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is dedicated
to A. A. McCoubrey*

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EDITED BY
A. A. McCoubrey

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Frontispiece - A. A. McCoubrey

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No. 1

Men, Mountains And Motives¹

By Cyril, G. Wates

“How do you get that way?” This question every mountaineer is called upon to answer from the day that he makes his first climb until wheel chair and crutches take the place of ice-axe and rope. In our youth we tackle the problem with a great deal of enthusiasm, quite confident of our ability to explain to our non-climbing friends the attractions we feel in the heights, and we are more than a little puzzled by their obtuseness and lack of horse sense.

As we grow older, our explanations, so far from getting clearer, are apt to become diffuse and less facile, and when we pass middle age we shall, if we are wise, abandon the attempt altogether, or substitute some jocular remark such as: “ We climb the peaks to keep the cairns in repair! “

Our friends are hardly to be blamed if they decide that there is “something lacking” in the cerebral equipment of all mountaineers, since we disagree so widely among ourselves in our estimation of the motives which take us to the hills. They—our friends—are in the position of the blind men who were examining an elephant. One, who touched a leg, declared that an elephant is like a tree. Another, who handled the trunk, insisted that an elephant is like a snake. A third who ran into the beast’s side ruefully proclaimed that an elephant is exactly like a house. All were partly correct, but none could be said to have given a complete description of the “tidy pachyderm.”

This little parable has its parallel in the problem of mountaineering motives. Each of us is apt to convey to our friends the one prime motive which sends us again and again to the cliffs and couloirs, overlooking the fact that this is only one of many motives. The relationship between the mountain and the mountaineer is like an elaborate tapestry, of which the warp and the woof are a tangle of threads, some bright, some sombre, all significant.

A formal dissertation on Motives would be as dry as Burgess pass on a hot August day, so I have chosen to trace the result of the impact of the mountains upon the psyche of one person, from “childhood to old age.” I have a friend, one with whom I have been on intimate terms for many years, and I have decided that he shall be made the subject of my analysis. I will not name him, for he is still a member of the Club, although no longer active. He is undoubtedly known to many of my readers, and I should not wish to submit him to the slightest embarrassment; so, for the purposes of this essay, he will remain simply “my friend.”

I have picked this man as my victim, not because he was a great mountaineer, but because he was a typical mountaineer. He is one of those for whom, as John Cordelier says, “the ascent of a great peak is the only perfect object upon which his energies can be spent.” He was a careful climber with a flair for technique and a certain gift for imparting his knowledge to others.

I do not intend to describe my friend’s accomplishments; this is not a panegyric or even an “appreciation.” I simply wish to trace the way in which the loom of the mountains has woven the threads of motive into the tapestry of his climbing career. My almost life-long intimacy with this

1. An address delivered at the thirty-fifth Anniversary Banquet of the Calgary section.

man will make my task a comparatively easy one, when a more casual acquaintance might find it difficult or impossible.

My friend's first contact with the mountains came in early boyhood. His home was a large, rambling house on the top of a low hill. I have seen pictures of the place, and can describe it in some detail. The flat hilltop was a great lawn, almost a park. Close to the house was a row of fragrant eucalyptus trees, backed by stiff sago palms. Beyond towered stately breadfruit and mango trees. On the edge of the hill, slender coco palms waved their green fronds in the warm breeze from a sea of that almost incredible sapphire we see in high mountain lakes.

The boy's life there seems to have been very normal and very pleasant. He wandered along trails through dense tropical underbrush. He played under the trees in the park with an occasional companion of his own age. He swam in the calm sea or watched the rollers breaking into foam on the coral reefs. It was not until he turned away from the eternal summer light of the ocean to look inland that he experienced any emotions not common to every boy in his early teens.

Beyond the house lay a narrow, crescent-shaped valley, and on the far side of this depression rose range above range of densely wooded mountains. To the boy these great dim bulks were not merely terra incognita, they were forbidden ground. He might play in the valley and explore it to his heart's content, but to have stepped into the fringe of forest which marked the first slopes of the mountains would have incurred heavy penalties. He watched the sun on the tree tops; he saw the clouds descend and hide the summits; he lay in bed at night and trembled as the fearful tropical thunder echoed amidst the ranges. Gradually the first thread of the tapestry was woven into place—the Mystery of the mountains.

One never-to-be-forgotten day his elder brother took him to a newly established coffee plantation in the hills. I can picture the awe with which he ascended the narrow trail under a canopy of tree-ferns, giving place higher up to mighty ebony and cinnamon trees, draped with flaming orchids. He watched the negroes, with cries of fury, attack and kill a huge snake asleep on a fallen log. He spent a night in a crude shack, his first night in a mountain hut.

One would naturally suppose that after this trip, the mountains would have become commonplace to my friend, but this does not seem to have been the case. Rather, the sense of mystery was deepened by what he had seen, and throughout his life this thread in the tapestry remained unbroken.

The next mountain episode in my friend's life came some years later when, as a young man, he was beginning to earn his own living in a great eastern city. Here I knew him and, from henceforth, can speak of his experiences from personal contact. His daily life was spent amid the stamp of two million feet, the rush of traffic, the roar of elevated railways. He had no realization of what we describe as "The Call of the Hills," yet it was not long before he discovered that they were there, waiting for him. A long journey by street car, a ten-mile tramp, and the city was as far removed as though it had never been. Sunday after Sunday found him in the hills, and I was often a member of the little party. There is no mystery about these gracious, embosomed New England hills. The gentle slopes, the clumps of stately trees, the occasional outcropping of rock, constitute a happy playground, and we all felt that they were our familiar friends. We wandered over them and talked "big" of all that we intended to do with our lives. And as the summer days passed, the hills added a second thread to the tapestry—the Friendliness of the mountains.

One day my friend took Horace Greeley's advice and "went West." He seems to have retained little but a hazy memory of the cities through which he passed on his way, or of the wide expanse of the great plains, but the journey through Colorado left a deep and permanent impression.

He speaks of a great canyon where the railway is supported on steel girders let into the living rock, and he describes his first glimpse of the giants of the Rockies; mighty fourteen thousand-foot peaks, lifting their snowy summits majestically to the heavens. I doubt if the word "mountaineer" would have conveyed anything to him at that time, unless it was a picture of southern feuds and a prototype of Li'l Abner. Those summits were not a place where one might stand; they were a climax of grandeur. So there was added to the tapestry another thread—the Majesty of the peaks.

My friend lived in the West for some years; I think it was either in Idaho or in southern Wyoming. I know that he saw much of the mountains, but his contacts and impressions were of an utterly different nature from anything he had experienced previously. The ranges which border the Snake river have nothing of majesty and little enough of beauty. No one could possibly describe them as friendly. Their essence seems to be complete indifference to Man and all his works.

In the course of his daily life my friend came into contact with these mountains more than once, and without exception these contacts meant hardship, suffering, even hunger. During these years the "Call of the Hills" was completely, silent. His attitude was that of his ancestors who hated and feared the mountains. He meant nothing to them, nor they to him. Yet a new thread was woven into the tapestry. It was the Aloofness of the peaks.

Shortly before the outbreak of the first Great War, my friend came to Canada for the first time. He was often in Edmonton and although, in the intervening years, he has travelled a good deal, our friendship has remained unbroken from that day to this. What induced him to spend his first summer vacation in the mountains it is hard to say. That was when the Grand Trunk Pacific was under construction, and the name of Mount Robson was on everyone's lips. My friend spent ten days camping near the Monarch of the Rockies with two or three companions. I know that this expedition marked a crisis in his life.

That first camp seems to have been very crudely managed. None of the party had the slightest experience in woodcraft. They pitched their tents on a gravel flat close to the railway, in a part of the Fraser valley from which the high peaks were completely invisible. They did a bit of scrambling, without the slightest desire to reach the top of anything. Almost on the last day of their holiday they succeeded in crossing the river on an old log jam (there was a bridge a mile down stream!) and managed to reach Kinney lake.

He did not know it at the time, but his first sight of the great face of Mt. Robson undoubtedly turned my friend from a mountain lover into a mountaineer. That mighty cliff with its crest of shining ice must have produced an upheaval in his very being, but he seems to have been strangely unconscious of it at the time. To trace the change, I have had to turn to a small book of verses on many subjects which he started to write that year. Many of these poems are rather revealing. Yes, we climbers sometimes do woo the muse—I have been known to scribble doggerel myself, as the Club song book bears witness!

