore, which had killed over thirty people.

The Surveyor as a Mountaineer

G. K.

To a normal man any high place is an invitation. The instinct to climb is seemingly born in him. It is not necessary to make any trite reference to our Simian ancestors, or the forgotten ages of the tree dwellers. The fact remains, however, that before he can walk, a child can and will climb. Many were the thrilling adventures we had on the backs of kitchen chairs, and many the painful "crash" ere we learned judgment and discretion in these infantile ascents. With the donning of trousers we graduated to the outdoor school and horrified our poor mothers with exploits in trees and on stone walls, as we gave vent to this implanted instinct to climb. Then ensued an age when, conscious of immense dignity, we refrained from such childish amusements. No youth wishes to make an exhibition of himself in a tree. If he must needs go up, he will cast about for a ladder, a stair, or an elevator by which the ascent may be made decently and in order. But the climbing instinct is by no means dead; it is merely repressed, and if later on circumstances permit it will suddenly reassert itself, and the youngster, now a man grown, will "lift up his eyes to the hills" and turn to unconquered heights. Of course not all men can become mountaineers. Some, to use a phrase, have no "head." In some the spirit is willing but the flesh is weak, or there is too much of it. Still others lack "the will to conquer," which may be simply a polite way of saying they are too indolent to face the strain of a climb. Indeed, among the great majority of men the brave instinct which draws them to the peaks gradually dies. It is denied and repressed until it ceases to speak, and the men who once felt the summons of the hills are content to look at them from afar and let others do the climbing. It remains true, however, that many of the finest exploits of skill and

courage have been done among the mountains. There, where man has most reason to know his own insignificance and weakness in the face of silent immensities and implacable forces, he has shown the qualities of heart and mind by which through the ages he has conquered. A few years ago the world thrilled at the story of that splendid adventure against the monarch of all the peaks, Mount Everest. It was a defeat. Mount Everest is still inviolate, but who will deny that those were victorious spirits who died on its lonely heights, or left off the battle with its legions of storm and cold with the resolve "we shall come again"?

The calculating and practical man of the world has little use for the exploits of the mountaineer. He labels the whole business a waste of time and money and strength. He is grateful to Ruskin for the phrase about "treating the everlasting hills as mere gymnasia," but, after all, the world owes relatively little to its practical men, whereas great is its debt to its adventurers, to those daring souls who, with little to win and all to lose, yet brave the unseen and the unknown for no other reason than that it is in them so to venture themselves. It will be an ill day for the race if ever the spirit which leads men to gamble with death upon ice-bound peaks, or contest with the unleashed storm upon the seas, or thrust their way through some strange land, should die in our midst. As one witness to the presence among our own people of that splendid spirit, we have the epic of Mount Logan, the story of the ascent of the mightiest peak in this Dominion. In June, 1925, while the citizens of this country went about their daily tasks, far to the north in an unexplored corner of the Yukon, six men, cut off from human aid, separated from all civilization by one hundred miles of glacier and river, took the challenge of the great mountain, met with undismayed courage its assaults of storm and cold, and eventually stood victorious upon the peak. It would be a strangely unresponsive heart which could read that record of courage and endurance without being moved to salute the spirit which drove these men through forty-four days of toil and peril.

It is not difficult to make out a case for the skill and daring of the mountaineer, be he professional or amateur; his exploits gather fame and secure for him a name among men. Nor does it detract from their deserved recognition to remark that such mountaineers set out on their adventures for the sheer joy of pitting their strength against the defiance of the peaks. They do it, so to speak, for the sport. But there are, in Canada, a company of obscure, and to us nameless men, who are mountaineers, not by choice, but in the way of duty. These are the men of our Government Service—Geodetic, Topographical and Geological. It is safe to say that in the course of the year these men have scaled more peaks and conquered more difficulties than all the alpine expeditions which ever set out to seek the thrill of a first ascent. They have done it without notice. No eager reporter has ever chronicled their exploits. The accounts of their deeds, couched in bald and unemotional prose, lie hidden in dreary government files "unhonoured and unsung." Yet, did we have the reading of these diaries of the parties which every autumn come drifting in with the snow from untravelled corners and waste spaces, we would learn of things to give us a new pride in the surveyors of Canada.

Every year the Department of the Interior issues new maps of hitherto unexplored country. There you have before you the course of rivers, the heights of land, the contours of the ranges.

The face of the land is recorded—but what you do not see and cannot detect on those coloured squares is the story of the toil and the daring which went to the making of that clear and accurate engraving. Even maps, common things to be had for the asking, are in a deep sense "bought with a price." And that price is paid in strength of body and through many hazards by the men of our surveys.

The surveyor as a mountaineer is in a sense a totally different type of climber from the

alpinist who regards the peaks as opportunity for adventure. He is not out for glory but for business, and he proposes to accomplish that business with a minimum of effort and by the easiest route. The alpinist, on the other hand, works on the principle that you can make a stiff climb out of almost any mountain. He is not primarily concerned with getting to the top—his chief interest is the route. There is no glory and little thrill in plodding tamely to the summit of a mountain, but if you have an eye for a country and the true climber's instinct you can transform a simple ascent into a real achievement. You can hang deliriously from a rock wall or cut precarious steps across an ice face; you may jeopardize life in a couloir or toil prodigiously on an arête, while the surveyor cautiously and ingloriously ascends by a back way. All of which the surveyor frankly admits. He has neither time nor taste for "stunts." He is indeed not interested in mountaineering per se, but he proposes to conquer that peak, and in ninety-nine cases out of a hundred he does it without guides and with a pack that would make the regular mountaineer sick. Week in and week out he is blazing new trails across untravelled country. He takes rivers in a stride. With Napoleon, he says "there shall be no Alps," and there are none, that is to say, they are crossed.

The amount of climbing done by a surveyor in the Rockies is almost incredible. Thirty-five thousand feet (35,000) in a single week is not unusual. That figure may beget skepticism until one remembers that it does not mean an average ascent of five thousand feet (5,000) a day for seven days, but two thousand five hundred feet (2,500) a day. A climb is never complete until one is down again, and climbing down is harder work than going up, if one is weighted with a pack. The surveyor, therefore, who does two thousand five hundred feet (2,500) to get to his work has literally climbed five thousand feet (5,000) before he is back in camp. During the summer of 1928, one party in Jasper Park climbed eighty-nine peaks in the course of its duties. Of these, twelve were over ten thousand feet (10,000) above sea level, including Mount Nigel (10,525 feet) and Mount Sunwapta (10,865 feet). Thirty-six other peaks were over nine thousand feet (9,000). In that summary alone lie records of mountaineering achievements which might fill many volumes of an Alpine Journal. Only those who have been in the mountains and have actually climbed can realize the very great skill and daring of these men, who year after year have faced vast ranges and left upon their peaks tiny cairns of rock to mark their stations. Every such cairn is a symbol of conquest. For the most part they have been bloodless victories. The casualties among surveyors have been astonishingly few. During the past thirty years only two such lives have been lost in Canada on the heights. That in itself is a tribute to the skill of these mountaineers—the more so when one considers that seldom has a party been beaten by a peak. Somehow they have got up—if not at a first attempt, then at a second or third. Impelled by a high sense of duty and by a real devotion to the work they have planted their flags on snowfields and precipices and from these high eyries have plotted their quadrangles and made possible the maps we purchase for a few cents.

It is a great story—this of the men who are mountaineers, not by choice but by duty. It includes hairbreadth escapes; it tells of desperate battles with cold and storm, of avalanches and fathomless crevasses, of men lost in night and fog; and throughout, it is a record of work well done and of the supremacy of character. The list of those who have thus served our country is a long and honourable one. But even among those who deserve a recognition they have never received, there are names which stand out conspicuously. No government in the world has had in its service a braver or more skilled company of men than that made up of such as the late J. J. McArthur, whose name is forever identified with the International Boundary Line; A. O. Wheeler, esteemed among Canadian climbers, founder of the Alpine Club and known throughout Canada for his work on the British Columbia-Alberta Boundary; M. P. Bridgland, one of the best known

and most experienced men in the Government Service, whose work on provincial boundaries has involved an immense amount of climbing; R. D. McCaw, Herbert Mussell and A. J. Campbell, a trio of indomitable climbers, who during the past twenty years have conquered innumerable peaks from the Selkirks to the Yukon; Tom Riley, the name of a man unknown to the public, but who during a long service has done heroic climbing and invaluable work; H. F. Lambart, conqueror of the great Natazhat Range, whose ice-bound peaks rise to thirteen thousand four hundred and forty feet (13,440) and more recently known to the Dominion as joint leader of the famous Mount Logan expedition. Over against the mention of these men might be set words honoured in the World War "for gallantry and conspicuous devotion to duty." But behind them stand the nameless ones, who were with them through the years in the labour and in the danger, men equally deserving of their country's recognition. For all they have dared and accomplished their reward in money and fame has been exceedingly small.

It is said that a sailor can never rest content far from the sea. He hears its call. And the mountains too have their mystery and their appeal. There is an enchantment in uplifted places. Mr. N. E. Odell, in writing of the Mount Everest expedition, sets down a paragraph which every man who knows the mountains will understand. Just before he turned back from his fruitless search for his two companions, Mallory and Irving, who never came back, there was a sudden clearing of the clouds and he saw a whole summit, ridge and final peak, unveiled. "It seems," he writes, "to look down with cold indifference on me, and howl derision in wind gusts to my petition to yield up its secret, this mystery of my friends. And yet, as I gazed again, there seemed to be something alluring in that towering presence; I was almost fascinated. I realized no mere mountaineer alone could but be fascinated; that he who approaches close must ever be led on, and oblivious of all obstacles, seek to reach that most sacred and highest peak of all. It seemed that my friends must have been thus enchanted also; for why else should they tarry? He who approaches close must ever be led on." Our surveyors know the truth of that. And though there comes a day when they go no more to the long trail, yet do they still feel the call of the peaks, the vast spaces and the silences, and remember, not without pride, that they also have been mountaineers.

Mounts Brown and Hooker

By Arthur O. Wheeler

In the 1926 and 1927 issue of the Canadian Alpine Journal appears an article entitled "The Centenary of David Douglas' ascent of Mount Brown" by Dr. J. Monroe Thorington. It is a collection and classification of the information available concerning Douglas' naming and giving of heights for Mts. Brown and Hooker, situated respectively on opposite sides of the Athabaska Pass, and deals with the records left by Douglas, Thompson and others of the early explorers. It has doubtless involved much study and tracing of old records by Dr. Thorington, and is in itself a valuable record of the information on the subject.

There are, however, several statements made that appear to be questionable and uncalled

for²³ and open to criticism. The statements referred to are as follows:

Page 187—”All that we know definitely is that the names and heights were created in England and that Douglas knowingly falsified in claiming the peaks as the loftiest on the continent.”

With regard to the statement that Douglas “knowingly falsified “ the heights: This seems to be a somewhat dogmatic one. Dr. Thorington refers to Douglas’ transcription of his Journal, “probably late in 1828,” and quotes his reference to Mt. Brown as follows: “This peak, the highest yet known in the Northern Continent of America, I felt a sincere pleasure in naming Mt. Brown . . . etc.” Directly after, Dr. Thorington writes: “Here we have the mountains named for the first time, the height of Mt. Brown given, and the information that they are the highest on the North American Continent.”