I have been fortunate in being able to borrow a copy of this book, and I find the following sonnet which clearly owes its inspiration to that first camping trip:—

“Among the mountains of the Great Divide,
 Where flows the mighty Fraser to the sea,
 A valley lies, in which I love to be;
 Great buttresses rise up on either side
 Whereon, by might of rock and root allied,
 Courageous fir trees cling and stand erect,
 Sweeping from azure sky with cloud-wisps flecked

Down to an earth-bound streamlet, heaven-supplied.
 A crystal streamlet from the eternal heights,
 Torrents of diamonds, pearls and opals blent,
 Flinging a sheaf of rainbow colored lights,
 Rippling through moss with ferns and flowers besprent;
 While here and there a sky-reflecting pool
 Lies like a perfect sapphire, clear and cool.”

Ignoring, on the grounds of poetic licence, the fact that Fraser river at Robson station is many miles from the divide, the verse I have quoted demonstrates one thing very clearly: that my friend had become keenly aware of the beauty of the mountains, not so much in mass as in detail. If there is any one way in which the mountaineer differs from the mountain-lover it is to be found in the climber's intense desire to come into intimate contact with the peaks, to penetrate into their hidden recesses. He is not content to stand afar off and adore.

This verse gives unmistakable evidence of the weaving, not of a single thread but of a hundred, into the tapestry of my friend's life, each one a thread of Beauty.

Every summer for several years there was a repetition of this first elementary camp, always in the same general location. My friend's camping technique improved. He no longer pitched tents on gravel flats. He ventured higher in his scrambles, reaching the rocks and even the ridges. I find no record of any complete ascent, not because he found the climbing too difficult but because he had not yet become conscious that the summit differed in any way from other parts of the mountains. This knowledge was to be gained later. He speaks, however, of one great amphitheatre which he visited several times. He has recorded the impression it made upon him in a sonnet which he calls “The Rocks.”

“Above the region of the forest dense,
 Where voice of murmuring stream has died away,
 By giant hands, in some long bygone day
 Was carved an amphitheatre immense.
 Nature seems waiting breathless in suspense—
 The whistle of a marmot, shrill and clear,
 A friendly ptarmigan that flutters near
 Serve but to make the silence more intense.
 At night the mountain trolls make grim pretense
 Of some wild drama on the valley's edge,
 Surrounded by a ghostly audience
 Crouching on bastion, parapet and ledge;
 While yonder shattered gendarme forms a throne
 Where Silence—Silence—Silence reigns alone.”

It's a bit shivery and fanciful! I've spent a few enforced bivouacs on the cliffs myself, but I have never seen any trolls or similar critters. However, a poet's imagination is apt to run away with him, and in this case my friend has left us his vision of the rocks in one word in the ninth line of the sonnet. This word gives the clue to a thread which wove itself into the tapestry at this time—the Grimness of the mountains.

What caused my friend to join the Alpine Club of Canada is, so far as my own knowledge is concerned, an unsolved mystery. Perhaps my own love of the mountains may have influenced him. Perhaps it was the enthusiasm of other friends who were members of the Club. In any case,

he did join and attended his first Camp. I was there, and was a member of the party with which he shared his first expedition. It was not a climb at all; it was just a picnic trip which took us up some easy cliffs to a wide expanse of alpine meadows, gay with flowers. The incident would hardly be worth recording but for the fact that our leader was that prince of alpine guides, Conrad Kain.

No one could watch Conrad climb without experiencing a sense of pleasure at the utter lack of effort which marked his slightest movement. He seemed to flow up the rocks, as though every foot and handhold had been arranged for his convenience beforehand. We, who were privileged to watch and imitate him, could hardly fail to realize that the mastery of technique is one of the climber's keenest delights. I know that my friend learned that from Conrad. Thenceforth he was a devoted student of the climber's craft. He read exhaustively, and nothing came amiss. G. W. Young, Harold Raeburn, Smythe, Conway, the Badminton Book, the older classical writers—he read and re-read them.

He graduated to Active membership at that Camp, but it is not his climbs in this or the immediately succeeding years which were the theme-song of his early mountaineering career. The new thread in the tapestry might be expressed by the word "Difficulty," if we bear in mind that it was not difficulty as such that intrigued him, but rather the art of making the difficult both easy and safe by perfecting his knowledge of technique.

Some years later my friend spent two weeks at Lake O'Hara. He climbed many of the peaks around that incomparable gem, but it was not the ascents which remain as his sweetest memory, but a lovely valley he visited; at least so I judge from the poem he wrote on the subject. Here it is:—

"The way above the cataract is won,
 Above the turmoil and the roar and rush
 Into a little valley filled with hush,
 A little hanging valley in the sun.
 Meandering rills, like liquid air, which run
 'Twixt mossy banks, to thirsty lips appeal.
 Amid these shadowy vistas man may feel
 That Man and God and Nature are at one.
 The clustering larch and balsam have to face
 A struggle for existence which imparts
 A gallant sturdiness and homely grace
 That makes them very kin to human hearts;
 And one might find among these glades and streams
 'Adventures in Contentment, and dear dreams."

Reading that, I find no difficulty in believing that the loom had woven a new thread into the tapestry—the Sweetness of the hills.

The years came and went, bringing in their wake added experience and a better understanding of the mountains. In the mountaineering sense, my friend was approaching maturity, and he began to feel the insistent demand to pit his steadily improving technique against the difficulties of rocks and ice; to apply his gradually increasing knowledge to the solution of problems to be found only on unclimbed peaks. This is not the place to appraise the standard of his original climbs, nor their importance in alpine history. My sole object is to discover whether the necessity of standing upon

his own feet, instead of simply following and imitating other leaders, brought any marked change in my friend's attitude towards the peaks in general.

I have already spoken of the fact that in the early days around Mt. Robson, my friend was not aware of any special significance in the Summit, as contrasted with any other part of the mountain. Even after making many ascents, he still thought of the top of a mountain simply as the culmination of effort and enjoyment, the spot where the party rested and relaxed, ate a welcome lunch and admired a panorama which it was hopeless to photograph. Perhaps, to some extent his ideas were tinged with the mistaken conception that a mountain is a "worthy opponent," an enemy to be conquered. He had not yet become receptive to the thought of a peak as something which called for co-operation on the part of the climber.

This attitude was changed after he had made one or two original ascents. My friend made what was, to him, an amazing discovery: that the summit of a mountain is the site of certain spiritual experiences not to be found elsewhere. These experiences were not to be explained by any theory, scientific or psychological, but they were nevertheless vividly real.

The intensity of my friend's sensations justifies the supposition that they would be recorded in his book of verses. I can find nothing of the sort except a rather indifferent sonnet of which he does not seem to be particularly proud. I think the explanation of this hiatus is to be discovered in a certain prose passage which he found and learned to appreciate about this time. It was written by one of the world's greatest climbers, a man whose mortal remains rest in the noblest mausoleum on the face of the earth—Mount Everest. This was what George Leigh Mallory had to say on the subject:—

"Is this the summit, crowning the day? How cool and quiet! We're not exultant; but delighted, joyful; soberly astonished . . . Have we vanquished an enemy? None but ourselves. Have we gained success? That word means nothing here. Have we won a kingdom? No . . . and yes. We have achieved an ultimate satisfaction . . . fulfilled a destiny . . . To struggle and to understand—never this last without the other; such is the law . . . We've only been obeying an old law then? Ah! but it's the law . . . and we understand—a little more. So ancient, wise and terrible—and yet kind we see them; with steps for children's feet."

No wonder my friend shrank from putting into new words an experience which had already been so perfectly expressed! Nor is it surprising that, after deep heart-searching, I have failed to find any word with which to summarize the thread which was then woven into the tapestry of his mountain life—a thread of unspeakable mystery without which the whole picture is futile and pointless.

There is more, infinitely more to this vision of the Summit than appears upon the surface. To my friend it was a revelation, a Key to wider and richer experiences. Thread after thread sprang into its appointed place until the picture, blurred and incomplete until now, revealed itself in all its beauty and significance.

First, since one does not make the ascent of great peaks alone, there was the thread of Companionship. Next, for the same reason—the fact that one is never alone on a mountain either physically or spiritually—there was the thread of Sharing. Year after year my friend played upon these threads as though they were the strings of a harp. His greatest joy was to pilot a group of beginners to some dearly-loved vantage point, there to enjoy their reactions to the beauties he knew so well. Perhaps it was a panorama of grim peaks, seen with dramatic suddenness from the top of a pass or ridge. Perhaps it was some hidden, unmapped lake, or a tiny valley, gorgeous with flowers.

We cannot forever live upon the austere heights. Contrary to popular opinion, we are not

forever engaged in perilous ascents. Any one of us could fill a book with anecdotes of the lighter side of mountaineering. My friend took special delight in the ridiculous incidents which crop up during every climbing expedition, and he loved to record them in a limerick or a jingle. For example, I find a verse which commemorates an occasion when he was engaged in exploratory work for the Parks' authorities. Some tourists had arrived with an elaborate outfit, and the packers pitched their camp in the vicinity. My friend remarks:—

There's a party of dudes in camp nearby,
 They dog our footsteps and follow our tracks;
 They have breeches and boots like ours,
 Like us they have rucksacks on their backs.
 They look like us in many respects,
 To every purpose and intent;
 But *they* pay twenty dollars a day,
 While *we* are the guests of the Government!

In such, and similar ways, we find the thread of Fun running through the tapestry.

Indeed, in these happy years my friend came into his own. The mountains and all their glories were his, in a very special sense. He found them kind, but he found them cruel too. He knew what it meant to confront the "Bright Face of Danger"—that strange paradox which is so familiar to every serious climber. He learned what it was to stand by the ashes of a camp fire from which friends had started for the heights, full of joyous anticipation, never to return. Standing there, musing sadly, he recalled the lovely words of Hilton Brown:—

"The mist drops low on crag and corrie,
 The evening settles on scaur and ben,
 Homes the late eagle from his foray,
 The light goes out of the silent glen;
 The night closes, the shadows soften
 On granite mountain and heather hill;
 And the climbing feet that came so often
 Are still, are still,
 And they will not come again."

It is the modern custom to belittle the familiar phrase, "The Eternal Hills," as mere poetic imagery. Any geologist can tell you that the mountains are in a constant state of flux. They are heaved up by mighty forces and then worn down again to a dead level of mediocrity by the slow processes of erosion. Nevertheless, as compared with the brief moment of human life, the hills are everlasting, and as such they seem to have a closer bond with the "unchanging stars" than with anything to be found upon earth.

My friend loved nothing better than to lie at night under the sky when, as he says in one of his poems, "the mountains for companionship draw near," and watch the panorama of the stars. He speaks of one memorable bivouac in the heather on a high pass when, unable to sleep, he kept lonely vigil until dawn, and he recorded his impressions in another sonnet—a verse-form for which he seems to have had a predilection. Here he speaks of:—

"The hidden moon, silvering the distant peaks,"

and tells how he watched through the silent hours:

“Cygnus and Lyra And all the bright procession of the stars,”

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

* * * * *

I have shown this essay to my friend, and have asked him what he thought of it. He replied, with an embarrassed smile: “I think it’s a lot of nonsense!” I find it hard, however, to believe that this is a genuine expression of opinion, for, on turning once more to his little book of verse, I read a poem which bears the simple title of “Climbers.”—

*Whither away, Friends,
When the grey of the dawn lies cold and still
On snow-clad mountain and spruce-clad hill,
And down in the valley, the purple of night
Still waits for the touch of the sun’s first light
To drive it hence?*

To the dizzy heights, Friend;
Scaling the rocks to the névé white
And the snow-ridge, corniced on left and right,
And when sunrise comes in its regal state,
You shall hear us shout from yon far arête
On our upward way.

*What do you seek, Friends?
Know you not that the valleys hold
Wealth of silver and wealth of gold?*
Yes, but the mountains which seem so bare,
Have burden of treasure more rich and rare
Than any you know.

What treasures are these, Friends?
The winds of God are more than wealth,
For they tint the cheek with the glow of health,
And the pulses throbbing in every vein
Give a sense of joy that is almost pain
To the thrilling heart.

*But what of the risks, Friends?
Do ye not crawl with bated breath,
Where every step is a game with death?*
The rotten rock and the sliding snow
Are trials to be overcome in the glow
Of our youth and strength.

What of the goal, Friends?

What of the summit ye strive to reach?

Ah! The climber knows, but he cannot teach;
And he never forgets, though he rarely speaks
Of the boundless sea of snow-clad peaks
That is stretched below.

And wot ye well, Friend,
That whoso the summit doth once attain
Shall never be quite the same again;
Like the aged Rabbi of Levi's race
Who in the flesh beheld God's face,
As the Talmud saith.

What of the Man, Friends?

The soul of the climber may well be known,
For the Mountains have voices which call to their own,
And he who would climb must be true and tried,
For the lives of the many full oft reside
In the hands of one.

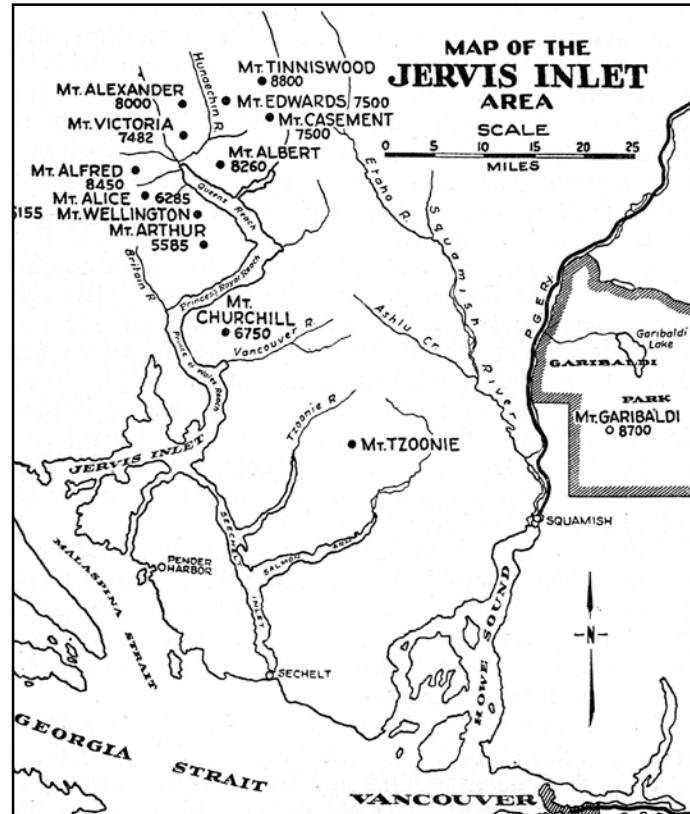
But what of the end, Friends?

Little we reck what the end may be,
But more than the present in life we see;
So give good heed while this truth we tell,
The man who would love the Maker well,
Must love His works.

Mount Tinniswood of Jervis Inlet

By Arthur T. Dalton

On the last day of June in the year 1900, just as the sun was dipping well to the west, Her Majesty Queen Victoria's ships-of-the-line were approaching the southern fjords of the straits of Georgia. Warspite was the flagship. The crews were to take part in the celebration of Dominion Day at Vancouver. It was a great event in those days, this coming of the North Pacific Squadron into Burrard inlet.



But quite unnoticed something else was happening which was also making history. A very small coastal steamer, named Defiance, emerged from Howe sound, the fjord next north to Burrard, and unnoticed passed through the Lions Gate ahead of Warspite. On her deck were two youths of about seventeen years of age. They were tanned and toughened and ragged, but they were jubilant. For ten days they had been in the wilds at the head of Howe sound, and had braved its storms, its cougars, its wolves. And they had seen the sight of a life-time. The 8700-foot pyramid of Mt. Garibaldi had suddenly, before their very eyes, emerged from storm clouds, surplined in snow, dazzlingly glorious in the sunlight. And then in a moment it had vanished. There, at that moment, began mountaineering in the fjords of British Columbia.

In 1907 they led the party which made the first ascent of that peak. And in 1929 Garibaldi National Park became a reality.

Then came the summer of 1929. And another coastal steamer, vastly different from the one of twenty-nine years before, entered Lions Gate. She was inbound from Jervis inlet, the fjord second north of Burrard. Her passengers were still flushed with the sights they had seen in that

uniquely beautiful and wonderful fjord.¹ But three of them had seen something further. At the head of the fjord that afternoon, whilst gazing enthralled at the giant Alfred rising 8450 feet from the waters of the fjord, a passenger had spotted with binoculars a flag flying from the ice-clad peak.

It was the Union Jack that had flown from Garibaldi in 1907, and its bearer was one of the two youths of the old Defiance of 1900.

A first ascent it was, and as the flag broke the breeze from the Pacific, a great peak, dominating the eastern horizon, caught their gaze. "Look at that beauty" they cried in one voice. "Someday we will fly this flag from it." They named it Mt. Tinniswood.