In making this statement the fact that Douglas said “the highest yet known,” not unlikely had reference to his own ascent and naming of the mountain.

With regard to the error in altitude, Dr. Thorington points out David Thompson’s incorrect determination of 11,000 ft. for the altitude of the summit of Athabaska Pass, which very probably had to do with Douglas’ error in altitude for Mts. Brown and Hooker. To say that he “knowingly falsified” the heights seems to be going it rather strong. Also, “that the names and heights were created in England” seems to convey the reflection that England had something to do with it. It is natural to suppose that Douglas’ deductions would be compiled from his field-notes at the place of his residence.

Further on, Dr. Thorington casts doubt upon Douglas’ statement that he made the ascent of Mt. Brown. This doubt must naturally be surmise, and would be no more credible than Douglas’ statement that he did. The writer of this note has climbed Mt. Brown twice and has located the Ermatinger camping place as nearly as is possible from the description given of it. He has no hesitation in saying that it would have been quite possible to ascend Mt. Brown from such camping ground in five hours, the time stated.

Page 188—”The Survey (Interprovincial Boundary) decision and recommendation for Mt. Hooker is far-fetched, and is not helped by the fact that it was made at a time when the Commission was ignorant of the existence of Douglas’ field journal.”

With reference to this statement by Dr. Thorington concerning the Interprovincial Boundary Commission’s decision and recommendation for the location of Mt. Hooker, it may be said that the writer was the Commissioner in charge of the mapping of the mountain area along the portion of the Great Divide which constitutes the boundary between the Provinces of Alberta and British Columbia. With Douglas’ description before him, from the summit of Mt. Brown, he made every possible endeavour to locate Douglas’ Mt. Hooker, and the mountain most nearly coinciding with the description is the one so named officially, notwithstanding Dr. Thorington’s statement that the recommendation was far-fetched.

He, Thorington, states that “it seems likely that McGillivray’s Rock is Douglas’ Mt. Hooker.” McGillivray’s Rock is a low hog-back ridge, directly northeast of the summit of the Athabaska Pass, that in no way conforms to Douglas’ description of Mt. Hooker, which he writes

23 From communications which have reached the Editor, it would seem that others share this viewpoint. It must, however, be remarked that we live in a critical age, and the attempt to create the impression that any institution or historical character is above criticism tends to produce the feeling that it is unable to withstand impartial investigation. Not even the characters of the Pilgrim Fathers and of George Washington have been exempted from unfavourable remarks on the part of accredited American historians. A centenary celebration seems to be a highly appropriate occasion for making a balanced estimate of an individual’s achievements from which his character cannot be dissociated.

of as “rising more into a sharp point than Mt. Brown.” The altitude determined for Mt. Brown by the Boundary Commission is 9,156 ft. and for McGillivray’s Ridge 8,800 ft. While the writer is not prepared to say that the ridge is not the Mt. Hooker of Douglas, there is no information to definitely locate it, and the actual position is purely a matter of surmise.

Page 192—Referring to Washington Irving’s preservation of a conversation between David Thompson and James Renwick, in which it is said Thompson stated that one of the mountains in the vicinity was twenty-five thousand ft. high, Dr. Thorington writes: “As this occurred at a dinner in New York, it may have been that Thompson, departing from his custom, had partaken heavily of liquid refreshment.” Since there were two parties to the conversation, the recorder and the recorded, it is presumable that the accusation would apply equally to one as to the other.

A number of Dr. Thorington’s strictures seem to be his own personal views, and he does not appear to make allowance for the mid-winter aspects of unknown mountain solitudes for which there were absolutely no data available, or for the effect of these vast and ice-bound regions upon a solitary traveller. Travelling through them in mid-summer, with available data for position and height ready to hand in the form of reliable government topographical maps, is quite a different thing, furnishing as it does every opportunity for criticism at ease.²⁴ The writer, for one, prefers to make due allowance for the abnormal conditions under which the explorations by these first of all pioneers were made, all the more so because in the absence of definite knowledge much in the records is a matter of conjecture. There are certainly discrepancies that seem inexplicable in the light of latter-day knowledge, but discrepancies as to the magnitude and effect of many natural features and causes are frequently found among the writings of the early explorers, and are not unlikely due to a magnified impression of the dangers and terrors of mountain travel, especially in mid-winter, before such travel became an every day happening to summer tourists.

Mounts Brown and Hooker - A Reply

By J. Monroe Thorington

It is gratifying to the writer that his paper on “The Centenary of David Douglas’ Ascent of Mt. Brown” has elicited discussion, for the legendary heights adjacent to Athabaska Pass have attracted mountaineers to this magnificent playground for more than three decades. One feels sure that Douglas himself would have been more than pleased could he have foreseen such a result.

My answers to Mr. Wheeler’s friendly criticism may be summed up as follows, according to the paragraphs of his discussion:

Par. 3. I am quoted incompletely. In the Canadian Alpine Journal I stated that “Douglas knowingly falsified in claiming the peaks as the loftiest on the continent.” In his field journal Douglas wrote of the view from his attained point: “Nothing, as far as the eye could perceive, but mountains such as I was on, and many higher . . .” If Douglas means that no one had previously climbed higher in North America than himself, he certainly does not say so.

Par. 4. In the Supplemental Notes to my paper I presented the summary of Douglas’ character as given by Hooker in the “Companion to the Botanical Magazine.” It should show Mr. Wheeler

²⁴ There is one aspect of this question to which sufficient attention has, it seems, not been paid. Douglas was an expert botanist. In accepting the height of Athabaska Pass as 11,000 ft., he must have noticed that the tree line in the Canadian Rockies was still higher—over 13,000 ft.—an inexplicable corollary for a man of his knowledge!—Editor.

exactly what Douglas' sojourn in England had to do with the production of the second journal. Douglas could not have made deductions about Mts. Brown and Hooker, and their heights, from his field journal; for neither names nor heights occur in the field journal. Hence my reassertion that "the names and heights were created in England."

Par. 5. As to doubting Douglas' ascent of Mt. Brown, it is probable that he reached some point on the mountain. He may have reached the summit. But when so great a mountaineer as A. L. Mumm expressed similar doubt (C.A.J., vi., p. 90), I shall ask the reader to decide whether this or Mr. Wheeler's opinion is preferable.

Pars. 7 and 8. If Mr. Wheeler had placed himself in Douglas' position in the Ermatinger camp, instead of trying to solve the problem from the summit of Mt. Brown, he would have seen that McGillivray Ridge, from the lower viewpoint, appears as a peak. It looks not unlike Mt. Brown and the similarity would be increased by snow. Furthermore, from this viewpoint, the peak selected by the Boundary Commission to bear the name of Mt. Hooker is practically invisible.

Douglas' field journal makes no mention of any peak at all that could be taken for Mt. Hooker. If credence is to be placed in the second journal we must take Douglas' own words: "A little to the south is one nearly of the same height, rising more into a sharp point, which I named Mt. Hooker . . ." Is it conceivable that he was looking at the Boundary Commission's Mt. Hooker, which rises 1,628 ft. higher than Mt. Brown? Douglas placed Mt. Hooker, on his 1829 map, in the location of McGillivray Ridge, which is more definite than Mr. Wheeler's attachment of the name to another peak.

In my book, "The Glittering Mountains of Canada " (Appendix G), I pointed out that if Douglas' elevations are based upon the incorrect figure (11,000 ft.) for Athabaska Pass then current, something might at least be learned from the difference between his figures for Mts. Brown and Hooker. The actual difference in elevation between Mt. Brown and McGillivray's Rock is 376 ft. (9,156-8,780; Boundary Commission), while the difference between Mt. Brown and Mt. Hooker as given in Douglas' map of 1829 is 300 ft. (16,000-15,700). It is quite evident that Douglas considered his Mt. Hooker to be lower than Mt. Brown. The Boundary Commission's Mt. Hooker simply cannot be brought into line with these figures.

Par. 10. If Mr. Wheeler prefers the thought of David Thompson, a man of precision, soberly making the assertion, or of Renwick, a gentleman of integrity, soberly receiving the statement that "he (Thompson) had discovered the height of one of the mountains to be about twenty-five thousand feet high . . .," I have no objection.²⁵

Finally, while appreciating Mr. Wheeler's discussion, I may say that the views expressed are by no means my personal ones. I have presented the actual documents, making a trip to England for the express purpose of examining the Douglas journals at first hand. These and the other narratives tell their own story, and the choice of interpretations is left to the reader should he prefer a different one from that which I have advanced.

25 Can one take as authoritative a statement that comes at second or third hand? And is it not possible that Washington Irving may have fallen into error?—Editor.

IN MEMORIAM

John Percy Farrar

1857-1929

Captain John Percy Farrar, D.S.O., member of the Alpine Club of Canada since 1912, and a distinguished and highly esteemed member of the Alpine Club, to which he had been elected forty-six years ago, died in London on February 18th in his 72nd year.

Educated for the most part in Switzerland, he afterwards became a South African merchant. From 1895 to 1900 he lived on, or in the neighbourhood of, the Lake of Geneva. During the Boer War he served in the Kaffrarian Rifles and received the D.S.O. His only son was killed in the World War.

Farrar's Alpine career began in 1881, in the Eastern Alps, and continued with few intermissions until the summer of 1928, when he climbed in the St. Gotthard region. In the Alpine Club Register the list of his ascents covers some six pages. His expeditions number over 325.

Among his great ascents were the Weisshorn, three times; Schreckhorn, four times; Wetterhorn, seven times; Meije, four times; Matterhorn, four times, with first descent by the Zmutt arête, 1890; from the Italian hut over Galerie Carrel to the summit, with first descent by the same route to Col Felicite and to the summit again by the ordinary route and descent to Zermatt, 1903; Mont Blanc five times, once by the Brenva route. On the Aiguille Verte, his name is recorded by the Pointe Farrar, attained in 1898.