After Alfred, Albert bowed to them, then Alexander, then Victoria, then Wellington—all of the fjord. But Tinniswood "on that glimmering limit far withdrawn escaped, and it looked as if the war of 1939 were going to have it remain so.

Then suddenly, on the lovely fjord day of August 8, 1941, they came, these Defiance men. They were grey-haired now, and too old for this kind of thing, but they were going to go all-out for the last time.

A glance at the chart will show the Hunaechin valley leading off from Queens reach in a due north direction. On the left, or west side, it is dominated by the walls of 7482-foot Victoria and 8000-foot Alexander; and on the right, by the mighty 8260-foot Albert, which rises in parts seemingly vertically for thousands of feet. Through seven miles of this terrain Hunaechin river forces the waters from five glaciers.

At a point approximately five miles from the sea, Mt. Edwards, 7500, squarely plugs the valley, and the river divides, one branch westward behind Alexander, the other eastward around Albert. Mt. Tinniswood rises 8800 feet, about three miles north beyond Edwards.

It can easily be surmised what a grandeur is about this valley, and also what physical effort is required in penetrating its trackless miles. My companion P. Easthope and I strove for three days before we reached Edwards at its head.

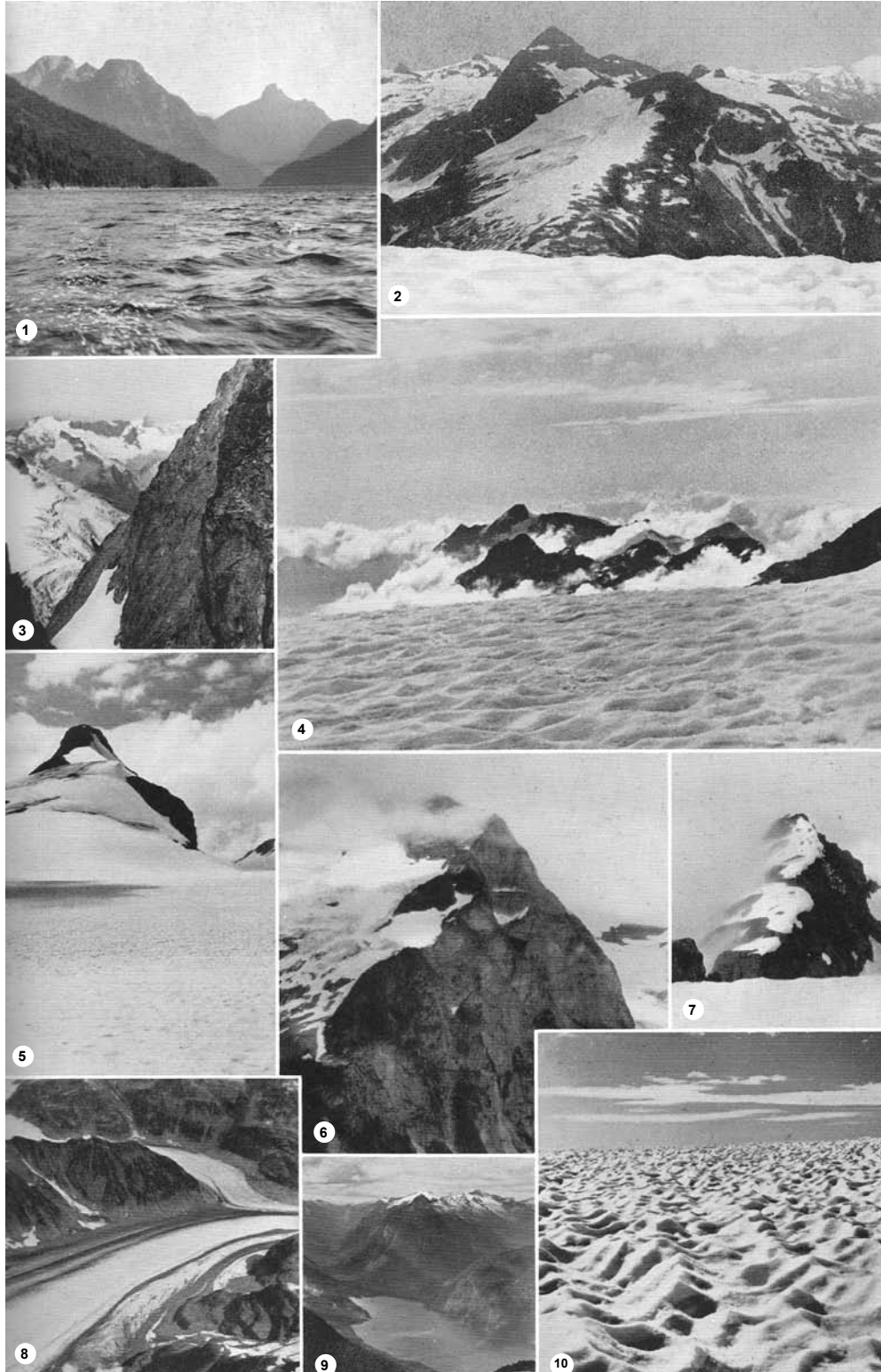
We were now in the crashing gloom of the Edwards canyons. The aneroid showed 800, and we were feeling the effects of this gruelling work with heavy packs on our fifty-eight years. I realized here that the expedition was going to be a test of endurance, and Mt. Tinniswood seemed at times hopelessly far off.

The expedition, which had been in mind for twelve years, assumed four phases: the passage of the Hunaechin, which would be a preliminary test of our powers; the tough ascent of Mt. Edwards of 7500 feet; the crossing of the Tinniswood icefields and glacier; and the final assault on the peak. We had entered the second phase on the fourth day out, considerably battered about, and feeling we had passed the preliminary Hunaechin test with no margin.

The lower walls of Edwards are a problem. Although wooded in parts, they are very precipitous. From adjacent peaks we had mapped our route, and now it worked out most successfully. On the fifth day out, after a great effort, we found ourselves at the 4000-foot level, with the wall problem solved. From here the angle of ascent was easier, and the topography pleasant, with dwarf timber, lots of wild flowers and grand views.

By night-approach of the fifth day, by constant effort, we reached the 6000-foot level, one day late, only to find ourselves in a place impossible for camping. We were on a shattered spur of the mountain, with everything dropping off into a cloud-filled abyss beneath. There was neither water nor wood, and it began to rain. Much depressed, we reluctantly descended again some 500 feet, in semi-darkness to a spot possible for camp.

1. *C.A.J.*, Vol. XXI, p. 148, et seq.



1. Prince of Wales Reach. Mt. Churchill On Right
2. Mt. Tinniswood from Mt. Alexander, About 8 Miles Distant
3. On Eastern Edge of Mt. Tinniswood
4. On the Duane Glacier, Mt. Alfred in Distance
5. Duane Peak from Matthews Glacier
6. Mt. Albert from Hunaechin Valley

7. Mt. Victoria from Mt. Pilaetus
8. Looking Down Into Valley Below North Face of Tinniswood
9. Part of Queens Reach with Hunaechin Valley to Right
10. The Tinniswood Icefield, Elevation 6,000 Feet

Photos A.T. Dalton

The following day broke, with only the higher summits showing above a great sea of clouds, with another ceiling above us of about ten thousand. The scene was very grand and wild beyond description.

At this point we made a timber line depot and cached everything possible, even to the danger point. We had had some minor accidents, the effects of which were slowing us down and we were forced to reduce pack weight. By ten we were well into the no-man's-land of the fast receding glaciers. At eleven we reached ice—the toe of the Dawn glacier. Close to us was the peak of Mt. Edwards, and without much trouble we climbed to its uncairned summit, 7500 feet above sea level.

And now we received the first fruits of all our struggle of the last six days. All our six "Firsts" of that grand Queens reach group were islanded in clouds before us. The scene was a particularly comprehensive panorama, and we distinctly felt the urge to be satisfied with the goodly record that lay before us, and make this ascent of Mt. Edwards our final.

The noble Alfred of 8500, our memorable first ascent of Queens reach topped the scene twenty miles away. The 8300 tri-glaciered Albert came next, with the spired Wellington opposite it across the fjord. The 8000-foot Alexander, lordly and grim, was close to us, and 7482-foot Victoria, the finest rock climb of the group, with 7000-foot Pilaetus beside it. It was with relish that we realized we had built the first cairns on each of these.