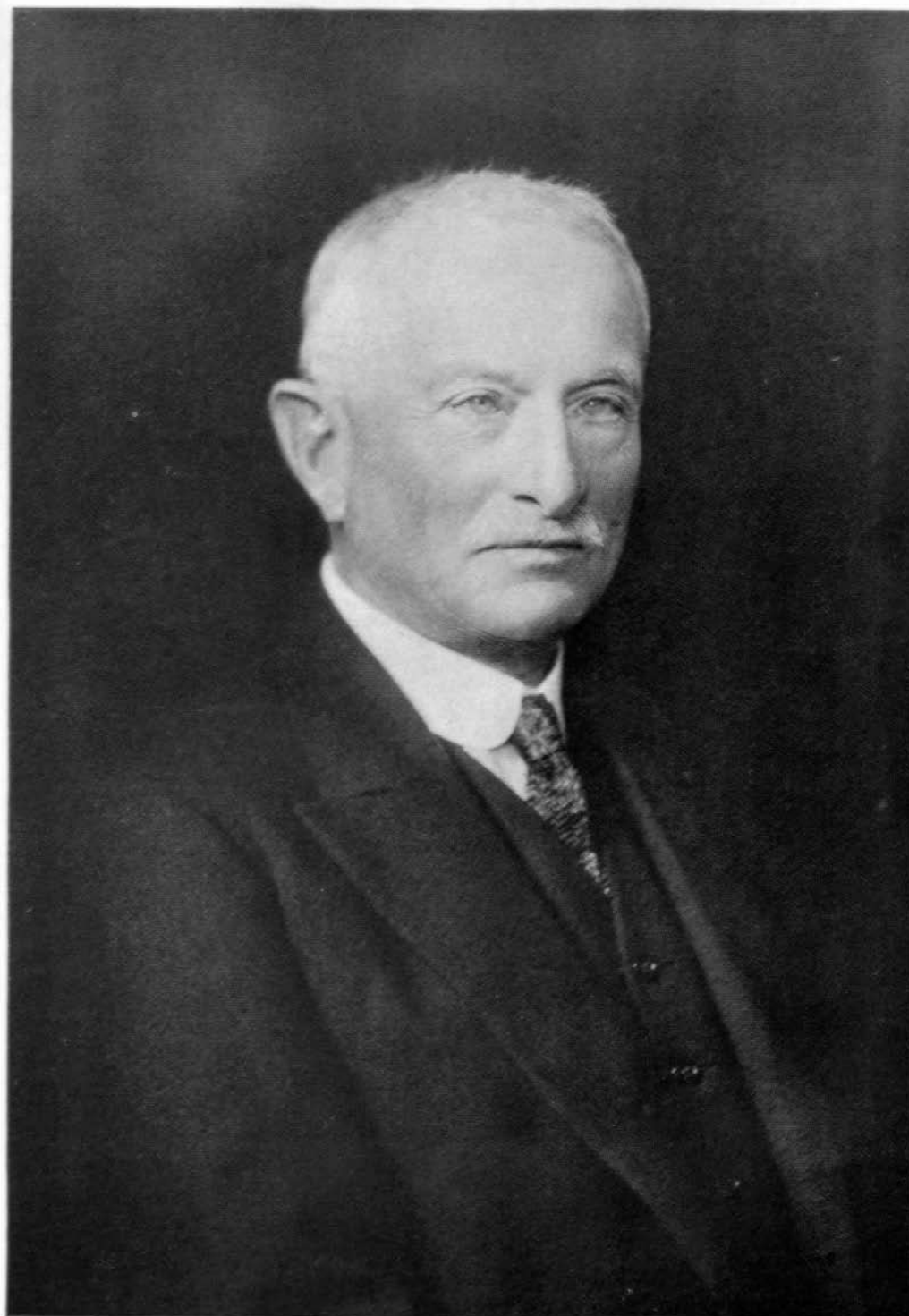
Besides climbing in the Alps, Farrar made ascents in South Africa, Canada and Japan. In 1899 he ascended the final peak of Mount Stephen alone, and in 1911, when revisiting the Rockies, he made a trip over Yellowhead Pass and Moose Pass to Mount Robson.

As late as 1925 he climbed the Cima Tosa, Presanella, Adamello, Ago di Sciora, Piz Badile, Col des Grandes Jorasses to within 100 metres of the crest, and the Grepon, an astonishing record for a man in his 68th year. Last season, when in his 71st year, he ascended Pizzo Rotondo, Basodino, Rheinwaldhorn and Bifertenstock.

Captain Farrar was President of the Alpine Club from 1917 to 1919, Assistant Editor of the Alpine Journal from 1909 to 1919, and Joint Editor, with Yeld, from 1920 to 1926. He had a profound knowledge of alpine history, and some of his monographs, notably those on the Finsteraarhorn and Monte Rosa, are classic. He followed mountaineering on this Continent with the keenest interest and gave practical support to the Mount Logan expedition.

His circle of friends throughout the world was enormous. His personality impressed many who never came into actual contact with him. He was always ready to encourage others, but he seldom spoke of his own great feats. To splendid exhibitions of the art of mountaineering, he added the consummate art of friendship.

J. M. T.



John Percy Farrar

Valere Alfred Fynn

1870 - 1929

Val Fynn, as he was known in alpine circles, a mountaineer of international repute, a big game hunter, an electrical engineer and inventor, a member of the Alpine Club of Canada for 20 years and of most of the leading alpine clubs of the world, died of blood poisoning in St. Louis, U.S.A., on March 20th, in his 59th year. Poisoning is believed to have been caused by two carbuncles on his neck, from which he suffered for several weeks.

Born in Russia, where his father was then engaged in building railways for the Imperial Government, Fynn was educated mainly in Switzerland, where he attended the best technical schools. Later he conducted a prosperous electrical manufacturing business in England until 1908, when he came to the U.S.A., and was employed as consulting engineer for the Wagner Electrical Corporation of St. Louis. He was the inventor of an alternating current motor which, afterwards improved, is now manufactured by the Wagner Company and is known as the Fynn-Weichsel motor.

It is as a mountaineer that we are chiefly interested in his achievements in this place. Of these it is extremely difficult to obtain anything like a complete list. So far as is known, one was never prepared, and he was not in the least boastful over what he had accomplished. Fynn began his mountaineering experiences in Switzerland where he carried out many new climbs, nearly all of them without guides; among them the Aiguille Verte from the Glacier d'Argentiere and the Finsteraarhorn by the northeast face. These new climbs are said to have numbered over fifty.

In the Canadian Rockies, where he was a most interesting and stalwart figure for many years, particularly at Lake Louise, for which place and district he showed a partiality, Fynn was noted not only for his first ascents, but for making new and difficult routes up the big peaks. Even when climbing with the Swiss guides, and his favorite one was Rudolf Aemmer, he would take the initiative and always lead on some part of the climb. He was unusually safe on snow and ice, and in all respects a steady and powerful rock climber. The Swiss guides, indeed, acknowledged him, except perhaps in capacity to resist fatigue, to be as good as one of themselves.

Outstanding among his many Canadian expeditions are the following: First guideless ascent of Mt. Hungabee and first ascents, guideless, of Mt. Ringrose and Glacier Peak from Lake O'Hara, 1909; ascents of Mts. Victoria and Lefroy from Lake Louise and return in one day, 1917; new route up Mt. Temple by northeast and east ridges, and traverse of the whole pinnacled ridge of Mt. Victoria, 1918, which had been accomplished only once previously, and not since; first exploration of the Royal group south of Banff, and first ascent of King George, the highest of the group, in 1919; a new and precarious route up Mt. Victoria by the northeast (Lake Louise) face in 1922. Among his latest feats, the ascent of Sir Donald at Glacier by the west face, 1923, and the guideless first ascent of Mt. Geikie in Tonquin Valley, near Jasper (after several unsuccessful attempts to climb the peak), and on which he took the lead throughout, are the most remarkable.

Both by practical instruction and personal inspiration, Fynn helped and stimulated others to climb. His charming wife accompanied him on some of his expeditions around Lake Louise. He understood the technique of mountaineering to an exceptional degree. He combined skill and self-reliance with a sagacious enthusiasm. His papers in the Alpine Journal and the Canadian Alpine Journal are models of instructive description and lucidity. He was one of the few who saw and emphasized the importance of establishing alpine huts in the Canadian Rockies. He will indeed be greatly missed in Canadian alpine circles, and, in particular, by the guides at Lake Louise, to whom he was peculiarly sympathetic.

J. W. A. H.



Valere Alfred Fynn

Benjamin Frank Seaver

1858 - 1929

Benjamin Frank Seaver, a member of the Alpine Club of Canada since 1907, died at his Brooklyn home on April 26th, 1929. He was the son of Benjamin Francis Seaver and Lucy Jewett Seaver, and a grandson of Benjamin Seaver, Mayor of Boston in 1852, and one of the founders of the Boston Public Library, and of the seventh generation descended from Robert Seaver, who came to Roxbury, Massachusetts, and was made a freeman there on April 18th, 1637. On his mother's side he was grandson of John Jewett and Lucy Ripley Jewett, who was from the "Old Manse" at Concord, Massachusetts.

Before his interest in mountains, he was active in the Alcyone Boat Club of Brooklyn (later merged in the Crescent Club). His climbing began in the White Mountains, followed by many trips in the Catskills. An early member of the American Alpine Club, he was its treasurer for eleven years, and recently elected its Vice-President and chairman of the New York section. He was a member of the Appalachian, Fresh Air, Sierra, Green Mountain, and Adirondack Clubs, also the Club Alpin Français. He had a fine sense of direction. In all our forest wanderings I never knew him to lose his bearings or fail to make his objective.

His interest in our club was shown by his presence at our summer camps for the last twenty years. In every activity he was most companionable and thoughtful for others, always ready to carry packs of some fatigued associate. In an emergency he could produce bandages and first aid—but in Canada his forethought did not require serum for snake-bites, which he cautiously carried in the New Jersey mountains. His disinterested kindness toward others may have been absorbed in part from the thought of the wider mission of the mountains, which temper and refine our atmosphere; and, as Ruskin said, from every storm they are giving of their substance to enrich surrounding lowlands.

His consideration for those in need was shown by a yearly cash remembrance that he, with friends, sent to R. Taugwalder at Zermatt, the guide who in 1908 was crippled by freezing on Mt. Huascarán in South America. He was also one of the A.M.C. committee that raised a fund for those who participated in the casualty to Prof. Stone at Mt. Eon. His own mountaineering library was a rare collection. He leaves a memory of one whose modesty had many rare and high qualities. In the year 1928 his health declined so that he was forced to stay in camp, whence he could view the far-off summits that he knew so well. He received a timely honour in the naming and opening of the "Seaver Hut" built by this Club at Banff in that year. It is hoped that this building, with its associations, while an individual remembrance, may also add to the friendships between the alpinists of both countries.

H. P.

John Henry Cuntz

1866 - 1928

In the death of Capt. John Henry Cuntz, on May 31, 1928, the Alpine Club of Canada has lost not only one of its distinguished members, but one who particularly endeared himself to all those who had the privilege of knowing him intimately.

Known to the engineering world as an inventor in the fields of electric communication



Leonard H. Marvin

B.F. Seaver (extreme left), J.H. Cuntz (extreme right)

by underground cable and of radio, to the educational world as a teacher of science and applied mathematics, and to the community in which he lived as a devoted church worker, it is as the enthusiastic lover of mountains that his many friends in this and other mountaineering clubs will prefer to think of him.

Capt. Cuntz was born in Hoboken, N.J., in 1866. He was a graduate of Rensselaer Polytechnic Institute and of the Stevens Institute, from both of which he received degrees. He was a member of the staff of Thomas A. Edison at the famous Llewellyn Park Laboratory, and afterward for many years of the faculty of Stevens Institute. He served as an officer of the Navy in the Spanish-American war and as an officer in the Signal Corps in the World War. In the latter he organized and, as commanding officer, administered one of the large training schools for Signal Corps officers. His work as an inventor was carried on continuously, except in war time, from 1891 until the time of his death.

In 1910 he was a member of the Mt. McKinley expedition, of which he was meteorologist. They reached the southern base of the main peak after camping 61 days on the ice. It was this party which exposed the fraudulence of the claim of Dr. Cook to have made the first ascent of that peak. Dr. Cuntz also climbed in important expeditions under the auspices of the National Geographical Society.

It was a matter of regret to him that he was not able oftener to attend the annual camps of the Club, and his enforced absence was a loss to the Club.

His last service to the Club was as chairman of the New York section, a position which he relinquished only two months before his death. It was during his chairmanship that the funds were raised, which enabled the New York section to make substantial contributions toward the construction of the Fay Hut and the Banff cabins, including the Seaver cabin.

Dr. Cuntz was a man of great courtesy and singularly charming personality, who the better he was known was the more sincerely admired. He radiated good will, cheerfulness and enthusiasm.