Then we turned from this gratifying sight and looked into the hitherto forbidden north beyond. What I saw brought back instantly that first gorgeous glimpse I had had of Garibaldi in 1900. It was a very big, inspiring scene. The clouds were rapidly breaking up and revealing to our gaze a huge icefield of some miles extent. And rising out of it huge, black and not unkind, Mt. Tinniswood, our mountain of the glimmering eastern limit—at last. His walls were bare and very steep and there were east and west arêtes to the summit. The west one was decidedly threatening, but the east, except for three vertical bits, was quite inviting. Here was I, face to face with what was to be the last first ascent of forty-five years of mountaineering; and it was also the mountain named after my father, the pioneer Coast climber who had taken me as a boy to the mountains.

Quite close to it rose the sharp-pointed pyramid Mt. Casement, 7500. And in the icefield before us soared Duane Peak, another beautiful 7500-foot pyramid.

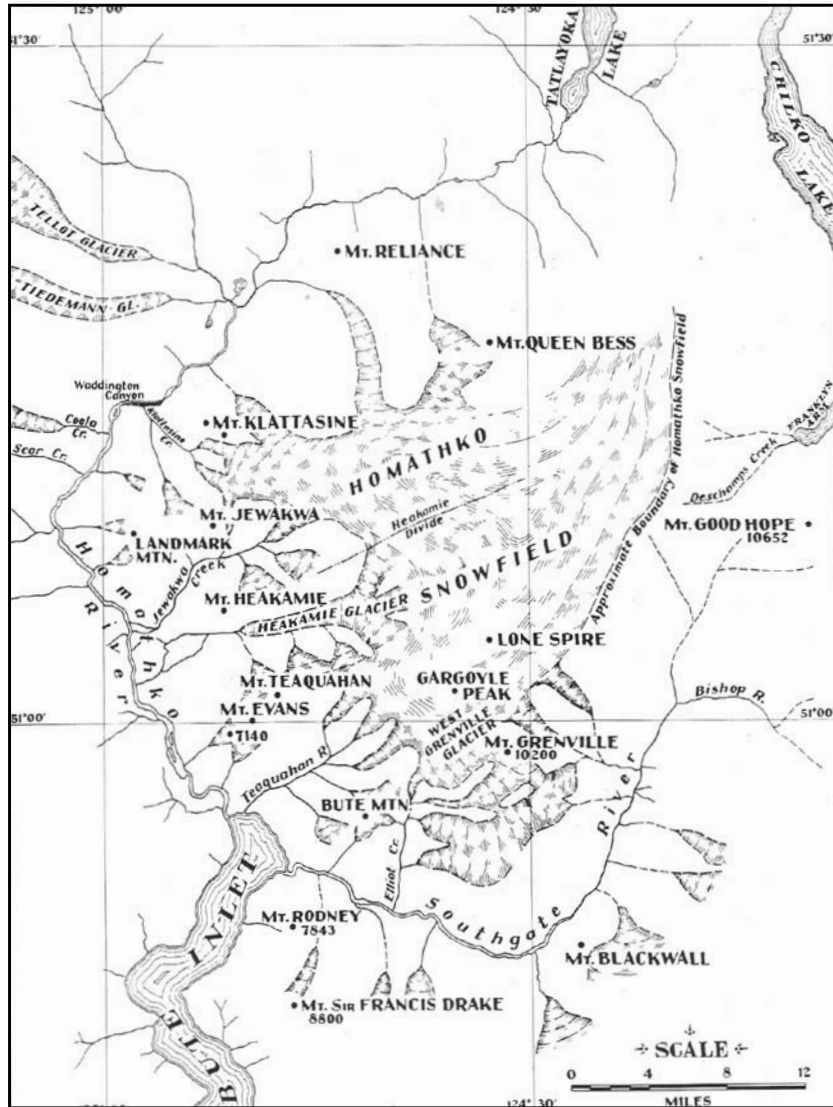
Tinniswood, Casement and Edwards formed a triangle with Duane at its centre of gravity. From this triangle of ideal mountain terrain, everything fell away for 6500 feet into the valleys contiguous to Queens reach.

Of course the inevitable happened. Without a second look we turned our backs on the past; descended to the icefield below, where we had left our packs; shouldered them, and silently headed out across the ice towards Tinniswood. There was something about the great massif that left no choice of action, even if going on in our condition, and with meagre supplies, meant no return. The Indians of the fjord have many and weird legends of these peaks, and had we not returned they would have stolidly shrugged their shoulders in silence.

The surface of the icefield was terrible. Every square yard was a small shell hole of about eighteen inches depth. Three hours we stumbled along with packs, I with a sprained ankle. At about 3.00 p.m. we changed our course and swung around Duane Peak on to Matthews glacier.

At about 4.00 p.m. we struck bare ice, with new snow on it. Then we ran into crevasses and lost our course, to our dismay, because, if the weather should turn bad our very lives would depend upon our compass courses.

At 5.00 p.m. with our vitality unmistakably low, we left Matthews glacier, and began to



Sketch Map of Homathko Snowfield

climb the steep névé towards the east arête, 1500 feet above us. This we reached at a little after 6.00 p.m. And here on a rock ledge at 8000 feet elevation, we made our highest camp. There was a small pocket of water and we used "Trench Fires" to heat our "Concentrated's."

The scene from here at sunset was, of course, the usual utterly indescribable one of such places. The air was not too cold, and the night fine.

Early next morning, the seventh day out, we attacked the arête. We had a clear view of the whole peak. The south face was of formidable two thousand-foot precipices, the north a hanging glacier with bergschrunds and ice-falls.

The arête was the obvious route, although there were bad pitches discernible, three in particular, the last of which just beneath the summit had us guessing. The arête rock was solid but very smooth and offered few hand holds. What ledges there were, generally sloped outward and were often only a few inches wide. Fortunately we had our rubber-soled sneakers with us, so the hazard of nailed boots under the conditions was removed.

The going now became exciting, sometimes along narrow ledges and often across smooth rock as steep as the roof of a house, with nothing between us and a take-off but our rubber shoes.

The first troublesome pitch was tricky, and the second, about half-way up the arête was sufficient to start us worrying about the descent. The last pitch, under the summit, forced us off the arête, on to the precipices of the south face. The aneroid showed 8600. Matthews glacier was 2100 feet below.

We found ourselves on a very steep face, covered with large pieces of loose rock at a critical angle of repose. It was perfectly evident it was all ready to go into space and that one loosened rock would set the whole going. The negotiation of this last bit was evidently the price of success.

In a few places, alarmingly far apart, a piece of solid rock was available by removing loose slabs about it. But it was all so unstable that I am sure a revolver shot would have sent it, with us in it, into space. However, it had to be done. Never have I had climbing so exacting. Slowly, silently, with the Fates looking on, we did it. And at last, wondering why we had been allowed this success, we crawled up into the blue ether of the summit.

Great white woolly clouds were about, and the scene was one of those not transferable into words. How good that it is thus, that each one must win his own way into the delight alone.

Tinniswood is undoubtedly the highest of the district, and showed 8800. The north and east faces seemed un-scaleable. And all about us were great peaks and glaciers innumerable. Jervis inlet was out of sight about twelve miles distant.

We broke the breeze with my forty-five year old Union Jack of nine first ascents. We cried "God Save England," then built a cairn, deposited our record in it and took compass angles to other peaks. And then the last look about, and the descent faced us, with the Fates still looking on.

The rope was useless, as were pitons. It was purely a matter of committal to the kind Providence of God, and of doing our part perfectly. One mistake could cost us our lives. Two hours later, when it was all over, far down the arête we were suddenly brought to a standstill by hearing, away up near the summit, the terrific doom-like sound of tons of rock starting their flight to the glacier below.

On August 18 we reached the fjord, all-in but jubilant. The Alfred commission had been carried out. Seven great mountains, the Queens reach group, had been conquered; and their wonders and their terrors were ours, to hand on to others. And on the glimmering eastern limit of Queens reach far withdrawn, proudly soars a great mountain, Tinniswood, which now knows man.

Beyond Bute Inlet

By W. A. Don Munday

In an inspired moment my wife and I decided to try to climb Mt. Grenville in the Coast mountains. Still inspired, we wired an invitation to join us to Miss Polly Prescott who was climbing in the Rockies.

Phyl (my wife) and I had first sighted Mt. Grenville from Mt. Rodney, 7843 feet, at the head of Bute inlet on a memorable evening in September, 1925, for it led to our first trip to the Mt. Waddington country next year. (*C.A.J.*, 1926).