F. N. W.

VARIOUS NOTES

River Sources in Cariboo Mountains

By W.A. Don Munday

As the result of admittedly incomplete views from Mt. Albreda, Mr. Allen Carpé records in the Canadian Alpine Journal, 1926-27, p. 243, his conclusion that the Canoe River heads in the valley first identified by Professor Holway as that of the McLennan River; also that the source of the latter river is in the Mt. Stanley Baldwin group (formerly Mt. Challenger). Both these conclusions are quite as mistaken as his original conclusions with regard to the sources of the North Thompson and the Raush (Big Shuswap) rivers. He rightly suggests that my wife and I had a commanding view down the McLennan valley from Mt. Sir John Thompson. It left nothing to conjecture, the visibility being excellent.

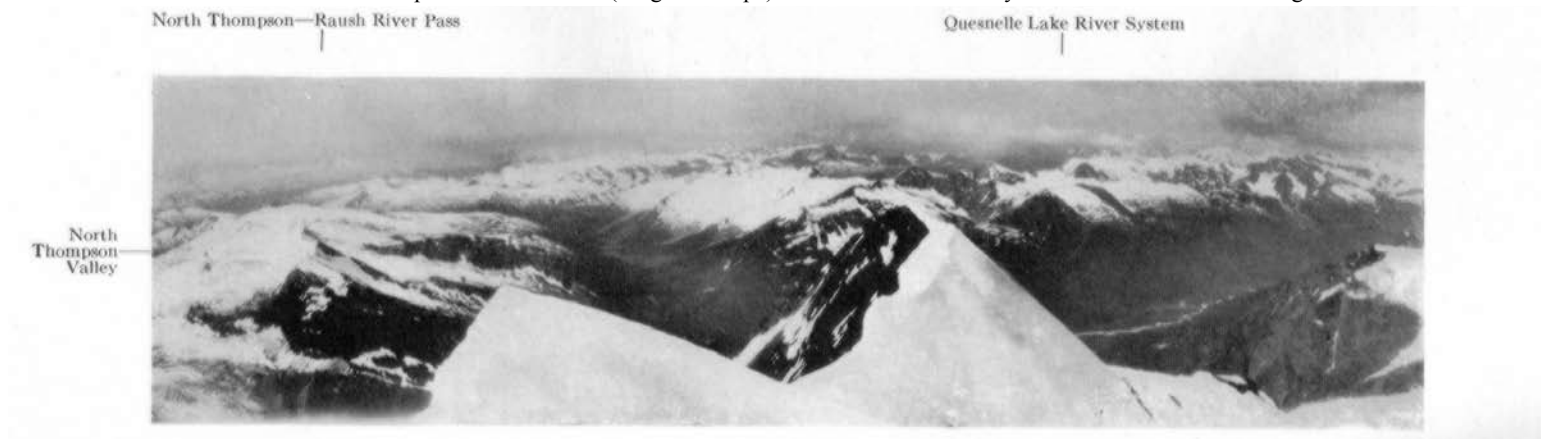
Mr. Carpé's parties have been singularly unfortunate in the matter of commanding viewpoints and visibility conditions in connection with the four chief rivers in this section of the Cariboo Mountains. Figs. 1 and 2, which are views obtained by us from the summit ridge of Mt. Sir John Thompson, clearly reveal the true relation of the mountain, the North Thompson River



Mrs. Don Munday

Panorama From Summit Ridge Of Mount Sir John Thompson, Showing Upper North Thompson Valley.

All The Nearer Slopes Drain To Raush ("Big Shuswap") River. Clearwater Valley In Distance Towards The Right.



Mrs. Don Munday

Panorama From Summit Ridge Of Mount Sir John Thompson, Showing Headwaters Of Raush ("Big Shuswap") River.

Glacier In Right Lower Corner Was Supposed To Be The Main Source Of The North Thompson River

and the Raush River to each other. The actual crest of the North Thompson-Raush pass is not seen. Not far below the pass are shown the meadows through which the diminutive stream winds near the head of the Raush valley (Fig. 2), then there is a sharp descent of at least a thousand ft., the valley becoming V-shaped; here the river is visible in only four places, two being sheer waterfalls. When the river re-appears to the right of the snow and rock shoulder of Thompson it has been swelled greatly by drainage of the glaciers seen in Fig. 1, by others below the line of vision, and by the big northern glacier of Thompson which Mr. Carpé assumed was the source of the North Thompson River when he beheaded the Raush River at the point shown in Fig. 2. (See also my article, *Canadian Alpine Journal*, 1925, p. 129.) Perhaps it might be mentioned for the sake of clarity that names applied by Mr. Carpé have been replaced by the Geographic Board as follows: Mt. David Thompson is Mt. Sir John Thompson; Mt. Challenger is Mt. Stanley Baldwin; Mt. Titan is Mt. Sir Wilfred Laurier; Mt. Kiwa is Mt. Sir John Abbott; Mt. Welcome is Mt. Mackenzie Bowell.

Exception is taken to my interpretation of what constitutes a separate "mountain" in my original reference to ascents of the Carpé-Chamberlain party around Mt. Sir Wilfrid Laurier. By applying their method of subdivision of single massifs to my Mt. Waddington climb in 1928 I might claim the ascent in one day of one 11,000-ft. peak, three 11,500-ft. peaks, a 13,000-ft. one, and the re-ascent of the same four lesser peaks, while a fifth 11,500-ft. peak was traversed twice about 200 ft. below its summit; as this would give nine peaks over 11,000-ft., in 22 hours, perhaps a record for the continent, possibly I might be well advised to dignify as separate mountains some of the Cariboo peaks I previously "lumped" together.

With reference to the first ascent of Mt. Albreda, two resident engineers on construction of what is now the Canadian National Railways, were, and are, convinced that their assistants made this ascent; but as the result of all those concerned having taken part since then in several years of the Great War, neither the men who made the ascent nor their photographs have been located up to the present, so in the meantime Mr. Carpé's party is entitled to the credit of the first recorded ascent.²⁶

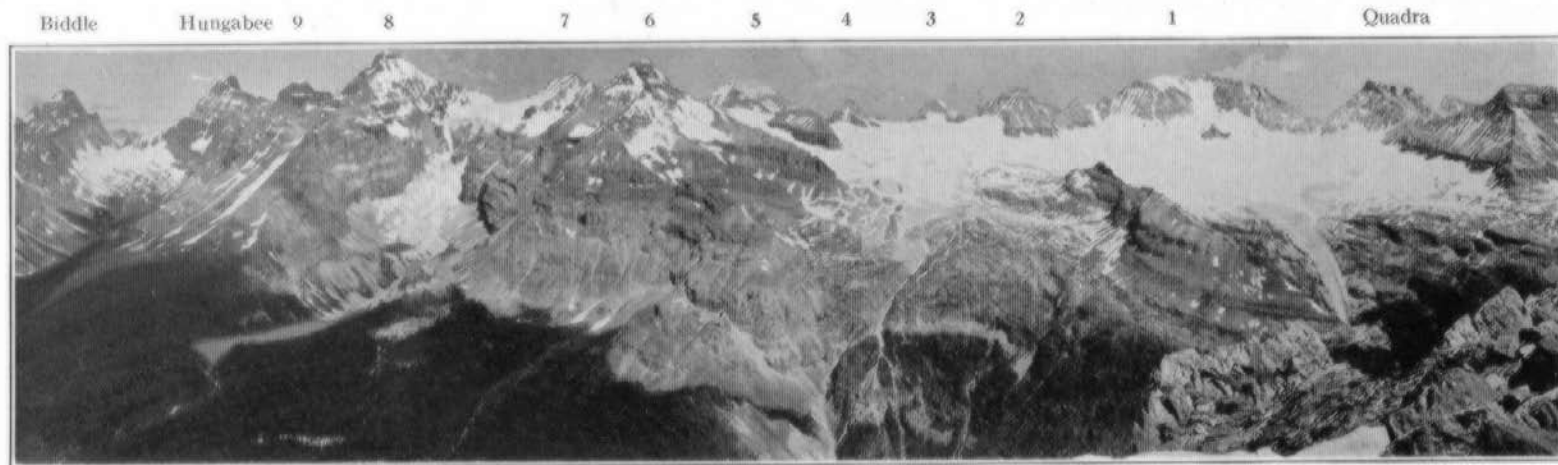
The statement on my sketch map (*C.A.J.*, 1925), "Distance from Pass to Upper Clearwater Lakes approximately 50 miles," is evidently a draughtsman's slip while attempting to indicate the lake within the prescribed limit of the published sheet. The distance is about twenty miles.

The Fay Hut

By J.E. Fisher

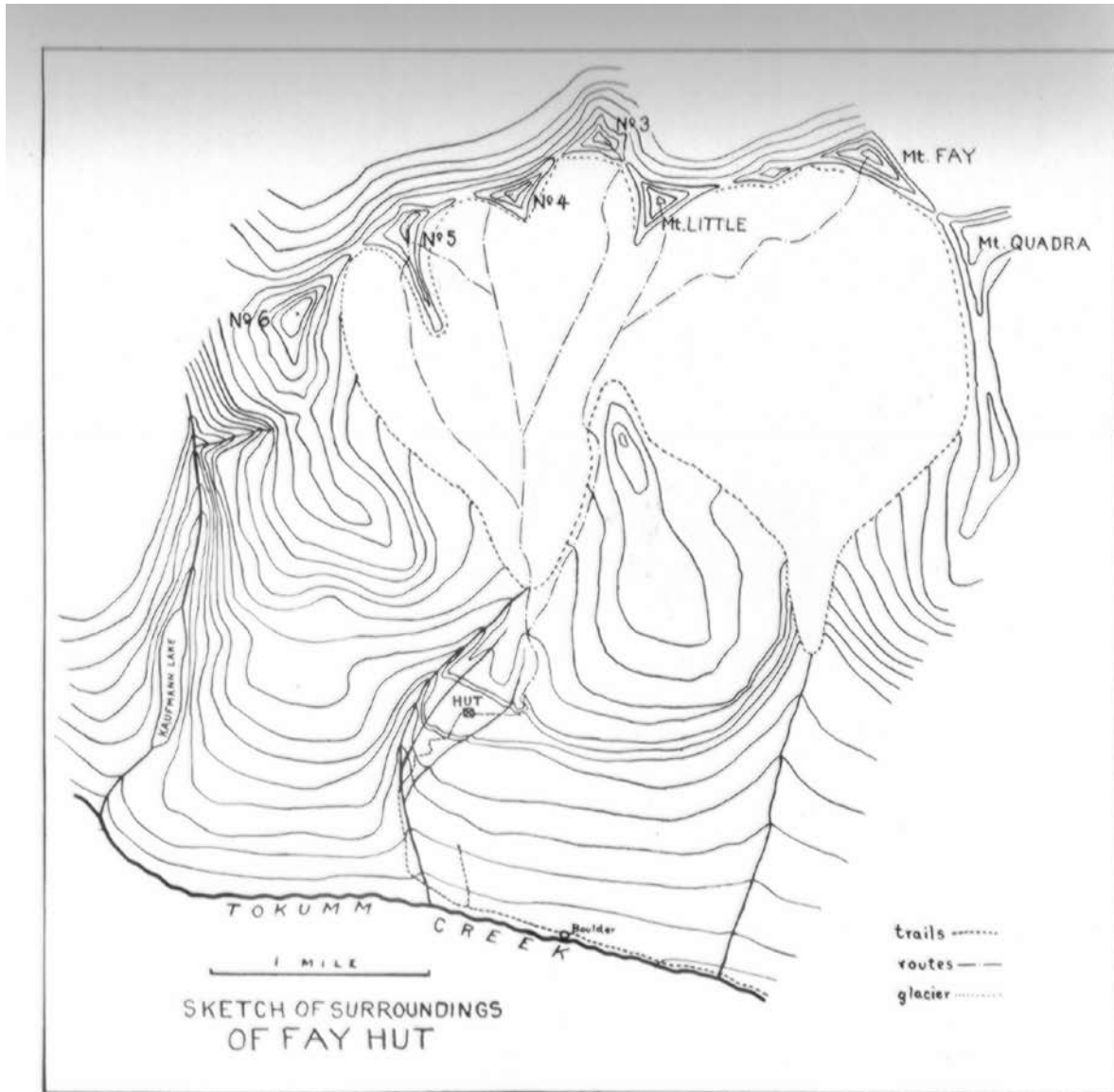
To start out on a fortnight's climbing trip in the Canadian Rockies by automobile, and without tent or blankets, would have sounded ridiculous a few years ago; yet, thanks to the recently completed Fay Hut in Prospector's Valley, and the Vermillion Pass road, that is now possible. It was thus that Cromwell and I set out from the Chateau at Lake Louise one morning last August (1928) in a Studebaker. Marble Canyon, on the Vermillion Pass road, is the nearest point to the Fay Hut reached by automobile, and horses were waiting for us here. The trail through Prospector's Valley is good, and is kept reasonably clear of fallen timber. There are several fords, all of which, at extreme low water, could be negotiated on foot without horses. The scenery is very fine, as there

²⁶ The only kind of ascent of which mountaineering history can take account.—Editor.



Interprovincial Boundary Survey

Panorama of Ten Peaks from Prospectors Peak



The American Alpine Journal

Sketch of Surroundings of Fay Hut

are many open stretches in the valley, and in a very short time one feels as completely separated from civilization as though one were several days' journey from the railroad.

Some five hours after leaving Marble Canyon, the trail becomes rather theoretical, and the bed of the stream offers a good route; an immense boulder on the right (east) of the stream is a landmark to be noted, and it is not difficult to spot it. Once this landmark is passed, keep on the valley bottom, until a small stream flows in from the right (east), and then strike up the open slopes to the east, just beyond this small stream. Be sure you ascend these slopes on the far (north) side of this small stream. Here you can see how the land lies. This small stream comes down over two bands of cliffs, in two waterfalls. The hut is situated on the step between these two cliffs, which converge at either end into one large cliff. Then, following up this slope a few minutes, a well made trail is met, which in half an hour cuts back across the said small stream, and continues up some open slopes to the base of the lower cliff. Our horses were unable to go beyond this stream crossing, as the bed of the stream was very rough. They were sent back to some meadows in the valley below.

The lower cliff can be easily surmounted with packs by two routes, one a little to the left of where the trail ends against the rocks, and the other just to the right. The latter is the preferable route, and the hut will be found not five minutes above the crest of the cliff. It is a most delightful home, provided with cooking utensils, blankets, axe, ample firewood, staple provisions, as well as many canned delicacies, and a good stove. A neat trail leads on a level in three minutes to a crystal stream. The hut has beds, too, but our party seemed too tall to be able to use them, so we chose the floor of the attic. Another party would confer a favor on the hut by bringing up a sheet of asbestos, say three feet square, to set behind the stove, as the dry timbers twice began to smoke.

To emerge from the step on which the hut is built on to the plateau above the upper cliff, and so on to the peaks, follow the trail to the crystal stream (3 minutes), then cut diagonally up the slope (5 minutes) to the cliffs, skirt these to the right for five minutes, and an easy couloir presently opens up through them, which leads to the plateau above, populous with marmots. Any number of routes on the ascent will all converge on to the glacier, whence a number of the peaks that look down on Moraine Lake can be climbed in from two to five hours. Among them are Mount Fay, Mount Little, No. 3, No. 4, No. 5; No. 6 can also be done from here, but Deltaform would seem too far.

In coming down to the hut from above it may be rather difficult to locate it, as its roof is a light green that blends very easily with the surroundings, and the following directions may help:

The Fay glacier is divided into two lobes by a promontory of rock, right opposite Mount Little. It is the western lobe that leads down towards the Fay Hut, so follow down this western lobe of the glacier. When near its snout, cut diagonally to the left (southeast) across the irregular plateau, which runs down to the top of the upper cliffs. The easiest way down these cliffs is the couloir near their extreme left (eastern) end. Actually this couloir, the upper part of which is not very obvious, is about midway between a clear stream of water (not, however, the main drainage of the glacier) and the very extreme eastern end of the cliffs. We built a series of stone men to indicate the route from above.

If this couloir can not be found in misty weather, another route seemed satisfactory, although we did not try it. This is to follow right down the bed of the main drainage stream of the glacier, which cuts a canyon on an even grade from the glacier through the cliff's right (west) end to a point well below the hut, whence one could climb back up to the hut in half an hour. Or the upper cliffs could be descended towards their westerly end, but the couloir at their east end is so simple

that it is well worth looking for, at the expense of some length of time, instead of trying these other possibilities.

The Mountains of New Zealand and Canada

The following entertaining writing is contained in a letter from one of our members to the secretary:—New Zealand is the land of rain and storm. I “did” the famous Milford track and even that tame walk was turned into an adventure by the terrific rains, which caused us to be marooned in a boat shed all one night with only sweet biscuits for our food. When I got back to Mount Cook another girl, Miss Jones, myself and the two Norwegian guides went straight up to the Malte Brun hut with the intention of doing Malte Brun and then turning our attention to Cook itself. The part way road had been washed away by the rain, so we had to walk all the way and it took us two days. No sooner had we got there than it started to snow for a change and continued to do so for three days. Malte Brun is a purely rock climb, so at the end of three days snow it was quite unclimbable, as indeed were even the ice mountains near there. We decided to go back. At the Ball hut, which is half way, Alf, one of the guides, suggested that we might go and have a look at Cook straight away; naturally this fitted in with my ideas absolutely. Unfortunately Arne, the other guide, wanted a long distance call to his sweetheart from the Hermitage, and Miss Jones wanted to go back, too, for a hot bath or something—we had not washed for days and days and days. Alf and I, therefore, went up to the Hearst hut alone the next day and Arne and Miss Jones did not get up there till very late at night. Consequently, next day, or rather at 1 a.m. next morning, Alf and I left to do the great Mount Cook; two other parties of two each who had been waiting in the hut for ten days, left at the same time.

There had been three days’ snow, so that the going was heartbreaking, knee deep a lot of the way; then we encountered a crevasse, over which the snow bridge (used by Miss Gardiner and her guide a fortnight before) had gone, and we wasted two hours in climbing round the ice cliffs to get over. It was not till long after midday that we reached the summit rocks and not till after 2 p.m. that we reached the final ice cap, and there we met the most frightful wind that I have ever struck; it was bitterly cold and terrifically strong. We reached the top at 3.30 p.m. and, needless to say, did not stay there any longer than was necessary. Then there began the most painful descent I can imagine. The pitiless wind blew over that ice ridge with every determination of blowing us over the precipice, and being rather a lightweight, I seldom felt safe in standing upright. On the ice slopes I simply lay down on my side and felt down with my crampons from one ice knick to another; the slope seemed interminable and perpendicular. Darkness fell before we reached the ice cliffs near the broken crevasse, and to make a long story short, it was not till nearly 3 a.m. that we eventually relieved the anxiety of Arne and Miss Jones, who were in the hut—26 hours without resting and practically without eating. If you can’t get a record at one end of the scale it is just as well to get it at the other, and I understand that ours is the longest recorded climb for a party, though Mr. Turner says that when he did it alone he took just over the 26 hours. Miss Gardiner got a record at the proper end, for a woman, at any rate as far as the ascent goes; but she tells me that on the descent they rested a lot and did not do the whole thing in record time, as the papers assert.

Two days later the blizzard passed and Miss Jones, Alf and Arne went up quite safely. Arne always carries his love letters with him, to keep him warm he says, but they were not necessary, for they had perfect weather conditions.

After that we went down to the Hermitage, and it rained solidly for five days. Then Miss

Jones went home and the two guides and I set off to do Sefton, which has not been done for about ten years. The Hermitage was interested enough to waste our time by taking our photos, but not interested enough to give us the porter that we wanted to carry more food for us over the Copland Pass, the result being that we got one misty day, made one mistake in our route and could not have another attempt, for we ran out of food. We climbed a smaller mountain on the way back, and then crept into the Hermitage by the back way, with our tails between our legs. At the Hermitage I found Miss Gardiner in a state of great distress, though in my opinion she had every reason to feel happy; for she, Mr. Porter and Guide Vic had got a virgin peak over 10,000 feet, and had had a first rate accident with no one very much hurt. Vic, who was the person hurt, was climbing again in a little over a week.

After the failure on Sefton we went to have another assault on Malte Brun. Twice we did the stiff rock climb—the best I have ever done—as far as Cheval Ridge, 900 feet from the top, and twice we were driven back by the fierce and bitter wind. Snow and ice climbing in such a wind might have been possible, but rock was out of the question. I have never in my life failed to get anything I wanted half so badly. If Calais was graven on Mary Queen's heart when she died, I am sure that Malte Brun will be graven on mine. I did two more mountains with Alf after that; they were quite nice ones, but when all is said and done, Mount Cook was the only really first rate climb I got in N.Z. Give me Canada any day; the mountains are not, I gather, anywhere near as difficult in Canada; perhaps Robson is, but I did nothing in Canada equal to either Cook or Malte Brun; but the point is that you get decent weather in Canada; it does not rain two days out of three, which is the usual thing in N.Z. The Canadian mountains also are lovelier, not so stupendous or grand, but far more beautiful, for you get the tall dark pine against the snowy peak, the wonderful lakes of opalescent blue, the glorious Alpine meadows, with their sparkling streams and their many coloured flowers; and, lastly, you have an Alpine Club and guides who are thoroughly proficient mountaineers; and all these things are lacking in N.Z. Perhaps I should not say that anything was wanting in the guides, but still you cannot compare a Swiss guide, who has been born and bred to his job, with one who has picked it up in about three years. The Hermitage completely neglects its duty to the mountaineering world and does nothing whatever to train up guides. I read an article by a Swiss mountaineer who has climbed in N.Z. and he suggested that the guides from Lake Louise ought to go to N.Z. during the Canadian winter, and this seems to me an excellent idea.

M. B. Byles.

April 6, 1929.

REVIEWS

The Epic of Mount Everest

By Sir Francis Younghusband, K.C.S.I. New York, Longmans, Green and Co., 1926, pages 319. \$3.00.