Mt. Rodney had already been climbed by Capt. R. P. Bishop, B.C.L.S., who fixed the height of Mt. Grenville as 10,200 feet.¹

In 1930 the energetic party composed of Tom Fyles, S. Henderson and A. H. Dalgleish (the latter killed on Mt. Waddington) hoped to climb Mt. Grenville, known to them as "Cloud-Soarer." An injury to Henderson prevented an attempt. (*C.A.J.*, 1930, pp. 92-98).

With Polly, we started in high hopes from Vancouver in our little gas-boat Edidonphyl which had been built on a hill 600 feet above sea level. The engine had been overhauled by a mechanic, but soon gave much trouble. Some of our experiences were amusing (in retrospect) before we solved the simple difficulty after expert help along the coast had failed. But this cost us four days, not counting added delays because time of tides at the head of Bute inlet had become less favorable when we arrived at the mouth of Southgate river. By the time the traveller has reached the head of this inlet the Coast mountains have been penetrated obliquely for some fifty miles, such seaway forming a matchless introduction to the central heights of the range. The cook at J. E. Anderson's logging camp, where we halted, volunteered the belief that Bute inlet was more beautiful than Lake Louise. But this was comparing somewhat unlike things: Lake Louise centres attention on a few great peaks, whereas the jade waters of Bute mirrored mountain ranges.

We planned to approach Mt. Grenville from Southgate river (which is also marked "Pigeon Valley" on the chart). Memyza, Memeia or Maddon were early alternative names. Earliest exploration by white men seems to have been a hurried trip in 1861 by "Major" William Downie. (See "Early Exploration in the Coast Mountains," by the present writer in this issue of *C.A.J.*). Downie said that "Lockwalla Indians came down this way from the interior."

Dennis G. Walker, of Ocean Falls, B.C., told me "I had the pleasure on one of our trips up the trail (which the settlers built as far as the forks) of stepping right on top of a bear that was lying down below a rock I had to jump off. I don't know who was the most scared; we both went off in opposite directions."²

1. Named by Capt. Bishop after Sir Richard Grenville who won immortal fame when the little *Revenge* fought fifty-three Spanish galleons. Other prominent peaks are named in association with Sir Francis Drake and his contemporaries. Capt. Bishop has presented much evidence that Drake visited the coast of British Columbia. See *British Columbia Historical Quarterly*, June, 1938. In 1930 Bishop climbed Mt. Sir Francis Drake, 8800 feet. This is the mountain which Fyles and Dalgleish attempted in 1930 (p. 98, *C.A.J.* 1930).

2. Mr. Walker lived from the spring of 1893 to the fall of 1897 at the settlement then existing westward from the mouth of the Southgate river.

F. A. Devereux, C.E., P.L.S., in "Crown Land Surveys, 1895," p. 765, states, "There are about 60 inhabitants in the village, all of whom are industrious, hard-working people. Many have preempted land in the Homathko and Southgate valleys and have begun clearing and building, but the lack of trails and roads is a serious drawback to the settlers. For some miles up both rivers the land is either closed to settlement or alienated by purchase, so that the settlers would be

The mouth of Southgate valley is flanked imposingly by Mt. Rodney on the south and Bute mountain (ca. 9200 ft), to northward. (Phyl and I had hoped to climb Bute mountain in May, 1926, while up Bute inlet for a week to examine Homathko valley in readiness for our first attempt to reach Mt. Waddington, but on every day but one snow fell as low as 3000 feet).

We had never seen the glacial-tinted inlet more delightfully mirroring the grand mountain walls which generally plunge at steep angles to unknown depths.³

Precious memories of priceless days crowded our hearts as we looked up Homathko valley to Mt. Waddington and other high peaks nearby.

The muddy Southgate river was too shallow and swift to enter at low tide. The view up the mighty Southgate trench was closed excitingly by two massive mountains probably little short of 10,000 feet in height.

The Campbell river detachment of the B.C. Police had supplied a most useful sketch map which showed a "slough" about three-quarters of a mile up-river where we might leave the boat with reasonable safety. For this distance the river swirled along the granite base of Mt. Rodney. A newly-arrived fish warden, wishing to know the river, accompanied us up it. He kept well away from the cliffs, grounded twice and turned back. We hugged the rocks and found the haven, but, going dead slow, still nearly ripped the hull open on a drift-bolt in a sunken timber of a rotting logging-railway trestle.

Though we carefully studied the opposite shore of the river (true right) at low tide, when at evening high tide next day we crossed to land supplies, we did not suspect that a safe mud bank had been eroded in the meantime. A solidly embedded log awaited us as we hit the shore with needful force, but fortunately some springy crab apple trunks had fallen and cushioned our impact.

We unloaded in a few minutes on the flooding flat and left Polly to carry the stuff to some place above tide level. When the gas-boat had been worked free of the log up which it had climbed, Phyl and I took it back to the slough. Then on Phyl, as the best rower in the party, fell the labor of making the final crossing of the river with the dinghy in the dimming light. Almost at once the river resumed bringing down the endless procession of driftwood which often included whole trees 150 feet long.

The only spot definitely above tide level was the floor of the least ruinous of several grimy shacks nearly encircled in dense brush.

Discovery of a trail next morning elated us unduly. We soon found it suffered from lack of recent use except by bears. Parts were good, much was over-grown and obscure, even misleading now and then. Sections had recently been under water. Often the trail had been washed away, and was being eroded rapidly.

obliged to build six or seven miles of trail before they arrived at the first pre-emption, which they do not feel prepared to undertake."

"At the period we lived there," continues Mr. Walker, "the Chilcotins came every winter to the coast and what a time it was for us kids. They put up bark wigwams and spent the winter making snowshoes, moccasins, beadwork, etc., and tanning mowitch [deer] skins to take back in the spring with them." Further experiences in connection with this vanished settlement are related in "Early Explorations in the Coast Mountains," already referred to.

3. 9000 feet is the depth given by Sir Norman Watson in *Round Mystery Mountain*, p. 20. Authority for this incredible—or credulous—figure, twice the depth of water of any known fiord in the world, is not quoted. Although Knight and Bute inlets were probably occupied by the greatest valley glaciers during the Ice Age it seems unlikely that these inlets exceed 3000 feet below present sea level. (See "Vertical Extremes on the Coast of British Columbia," by Dr. Neal M. Carter, *C.A.J.*, 1932; "Vertical Extremes," by N. E. Odell, *C.A.J.*, 1933, and "Glaciers of the Mt. Waddington Region," by the writer in *C.A.J.*, 1935).

We had food for twenty days. This was too much for a single load with such travelling conditions. While the urgent vigor of coastal vegetation seems to give forth a stimulating influence, it also presents an insidious hidden threat akin to that of deep soft snow to one far out in the wilderness.

With hope flaring up again, we turned northward up Elliot creek (about eight miles in a straight line from the river mouth). But we soon found that the creek roared for much of its length down a deep canyon. Too late, we found we were almost certainly on much the worse side. We tried to follow a bear trail, but the bears plainly failed to agree where to go when the going got bad—by their low standards.

Polly added to our specialized vocabulary by calling the many logs under which we grunted our impious way, “Mouse-traps.” By hacking a course through braided growth of all the tough and/or prickly plants known on the coast, we saved some time and more effort when crossing avalanche tracks. Instead of “counting their blessings one by one,” the bedtime diversion of the women was to compare the day’s new pattern of bruises and abrasions.

“I’d prefer the wasps,” Polly vowed once when she emerged (with no missing limbs) from a tangle of brush and rocks into which I directed her as the one alternative to meeting wasps I had roused. (White-faced wasps which one naturalist wrongly said will not sting). Polly had not before experienced such prolonged back-packing or such obstinate obstacles.⁴

Occasional upward glimpses to spired or gabled rock crests crowning the seamed ice and snow expanses above the steep valley walls stirred us with call of the heights (which some climbers think can be explained in the bald phrase “Because we like it”—an answer leaving untouched the usually mixed physical, mental and spiritual aspects on which the liking is based).

Gleaming through the dark forest came, on August 18, the inspiring sight of a glacier cascading 2000 feet or more over the bare head-wall of the valley to a comparatively low elevation. Though turning eastward over the sky line toward Mt. Grenville’s position, this shattered ice ladder held scant hope of a practicable escape to the upper levels.

On the 19th, the tenth day of packing, we placed our base camp at about 2250 feet, not much lower than the glacier tongue (2400 ft.) and nearly a mile distant. Weather had been marvellously fine so far.

Buoyant-hearted as slaves set free, we set out somewhat leisurely next morning to prospect a route to by-pass the formidable ice-fall. We tramped to the glacier through young alders draped disgustingly with tent caterpillars.

The oldest terminal moraine, close to camp, was probably over 100 years old. The most recent terminal moraine created a small lake in which the ice-front lay rotting in large fragments. About 300 yards below this lake a fairly recent terminal moraine formed a second shallow lake. The flattish snout extended about half a mile below the great ice-fall. Two big waterfalls spouted from beneath a flank of the ice-fall. At the cliff foot they disappeared again beneath the ice.

We wisely left the ice-fall alone, and fuller knowledge of the big glacier confirmed our wisdom. So we scouted up the cliffs to the westward—the eastern wall was even less favorable. On our way we got into some difficulties owing to the whole front of the lateral moraine, for a length of about a quarter of a mile, having slipped down bodily for about 100 feet. The friction had cut vertical striations in the bed-rock.

4. The MS. of her article for the *American Alpine Journal* states “The trip was a thorough course in camp-craft, camp making, cooking and trail-breaking carried to a degree of efficiency never experienced, nor found necessary, in the Rockies.”

On the cliffs the lichen-darkened rocks felt unpleasantly hot to the fingers where hot masked by dense tangles of downward-hanging evergreens. This type of obstacle is common enough in the Coast mountains, but was especially well developed on this mountain side. The slabs tended to lack holds, and these sloped too much.

With Polly leading on the slabs, we got high enough at last to figure out our probable position in relation to Mt. Grenville although the mountain remained unseen⁵

Waterfalls of more than ordinary splendor plunged down the granite walls of the valley for thousands of feet. Greatest in volume was a torrent falling in muddy spray down a wide staircase for over 2000 feet from a hanging valley to the east of the moraine lakes. Up in this valley we counted on finding the glacier shown in Fyle's fine panorama from Bute mountain, but Phyl did not easily convince us she was right.

The barometer again fell a good deal lower, but the 21st remained fine in spite of a few clouds from the southeast. Phyl and I started out to explore the hanging valley. We carried several days' food to cache at a climbing camp.

Elliot creek being unbridgeable here, as along most of its length, we must make a tedious detour by crossing some distance up the glacier or by fording where the creek split up between the two lakes. We hoped this latter might be possible in the morning. Its smooth flow proved deceptively swift, just about all we could stand against.

We successfully found a breach in the cliffs guarding the mouth of the hanging valley, but ascent was slow owing to the steepness of the wooded slope (old moraines) and the masses of loose needles and twigs which slid away underfoot.

Consequently we lacked time to explore the glacier after happily mounting the lateral moraine and identifying the glacier as the grand corridor we sought to Mt. Grenville. A bend in the valley hid the mountain. The ice tongue ended in a small lake at the lip of the hanging valley, elevation about 4300 feet.

I did a bit more work on the trail while going down. We found, as expected, that the creek now ran too strongly for fording, so plodded over moraines and glacier, and only reached camp at dusk.

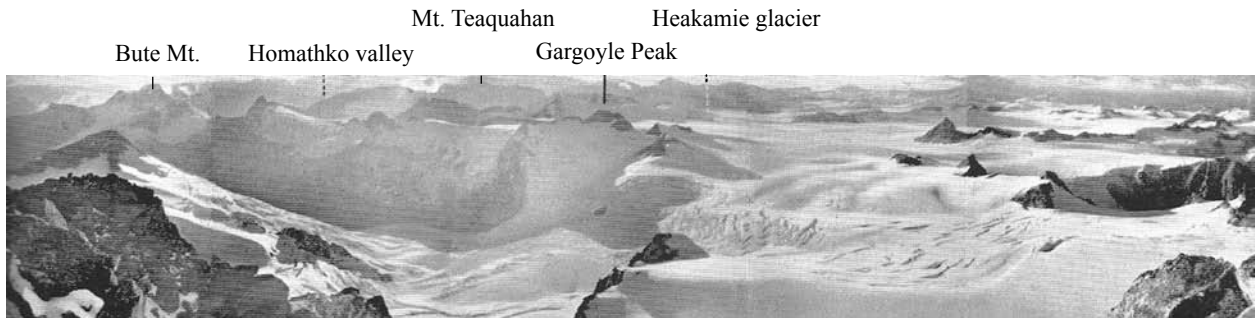
Despite inspiring starlight, our weather wisdom warned us rain must almost surely result from the shift of wind to southeast. At dawn the rain-hag let down her grey hair, ready to weep.

But we set out for high camp. While we took off un-needed clothes at the ford the wind off the nearby ice saw to it that we did not enter the water in an overheated condition.

We soon discovered anew, as we climbed through the woods, that undergrowth when wet seems much thicker than when dry. We thought Polly's boots less efficiently nailed than ours (Tricouni nails) for the work in hand, but this may not have been the chief cause for her tumbling about forty feet, partly down rock. Though she soon shouldered her pack again, she did not convince us that her hurts did not trouble her for the rest of the trip.

We stopped at about 4500 feet to camp amid a jumble of logs and big rocks on a steep slope. Though very unpromising, it turned out to be the most comfortable camp on the trip, but not

5. "The highest peak of the vicinity stood at the head of Elliot creek about eight miles distant, a long glacier tongue curving round its base." ("The Peaks of Bute Inlet," *C.A.J.*, 1930, p. 95). The map accompanying the article shows Elliot creek flowing about four miles southwest from this glacier. We found the main creek flowing southward from a glacier which came only from the western slopes of Mt. Grenville instead of the southern slopes. But as this section of the map area was seen only from one direction by the Fyles party, it is not to be supposed that much accuracy was claimed for it.



West Grenville Glacier – West and North from Summit of Mt. Grenville

Photo Mrs. Don Munday

Elliot creek valley in front of Bute Mt., Leads up to South Grenville glacier 9at bottom of view).
Glaciers in valleys between Gargoyle Peak and Mt. Teaquahan drain from Homathko Snowfield south to teaquahan river.
The great Heakamie glacier breaks through (west) by way of valley to right of Mt. Teaquahan.
Compare with aerial view in *Early Explorations In The Coast Range* in this volume.



Aerial View of Part of Homathko Snowfield

Photo Courtesy Of J.R. Farrow, Water Rights Branch

Possibly half of the valley section of Heakamie glacier is shown. Mountains on horizon are near Chilko lake. The large “bay” of ice on the glacier’s true left finely illustrates a common feature of erosion by the huge valley glaciers in the past; even where found at mouths of side valleys there is usually evidence, as in this case, that the trunk glacier played the chief part.

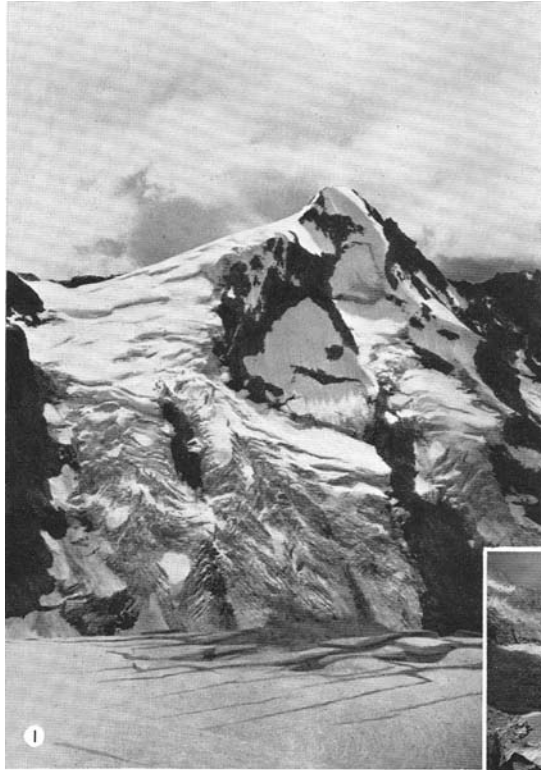


Photo W. A. D. Munday



1. The Splendid Snow Peak Across South Grenville Glacier from Mt. Grenville

Photo W. A. D. Munday

2. At About 2,300 Feet Elevation on West Grenville Glacier, Showing 2,000 Foot Icefall

3. Mt. Grenville from About 9,200 Feet (S.W.)

Photos Mrs. W. A. D. Munday

without much hard work. In the meantime Phyl and Polly got thoroughly drenched bringing down the things cached the day before up at the moraine.

Probably the party was the better for a day in camp on August 23 on account of continued rain, but we felt anxious as we were almost due to start homeward. Every preparation for a climb was made, though the wind remained in the evil quarter. Yet evening brought a golden clearing, and the night a starry brilliance unimagined by lowlanders.