The epic story of Mount Everest embraces three Spartan expeditions fully and graphically recorded in three books, "Mount Everest: The Reconnaissance," of 1921, by Colonel Howard-Bury, Mr. Leigh-Mallory, and other members of the first expedition; "The Assault on Mount Everest," in 1922, by General Bruce; and "The Fight for Everest," in 1924, by Colonel Norton. All three are of supreme interest to the true mountaineer. But there are some climbers and many mountain-lovers who cannot lay hands upon these monumental volumes. For such, and for the whole host of lay

readers, there is "The Epic of Mount Everest," an abridgment in one volume at a nominal price, written by Sir Francis Younghusband, one of the begetters of the high enterprise. A notice of it in these columns has been too long delayed. Sir Francis has spent many years of military and political service in India and the countries north, contiguous to Mount Everest. He knows the Himalaya, and he has an understanding sympathy with those peoples and with their culture. He has elsewhere written persuasively of culture as one bond of Empire. Moreover, he writes with simplicity and charm. The conquest of Everest was not a new idea to him when the project was actively planned, though he keeps himself in the background when recording briefly the genesis and growth of that project. Writing the book was a labour of love, the royalties to be added to the Everest fund. It is a well-packed, comprehensive, co-ordinated narrative, an enthralling story for the fireside or for holiday reading.

Nobody interested in mountains and mountaineering doubts that Mount Everest will, ere long, fall to the resolute, intrepid, scientifically prepared climber; and much, very much, has been learned in the science of high climbing from these three expeditions. That an Englishman should be first-foot on the summit of the defiant monarch would be poetic justice. Climbers of every race will not begrudge the conquest to men whose experiments involved colossal, perilous and prolonged struggles both of journey and of ascent. The financing, too, of those three expeditions and of the next one, which time and diplomacy will ensure, has meant giving until it pinches, which is true sacrifice, the ideal of beneficence. May an English climber win to the coveted goal!

As long ago as 1893, General Bruce (then Captain), who had been climbing in the Karakoram Himalaya, suggested this greatest alpine adventure and kept it in his heart. Years later, Lord Curzon, when Governor-General of India, proposed to Mr. Douglas Freshfield that the Royal Geographical Society and the Alpine Club unite and organize an expedition to travel by way of Nepal, which is the nearest route of approach from India, but he tried in vain for permission to go through that forbidden land. After the War, Captain Noel, who, like Sir Francis, had been in Tibet and in the nearer Everest country, revived the idea of an expedition. Happily, Sir Francis was then President of the Royal Geographical Society, and Dr. Norman Collie was President of the Alpine Club. The two societies joined forces, and went forward, the majority in one society interested chiefly in exploration and mapping; all in the other, profoundly interested in the climbing and capture of the Peak.

In clear and concise and vital narrative, Sir Francis tells about the preparation, including the choice of personnel (applications came from nearly the world over), and what like some were who secured a place in the high adventure. In the chapter devoted to preparing for the second expedition, there is a word on the characteristics as man and leader of General Bruce. While a "shrewd, competent man who will not stand the slightest nonsense" when it comes to work and duty, "if he lives to be a hundred he will always be a boy, and as a boy he must always have been a man. "An old boy at both ends of his career, as said W. H. Hutton of Goethe.

You might think when finishing that part devoted to the Reconnaissance, that it must be the best of the book. But no; the epic story of the three expeditions maintains the high level of narrative and description. The nature passages are not many, but they are vivid. They are never lugged in; the same is true of incidental passages on the spiritual aspect of such adventure. For instance, when discussing oxygen or no oxygen in the second expedition, Sir Francis refers to the evidence of non-oxygen climbers who "led the way" and quietly remarks: "There is such a thing as being too much dependent on science and too little dependent on the human spirit. Everest stands for an adventure of the spirit. And things might have gone better if faith in the spirit had been stronger." In another

place he refers to the heavy and cruel weight of the oxygen apparatus: "The faith which could have induced men to do this should have sufficed to remove Everest itself."

The last two expeditions have shown that not vessels of oxygen but acclimatization²⁷ and high camps are indispensable to climbing at such altitudes. Mallory, that heroic and ardent spirit, was a non-oxygen man. A chapter is devoted to him and his companion who were last seen by Odell through the glass, when but 800 feet or so below the summit. A chapter is devoted to Mr. Odell, who has won the admiration of all mountaineers.

Indeed, to read this tale of the most stupendous mountaineering expeditions ever undertaken on this earth is to get acquainted with the choice spirits who proved their mettle on Mount Everest. Every feature of the three expeditions goes into Sir Francis' narrative, and all the actual alpine work on the mountain. It was Major Oliver Wheeler who did the telephotographic work in the Reconnaissance and who discovered the available route up the glacier to the North Ridge, from which point the ascent must be made and the greatest obstacles of which are, not the rocks, but weather and altitude.

The only shortcoming to be found in his fascinating book is the absence of a chronology. But that can be remedied when there is added the record of the fourth and, we trust, successful expedition, and may the present author be the writer of it.

A. L. O. W.

On High Hills: Memories of the Alps

By Geoffrey W. Young E. P. Dutton & Co., New York, 1927, pages 368. \$6.00.

In this book we have more than a mere record of climbs or personal experiences. We get the effect of the mountains, their moods and whims, their majesty and sublimity upon the man who ventures among them. Written by one who is known as a master of his art as well as of literary expression, it shows a keen sense of appreciation of beauty, and color, and moods.

To those who are looking for a guide to the Alps and a description of the great climbs, it will, perhaps, prove disappointing, for the locale changes often abruptly, and no climb is carried through without many digressions to view the scenery or to expatiate upon the mental reaction to the circumstances. It is, however, just this quality which will appeal to those who know the Alps and the great climbs of the four districts of which Mr. Young writes, the Dauphine, Mt. Blanc, the Pennines, and the Oberland. Great is the only word to describe many of the climbs of which Mr. Young writes so smoothly. Certainly the route pushed up the south face of the Taeschhorn in company with V. J. E. Ryan, Franz and Josef Lochmatter and Josef Knubel will live as one of the greatest feats in a long career of big ascents. The chapter which he devotes to it is perhaps one of the most enthralling of the whole book. Certainly, after reading it, one is inclined to echo his closing words, "of the Taeschhorn by the south face there has not been a reascent or a revised version"—and add there probably will not be.

In the same class but perhaps more "legitimate," there is the Grepon by the Mer de Glace face, on which Knubel first showed the extraordinary perfection of axe-climbing which he had developed with the Lochmatters, and then finished a day of the most exhaustive climbing by the ascent to the summit of the crack which now bears his name. The ascent of the Brouillard Ridge in one day from the Quintino Hut and back to Courmayeur will live long among mountaineering annals. None of his times are slow, but this record is an example of the astounding endurance and speed of

27 See note at front of the book.

the man. The description of technical difficulties is admirable, indeed almost marvellous.

The greatest charm of the book is its portrayal of the spirit and comradeship of the hills, and among the hills. From the first longings to see the mountains through to the period of the great climbs admirably conceived and more admirably executed, a keen appreciation of his fellows and his environment is evident. Perhaps no chapters bring out this spirit of companionship more finely than those on "Days with Friends" and "Days with Guides." If the great hills can give us that fine feeling of comradeship which is there described, then there can be no need of other excuse for mountaineering, which many are short-sightedly prone to call a senseless folly.

Although the book is not easy reading and is not meant to be read as a continuous whole, but rather each chapter by itself as a separate essay, yet there is a continuity which is the more striking in that it is the common experience of every climber. The development of technique and confidence from the days around the Belalp through the first attempts on the great peaks, the Weisshorn and the Dent Blanche, and on to the climbs with which Young's name will ever be associated, such as the Grandes Jorasses and Gspaltenhorn (west ridge), to mention only a couple besides those already referred to, is very clearly brought out. This phase appears so naturally that it seems entirely unconscious, and yet it is the same goal that every mountaineer is striving for, each in his own manner.

The book is so admirably written that it would appear captious to criticize the diction; yet it is the unusual which is common. Mr. Young does not hesitate to use the unknown and unfamiliar word; and if there is none, he invents one. Although perhaps here and there the meaning is obscure, in the main this imaginative inventiveness is well directed and the book gains rather than loses by a characteristic which would in many works prove a decided drawback. It is a poet who is in this volume resorting to the medium of prose.

We can safely recommend this as one of the best mountaineering books that has appeared for several years. It stands out as unique. It is one which every mountaineer should have in his library, and peruse again and again. That it will become one of the classics in its field, it is perhaps too early to say, but the reviewer predicts that it will be many years before we see another book which equals or surpasses it.

K. A. H.

Mountain Essays by Famous Climbers

Edited by E. F. Bozman; J. M. Dent & Sons, Limited, London, England, and Toronto, Canada; E. P. Dutton & Co., New York, 1928, pages 254. Fifty cents.

This fascinating little pocket edition is a reprint of selected essays from the Alpine Journal and other sources. The names of the authors, quoted in the order in which the essays are presented, Geoffrey Winthrop Young, Alfred Wills, Leslie Stephen, John Tyndall, Edward Whymper, Sir Martin Conway, A. F. Mummery, J. Archer Thomson, George Leigh Mallory and N. E. Odell, are both very familiar and distinguished in the annals of mountaineering. Opposite the title page is an excellent portrait of Mallory set in a background of peaks, and there are six illustrations.

The volume opens with a note of acknowledgment by the Editor. Then comes a glossary of mountaineering terms which is followed by "A Prelude to Adventure" by the Editor, and the collection closes with a short bibliography of famous mountain writers.

It is difficult to select the outstanding essays where all the writing is first class, indeed almost classical; but the mountaineer who enjoys great rock climbs, described by a master of technique as well as of literary expression, will probably choose G. W. Young's "The Great Side

of the Grepon” as pre-eminent.

Following Sir Alfred Wills’ charming, although rather lengthy description, of the ascent of the Wetterhorn, 1854, from which usually dates the beginning of mountaineering as a sport in the English-speaking world, there comes an account of the first ascent of the Bietschhorn by the author of the “Playground of Europe.” The first ascent of the beautiful ice-ridged Weisshorn is vividly described by the distinguished physicist, who competed unsuccessfully for the first ascent of the Matterhorn, and who relates the reaction of the exploit and of the scenery on his own mind, pages 116, 117.

One can hardly tire of reading Whymper’s account of the first ascent of the Matterhorn. His dramatic description of the triumph and of the terrible disaster on the descent forms one of the most thrilling pages in mountain literature. Probably no book has done more than his “Scrambles in the Alps” to stimulate interest in mountaineering among Englishmen. It is most interesting to read Geoffrey Young’s tribute to it in the essay, “Hills and a Boy.” “With the first reading (of many, for I knew it in the end almost by heart) the horizon shifted. Peaks and skies and great spaces of adventure rolled upward and outward, smashing the walls of a small, eager, self-centered world. Snows and glaciers began to haunt you like a passion.”

Young’s capacity for descriptive language is nowhere better displayed than in the essay, “The Great Side of the Grepon,” taken from his book on “High Hills.” The poet lurks behind the mountaineer. On this climb he was accompanied by H. O. Jones and R. Todd Hunter, both expert rock men, and both subsequently killed on mountains. The guide, Joseph Knubel, led the ascent and was assisted by the guide, Henri Brocherel. For prolonged severity and technical difficulties it was an ascent that has only been equalled by Young’s own ascent of the south side of the Taeschhorn. “We hurled ourselves into a very difficult turning movement, up a sneer of adhesive snow, which prolonged the ice-grin on to the adjoining cheek of bare rock. The effort tuned us up.” Page 190. “Above us, the contracting steepening uprush of russet slabs crested over against a dead blue sky. Below us they sank abysmally to a white dazzle of glaciers, through which the chequered moraine broke darkly, like tidal rock under a shallowing crawl of surf.” Page 196. The most enthralling bit of this tremendous climb, as it was Hearing its final stage, is related with vivid detail on pages 208, 209. It is too long to quote here.

Excellent writing is contained in Sir Martin Conway’s “Ascent of Monte Rosa on a stormy day, and in A. F. Mummery’s “Ghosts on the Matterhorn,” written by a great climber with a sense of humour. The volume closes with the epic of Mount Everest. An article by Leigh Mallory, who was on all three of the expeditions, concerning the second Mount Everest Expedition 1922, taken from the Alpine Journal, well describes the difficulty, the danger and the magnitude of the undertaking.

The final article, also from the Alpine Journal, is by N. E. Odell, the last man to see Mallory and Irvine alive, at some 28,200 feet. Like Mallory, he, too, is a splendid climber, and describes most modestly his own prodigious feat in going up alone to Camp VI, and even beyond, in an attempt to support the lost party. In answer to the question whether the king of all mountains has been climbed, Odell, while admitting there is no direct evidence, still declares his belief that Mallory and Irvine probably succeeded and were overcome on the descent.

This is a book to carry about in one’s knapsack and to dip into from time to time.

J. W. A. H.

Die Vierthausender der Alpen

By Dr. Karl Blodig, 2nd edition, Rudolf Rother, Munich, 1928, pages 356, 16 marks.

The second edition of this book serves as an occasion for calling attention to a unique collection of mountaineering essays. The author set himself the aim, nearly fifty years ago, of conquering all the 4,000 meter peaks of Switzerland; an objective which, as he is well aware, has called forth criticism and earned him the adjective, "vain-glorious." "But my greatest pride," he says, "consisted in always bringing back or returning safely whether from peaks of 4,000 metres or less, with my dear companions," among whom were such British climbers as E. T. Compton, H. O. Jones and G. W. Young, and the great Austrian cragsman, Purtscheller. Nearly all the climbs described were made without guides. The severest criticism his book has undergone, declares the author, is the one unwittingly made by elderly people, who have never stood on a real peak, and who have written to him to say that they read it through at one sitting!! and afterwards felt compelled to take the train up the Jungfrau!!!

Blodig is not one of these who estimates the attractiveness of a climb merely according to its difficulty. Of course he has climbed many peaks in Switzerland and Austria below the 4,000 metre mark of very great difficulty. He relates how when he once suggested to one of the best of climbers to try the Chamonix Aiguilles, his answer was: "They are nothing to me; only the hardest things claim my attention." "A few months later he lay motionless at the foot of what had always been regarded as an unscalable wall."

Beginning with the Zumsteinspitze, 4,573 metres, in 1880, the experiences described in this volume end with the ascent of the Peak Luigi Amedeo, 4,472 metres, in 1911, and cover the ascent of over 65 of the giants, including the Ecrins. Whether the author has achieved his aim to climb all the 4,000 metre peaks of the Alps depends on whether certain "Gratzacken," as he terms them, in the Mont Blanc group, are really independent promontories. Three colored illustrations after E. T. Compton and 48 pages of half-tone pictures add to the attractiveness of the book, replete as it is with interesting incidents, as, for example, the reconnoitre with Mathias Zurbriggen on Monte Rosa, and the value of which is not impaired by the sometimes rather self-conscious tone of the writer.

Besides the entrancing views and the pleasurable bodily activity which mountaineering provides, Dr. Blodig holds that it is the stimulus provided for our inner life which elevates this sport above all others.

J. W. A. H.

Bulletin of the Appalachian Mountain Club, Vol. XXII, No. 4.

Boston, December 1928.

The most important article in this issue of the oldest mountaineering publication of this Continent is the "Three Ridges of Mont Blanc," by the Editor, Prof. R. M. Underhill. It is a lively description of ascents by the Peteret, Brenva and Innominata Ridges and is attractively illustrated. Another interesting, although shorter, mountaineering article is that on "Climbing in the Coolins of Skye," by Elizabeth Knowlton.

"New Rock Routes at Katahdin" by Marjorie Hurd shows what good climbing can be obtained by the members of the Club close at hand. An interesting historical article on this Peak is "The Keep Path and Its Successors," by Myron H. Avery, which is to be continued.

Slighter contributions are represented by "June Skiing in Tucker-man's Ravine" (White

Mts.) and “The Laurentians as a Ski Country.” “Winter Company” by Clark S. Robinson offers some valuable hints. “Various Notes” contain much readable matter, and give further information regarding the activities of members both on this Continent and in Europe. The request of the Committee on Publications that members should send in matter bearing on their alpine expeditions, rock climbs and explorations anywhere, also descriptions of new articles of equipment, is one that may be urged on members of the Alpine Club of Canada.

The American Alpine Journal, Vol. I, No. 1. New York, 1929.

While this issue is in course of being printed, a new mountaineering publication has made its appearance, to which our best wishes are extended. The Publication Committee, consisting of Messrs. Allen Carpé, Howard Palmer and Miss Helen I. Buck, are to be congratulated on the uniform excellence of this first number, the topics of which are, with one notable exception, limited geographically to this Continent.

Following the first article on “Travel and Ascents South of Banff” by J. W. A. Hickson, Norman Clyde gives an attractive and well-illustrated account of the ascents by the Sierra Club in the Canadian Rockies (around Mt. Robson and in the Tonquin Valley) and a short comparison of mountaineering in Canada and the United States. J. E. Johnson’s description of the ascent of Mt. Redoubt obtains an additional interest through his party finding the rucksack belonging to the two climbers who disappeared on this peak in 1927, and whose bodies have not been recovered. The President of the Club, Dr. W. S. Ladd, contributes an instructive article on the Fairweather Mountains, which he visited in 1926 with Mr. Allen Carpé, who is the author of an illuminating map in “Locations at Maligne Lake.” “Climbs from the Fay Hut” by Joel E. Fisher contains most useful data for climbers in the Lake Louise District of the Canadian Rockies.

In addition to the foregoing, important articles are: “New Ascents Near Maligne Lake” by W. R. Hainsworth, “Camps and Climbs in the Whirlpool Mountains” by J. G. Hillhouse and J. Monroe Thorington, and “Ascents in the Purcell Range” by Eaton Cromwell and J. Monroe Thorington, all three admirably illustrated, and with two maps by Thorington. Howard Palmer contributes a freshly written “First Ascent of Nettie L. Mountain” (British Columbia) made with a novice some years ago. An original and stimulating article is M. M. Strumia’s “Moods of the Mountains and Climbers,” in which an attempt is made to generalize on the mental effects produced by the forms and conditions of mountains, and on physiological influences in the appreciation of mountain scenery. The volume constitutes a most auspicious beginning.

The Editor.

OFFICIAL SECTION

Camp of the Lake of the Hanging Glaciers, 1928

The twenty-third Annual Camp of the Club was held in the Valley of Horsethief Creek, a tributary of the Columbia just below the Lake of the Hanging Glaciers, from July 17th to 31st, 1928. While we have camped on more beautiful sites, the neighbourhood was a very interesting one, entirely unknown to almost everyone. A subsidiary camp was pitched on the South Fork of the Creek, which was an excellent basis for climbing, although not a suitable ground for a main camp.



Winifred A. Moffat
Falls Behind Camp



Winifred A. Moffat
Near the Summit of Mt. David Thompson



T.B. Moffat
Lake of Hanging Glaciers With Icebergs



T.B. Moffat
Lake of Hanging Glaciers

The journey from rail was a somewhat lengthy one. Members drove from the Banff Club House by way of the interesting Banff-Windermere road to a base camp pitched at the end of the driving road on Horsethief Creek. There the night was spent, and the next day the journey made into the Main Camp. A half-way camp was used by some members who found the walk too long.

It was the first camp in the history of the Club which did not experience a single storm. The weather was extremely hot and great advantage was taken of bathing opportunities. Mosquitoes were scarce, but bull dog flies appeared. The Camp fires were interesting and were addressed by representatives from Japan, New Zealand, New South Wales and Scotland.

After the members had dispersed, the Camp was occupied by the Trail Riders of the Canadian Rockies, who appreciated Club comforts and opportunities.

The Camp was well attended and everyone seemed especially well pleased. Among the guests were Mr. S. Kitada, of Japan; Mr. H. I. Sinclair, from New Zealand, and Mr. J. A. Parker, of the Alpine Club and of the Scottish Mountaineering Club. Four members of the Mountaineers of Seattle visited us on a journey to spy out the land for an expedition to be made by their Club in 1929.

The following passed the test for active membership:—

July 19—Mt. Thompson:

Miss D. J. Bertram

Miss M. B. Byles

F. Neave

A. Galloway

July 19—"The Dome":

Miss D. Day

Dr. I. B. Hudson

C. S. Mumma

Miss F. Graham

July 20—"The Dome":

R. S. Balch

July 20—Mt. Monica:

A. Lincoln, Jr.

J. A. Corry

July 21—"The Dome":

E. W. Smith

Miss E. R. Peck

July 21—Mt. Thompson:

C. F. Jehlen

July 22—"The Dome":

L. H. Marvin

W. E. Weber

July 23—"The Dome":

Miss E. DesBrisay

Miss F. E. Ingram

Miss L. Bucknam

Miss V. G. Walters

July 23—Mt. Bruce:

- S. Kitada
 July 24—Mt. Thompson:
 Miss A. Iten Miss E. L. Marsh
 Miss M. C. Henry
 July 25—” The Dome “:
 Miss C. A. Lewis
 Miss M. E. Snyder
 Miss E. Beard
 July 26—Mt. Thompson:
 Miss G. N. Gildersleeve
 Miss M. S. Choate
 July 26—” The Dome “:
 D. Watt
 Mrs. D. Watt
 Miss L. B. Warder
 Miss A. Yuill
 Miss M. Muir

One hundred and sixty-eight were placed under canvas; among them representatives of the Alpine Club, England, the Japanese, the French, Swiss, American and German-Austrian Alpine Clubs, the Scottish Mountaineering Club, the B.C. Mountaineering Club, the Appalachian Mountain Club, the Mountaineers, and the Royal Geographical Society.

Those present were drawn from the following places:—

CANADA

British Columbia: Kamloops, Nelson, Sidney, Vancouver, Vernon, Victoria, Wilmer.
 Alberta: Banff, Calgary, Carstairs, Edmonton, Lake Louise.
 Saskatchewan: Moose Jaw, Regina, Saskatoon.
 Manitoba: Winnipeg.
 Ontario: Ottawa, Sault Ste. Marie, Toronto.
 Quebec: Buckingham, Montreal.
 Nova Scotia: Halifax.

ENGLAND

Newcastle, Liverpool

SCOTLAND

Edinburgh, Aberdeen, Fauldhouse, Glasgow

AUSTRALIA

New South Wales, Beecroft.

NEW ZEALAND

Christchurch

JAPAN

UNITED STATES

California: San Francisco.
 Connecticut: Bridgeport, Newtown.
 District of Columbia: Washington.

Massachusetts: Boston, Concord.
Michigan: Detroit.
Minnesota: Minneapolis.
Missouri: St. Louis,
New Jersey: East Orange, Plainfield, Summit
New York: Brooklyn, Flushing, New York, Lawrence, Syracuse.
Illinois: Chicago, Evanston, Marion.
Ohio: Cleveland.
Pennsylvania: Haverford, Philadelphia.
Washington: Everett, Seattle.
Wisconsin: Milwaukee.

Annual Meeting, 1928

The Annual Meeting was held at the Camp of the Lake of the Hanging Glaciers on July 27th, 1928, the President, Dr. F. C. Bell, in the chair.

The Minutes of the previous annual meeting were taken as read, having been printed in the Club Gazette.

The President welcomed the members and, considering the history of the Club during the twenty-one years in which he had known it, was of the opinion that the Club had experienced more successes than failures and today was a strong organization, with bright possibilities for the future. Success in the past had been largely due to the leadership of Mr. Wheeler. So far the method of a Management Committee had proved practical and suitable for continuation.

The reports to be presented showed that the Club was in good financial standing, its activities as shown, not only in Camp, but in the work of the Sections and private expeditions, notably in the conquest of Mt. Waddington, were of value, and the Club House at Banff a great centre of attraction. The Fay Hut above Prospectors' Valley had proved a valuable basis for climbing and it was hoped more climbing huts would be built in the future,

He alluded to the loss by death since the last meeting of several members, more particularly noting that of Mr. Geddes, a much valued officer of the Club.

He congratulated the Club on the election of Mr. Moffat as President and, wished him well. His own interest in the Club would continue unabated.

The Hon. President, Mr. Wheeler, spoke of the history of the Club and congratulated those responsible for the great success of the present Camp.

The Treasurer's Report, already printed and sent to members, was read and confirmed.

The chairman of the Club House committee, Mr. H. W. Allan, presented his report. The Club House had been very successful and the committee was encouraged to build new cabins before the season of 1929. He paid tribute to the untiring work of the members of his committee and the household management of Mrs. Lyall.

Mr. H. E. Sampson reported on the work of the Committee on proposed Amendments to the Constitution. It was proposed to eliminate Associate members, and to alter the system of election to membership. The present method was cumbersome and it was suggested that candidates should be passed on by the Executive Board.

It was proposed to allow more time for the election of Officers and the scrutineers to act two days before the Annual Meeting. Also to provide that the vice-presidents should be appointed one



Winifred A. Moffat
**The Hanging Glaciers From the Big Main
Glacier**



T.B. Moffat
Lake of Hanging Glaciers



Winifred A. Moffat
Mount Dome, in Foreground



Winifred A. Moffat
Mt. Bruce

for the east and one for the west. The quorum for general meetings should be raised to twelve.

These propositions would be finally worked out and presented to members in the form of a ballot in the usual way.

Mr. Moffat gave details of the Fay Hut and of its value. It was evident that a Committee of the Club to deal with the Hut should be formed. It was hoped more would be built in the near future.

Club badges were awarded to: Miss A. M. McKay, Miss R. Rush-worth, Mr. H. P. Thomson, and G. Tollington.

Correspondence was read from Dr. J. Norman Collie, Mr. Howard Palmer, President of the American Alpine Club, and Professor Fay regretting inability to be present and expressing all good wishes for the prosperity of the Club. The National Parks Association sent greetings and appreciation of the work done by the Club.

The President suggested that the question of a memorial to the members who had lost their lives during- the last year should be considered. It was proposed that a cabin be erected on the Club House grounds to be called the Geddes cabin and a memorial tablet placed in the Jasper church in memory of Messrs. Slark and Rutishauser, the funds to be raised by subscription.

Mr. Waterman presented the report of the scrutineers of the ballots for the election of officers. The following were declared elected, there having been no opposition in any case:—

Hon. President:—A. O. Wheeler, Sidney, B.C.

President:—T. B. Moffat, Calgary, Alta.

Vice-Pres., East—A. A. McCoubrey, Winnipeg, Man.

Vice-Pres., West:—H. J. Graves, Vancouver, B.C.

Hon. Secretary:—Col. W. W. Foster, Vancouver, B.C.

Hon. Treas.:—A. S. Sibbald, Saskatoon, Sask.

Hon. Librarian:—A. Calhoun, Calgary, Alta.

Hon. Photographic Sec.:—T. O. A. West, Edmonton, Alta.

Sec.-Treasurer:—S. H. Mitchell, Vancouver, B.C.

The new President, Mr. Moffat, addressed the meeting. He appreciated the honour conferred and would give the Club his best endeavours.

The question of the Camp site for 1929 was then considered. A letter from Mr. Osborne Scott was read suggesting the neighbourhood of Maligne Lake and giving practical details. Mr. McCoubrey urged a camp at Rogers Pass. The matter was discussed at length and it was felt that, other things being equal, it would be well to hold a camp in 1929 which would be easy of access, in contrast to that of 1928. The matter was left to the incoming Executive.

Col. Foster proposed a silent standing vote of sympathy at the loss of such valuable members of the Club as A. L. Mumm, M. D. Geddes, H. Slark and J. H. Cuntz, and also of sympathy with the French Alpine Club at the loss of its President, M. Francisque Regaud.

Votes of thanks were passed to the retiring officers, to Mr. McCoubrey for his labours on the map of the district which had been of such great service to those attending the Camp, to the C.P.R. guides, to the volunteer guides, to the ladies' committee, to Mr. Richardson and his camp staff, who had an especially difficult task at a camp so far away from any base of supplies.

The meeting then adjourned.

Banff Club House, 1928

The House Committee, which was nominated to carry on the work this season, consisted of Miss C. Nickell, Miss M. F. Lavell, Major W. J. S. Walker, Mr. Alex. Calhoun, and Mr. H. W. Allan, all of Calgary, this being the third year of the operation of the Club House under a House Committee.

The Club House opened June 29th and closed September 15th. The attendance at the beginning of the season may warrant in future years the opening date being fixed a little earlier. Weather conditions were good average ones during the season and the attendance was the largest since the inception of the Club House, this attendance being considerably augmented by the fact of the Annual Camp being held at the Lake of the Hanging Glaciers site in the Selkirks, with Banff as the starting point.

The attendance by years:—	
Year	Total Number of Guests
1919	157
1920	357
1921	203
1922	250
1923	180
1924	123
1925	150
1926	294
1927	339
1928	501

During the period before and after Camp, the accommodation was practically entirely reserved for members only, that is, in order that the Club House should do its utmost to take care of the members themselves, accommodation could not be given during those congested periods to friends introduced by members, although at other times there was accommodation for introduced friends of members.

A classification of the registration of those who stayed at the Club House this season is shown below. The members from the more distant points made, as a rule, a more lengthy stay than those coming from a short distance.

British Columbia.....53
 Alberta175

Saskatchewan	35
Manitoba	21
Ontario	17
Quebec	7
Maritime Provinces	6
British Isles	16
British Possessions	8
U.S.A.	159
Denmark	2
Italy	1
Japan	1

An interesting and satisfactory development this year was the noticeable increase in the number of members who made the Club House at Banff their headquarters for expeditions to the peaks in the Banff vicinity, which included two separate climbs of Mount Louis—an expedition for experienced climbers—the parties leaving in the morning and reaching the Club House again at a convenient hour that night. It is recommended that every encouragement and facility be given this primary phase of the Club's activity, as the peaks in the vicinity of the Club headquarters at Banff could be used as an excellent training ground. Well-qualified members of the Club assisted in these expeditions, including Lawrence Grassi, who guided the two parties up Mount Louis.

The financial operating statement shows a profit balance of \$730.23 as at the close of the Club House financial year, November 30th, 1928.

Following a request made at the Annual Meeting in the Little Yoho Camp last year, plans and costs were prepared for permanent wood cabins for the Club House grounds, to replace the existing canvas tent houses which are nearing the end of the natural term of their life. These plans and costs were submitted, as desired, to each section of the Club, the cost of each cabin, equipped, being \$500, and for a double cabin \$750, which turned out to be figures for which they cannot be replaced. The interest aroused was such that a single cabin was promptly donated personally by Dr. Mary Goddard Potter, of New York, which greatly encouraged the project, and this was followed by a donation of a cabin from Past President J. D. Patterson, of Woodstock, Ontario, and a double one by the New York Section of the Club and a double one by the Calgary Section. The cost of two more single cabins was subscribed for by other members at large, with the exception of a balance of \$261.51, which was, as stated above, met out of this year's operating income. These have added very greatly to the comfort of the holiday for the members, many members staying for a longer period than heretofore, and other members making the Club House their headquarters while at Banff or elsewhere in the mountains, whereas they formerly stayed at hotels owing to the tent houses not being suitable for all weathers.

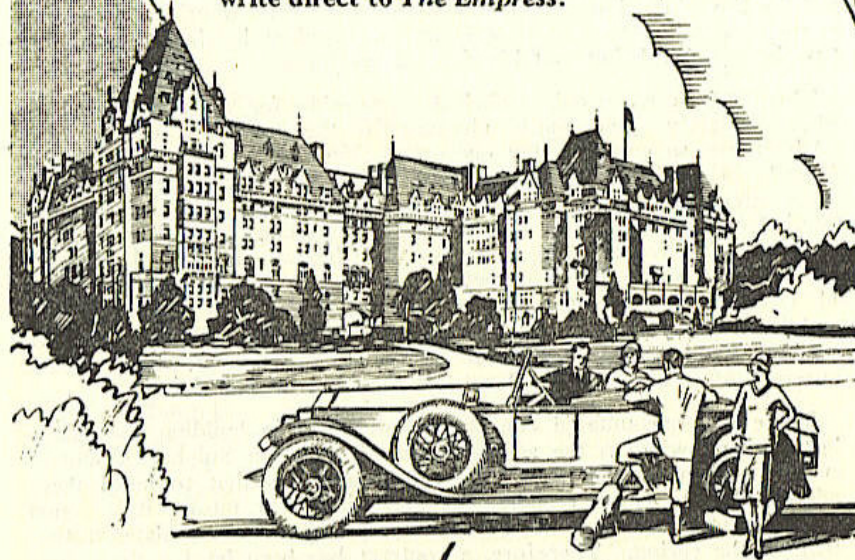
These cabins were only sufficient to provide for a limited number. They evidently gave much pleasure to the members visiting the Club House, so much so that one group, Miss H. I. Buck, Miss E. P. Merrill, Miss M. H. Smith and Miss E. M. Davis, New York, generously offered to donate another, ready next season. The Minneapolis Section of the Club have also generously intimated that they wish to be responsible for a cabin, and also the Club at the Annual Meeting passed a resolution that we erect a Memorial to our late member, Mr. M. D. Geddes, to take the form of a cabin in the Club House grounds and it is also proposed to build one out of the Club House operating surplus, making four additional in all, it being necessary, for the purposes of

economy, to build not less than four at one time.

There was encountered considerable difficulty in building the cabins last spring, owing to the accumulation of snow on Sulphur Mountain at that season of the year. The consequence is that to build these additional four cabins economically and within our means, it is found advisable to build them in the fall before the snow accumulates, rather than in the spring. Therefore, a contract has been let for these four additional cabins to be built this autumn and be ready for the coming spring. The cost of these cabins this year will be \$550 each, equipped, but if built in the spring they would cost \$600 each. They will be completed and ready for occupancy in plenty of time before the coming season.

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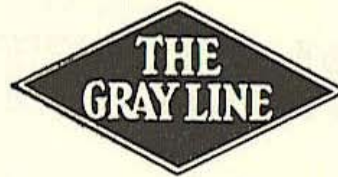
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