Still marvelling at the weather, in the grey morning light we pushed through wet thickets to the moraine. Bute mountain's cloud-banner behind us signalled the onset of ominous cloud masses rolling up from Bute inlet and spreading from peak to peak.

Frost had stilled all those surface sounds which tell that a glacier is a purposeful force. The glacier appeared to be about five miles long. Clearly marked medial moraines and well-defined tributary glaciers copied on a much reduced scale the great glaciers of the Coast mountains.

The glacier's curving course presently revealed the flaming sky through a comparatively low pass at its head. From the pass we next saw a bold cliff lead upward. Then other exciting crags and tusks grouped themselves to northward to form an aspiring mass somehow suggesting an unseen ultimate height in a domed cloud-cap. The Grenville massif lay before us. We had, indeed, camped on the slope of the outermost spur.

A branch glacier, which we called "Revenge glacier," clutched by the high southwestern crags, escaped diagonally half-way down the slope, then writhed its tortured course across the face again before uniting with "South Grenville glacier," as we termed the trunk glacier.

Below this glacier junction a glaciated cliff impelled us to try instead the adjacent ice-fall; I led into it with some delight although its ice formations looked rather doltish in form. But its wide and loutish crevasses grinned defiance. We retreated, having lost a precious hour. We thereupon climbed the cliff.

We continued more or less along the edge of Revenge glacier, mostly on rocks recently exposed by melting of the margin of the quite impracticable ice-fall. Just at its crest the rocks forced us on to the ice.

Reduced snowfall and higher than average temperatures are biting deeply into glaciers of the Coast mountains. On this side of Mt. Grenville little of last winter's snow remained even at 9000 feet. Crampons would have saved us time and step-cutting on the hard snow.

We still had no clue how to find or reach the peak. What we knew of the mountain suggested that we aim for the western face. So we turned aside to a snow col between two of the many towers which form the southwestern ridge. But it revealed only a wild and grim little cirque which led down to another branch of South Grenville glacier.

New snow lay deeper on the rocks and ice leading up to the next col, about 9200 feet, reached at 3 p.m. Grey streamers slowly unwrapped a bluntish rock pyramid beyond a broad névé. This was the main crest.

Ice slopes and a really huge bergschrund offered no simple descent to the head of "West Grenville glacier," (this outflow of the vast Homathko snowfield forming the ice-fall at the head of Elliot creek).

Our pinnacled ridge mounted to a squarish mass which possibly connected with the pyramid by way of a level northern ridge. We debated going down to Revenge glacier. Less wisely we climbed a northern exposure of the pinnacled ridge where hard snow and ice carried several inches of delaying new snow.

When we reached a col at the foot of the square mass even Polly's enthusiasm for rock did not warm at the western and southern aspect of the clean-cut cliffs. And I predicted that a big ice-fall lay round to eastward of the rock wall.

Two gullies led down to part of the easterly glacier which seemingly plunged for 5000 feet or more towards a trunk glacier below—probably this is the most magnificent face of the mountain, but it was too steep to be seen.

A traverse on steep ice allowed us to outflank a bergschrund in the gully. Then we hurried down an entrancing snow-crest paralleling the base of the precipice.

Suddenly we discovered a narrow gully cutting the cliff. A shell of ice, cluttered with new snow and rocks, made the bed of the cleft unpleasant; wet walls were rotten and shelving. But it led to the steep edge of the ice-cap above the cliffs.

I count it good fortune that various factors have conspired so often so that our travel at upper elevations of the Coast mountains has been at a time of day when prudence warns that climbers ought to be safely down to lower levels. Clouds, still brooding rain, had withdrawn for fifteen to twenty miles around us. Vigor more subtle than that of mere mass and form characterizes any mountain scene. But a landscape rich in glacial features such as this reveals power at work, the marvel of creation still unspent.

One climbing uncertainty remained. The final pyramid split into two points, the far one almost certainly hard to reach. From the far side of the ice-cap a broad gully led to a slope of chilly rocks. The final pointed block definitely outranked the westerly tower. The time was 7 p.m. (P.D.S.T.).

It was good to learn that summit revelations are not keenest in youth. In the more matter of fact sense the revelation of the vast glacial areas gained impressiveness because of the commanding height of Mt. Grenville which rises at the southeast angle of the immense Homathko snowfield. Phyl and I had often surmised about this mysterious plateau which we had first sighted at dawn from upper Waddington glacier in 1926.

An area of 250 square miles does not seem an undue estimate of the size of the Homathko snowfield which forms a quadrilateral bounded by Southgate and Homathko rivers. ⁶Apart from its size, its special feature lies in being surrounded by mountains well above its level, giving it some likeness to a frozen lake. The general elevation appears to be 7000-7500 feet. Glacier tongues drain it through gorges cut in the rim of mountains; some of these glaciers plunge from the plateau in notable ice-falls, particularly the eastern ones. To westward the great Heakamie glacier extends within a few hundred feet of sea level.⁷

In the Mt. Waddington region a few broken views offered small consolation. Across the Southgate river the northerly exposures gave an impression of very snowy country. This is a rugged district, comparatively high and with much uniformity in height.

Still simmering with delight, we started down in half an hour. Almost at once a long streamer of cloud raced across the sky and hid the peak.

Strange play of lights on the eastern ranges invited receptive minds to discern there more than mere sunset glory; a sliver-thin moon beckoned us through a col to Revenge glacier when we

6. One frequently hears of sections of the Coast mountains said to have glaciers forty miles or more long, the speaker merely meaning the combined glacial systems of a range by the term "glacier," instead of looking on the upper boundary of a glacier as being marked by the watershed of its own drainage area.

7. See references to Heakamie glacier in "Early Explorations in the Coast Mountains," in this volume.

emerged in the dusk from the icy cleft below the ice-cap.

The women shivered in the wind while I cut steps down the steep crevassed ice. When we picked up our tracks we tried to hurry, but some thawing had dimmed the shallow impressions in the hard névé.

By lamplight we got off the glacier about 10 p.m., and at first did fairly well on the glaciated rocks. Then we missed a guiding cairn and clawed around for a long time where we might have shied at going in daylight. Polly's lantern succumbed to bitter wind, but the two women did amazing things with such flashes of light as I could give them from my acetylene lamp. But presently a small diorite dike's easier formation allowed us to outwit the slabby granite.

About 1.30 a.m. we rested in a heathery hollow partly sheltered from the wind. I was relieved when my companions proved ready to leave the last cliff till daylight.

Tired feet found South Grenville glacier seemingly much rougher than during our eager ascent. We reached camp about 9.30 a.m., finding it undisturbed by the bear which the women had routed near the cache. Rain began in a few hours.

Fortunately the rainfall did not equal normal thawing of the glaciers, so on the 26th we found Elliot creek ford less powerful but not less icy.

Phyl's indignation can still be roused by mention of some rodent having stolen from base camp the home-dried apples with which she had planned some triumph of cookery. Wettish weather and wet brush lessened the pleasure of the tramp to the river mouth where we arrived August 27.

A big spruce had grounded in mid-channel, making an awkward obstacle; approaching darkness prevented our waiting till the height of the tide to cross with the dinghy; these things, coupled with natural weariness, led to failure.

Even with better conditions in the morning, Phyl had a hard fight to gain the mouth of the slough. Rather than risk another dangerous landing with the gas-boat, Phyl went back twice with the dinghy. Polly insisted on taking the oars for the last crossing. At one stage she was losing ground, for there is a knack to rowing in swift rivers.

We had a few tense minutes running down to Bute inlet through a band of fog on the river. "Wind," said some famous seaman, "always favors the good navigator." But this is not the age of sail, and we had no lack of company when we took shelter from winds while homeward bound. On September 2 we reached Vancouver.

In Search of Rocks and Snow In Canada's South

By Roger Neave

Up to 1937 the author's ideas as to the topography of Ontario had been formed by a few trips over the Canadian Pacific Railway main line between Montreal and Winnipeg. This is mainly across the pre-Cambrian shield, that fascinating wilderness of rocks, and lakes and trees.

When therefore, he left Winnipeg in November 1937 to take up residence in Sarnia he had visions of rolling hills, rocks and abundant snow. It proved to be a case of out of the frying pan into the fire! The country around Sarnia is as flat as the proverbial pancake. Over three years' search of the vicinity has failed to locate even a quarry suitable for summer rock climbing. The banks of St. Clair river have less elevation than those of the Red and Assiniboine, and the snowfall is light and uncertain with frequent thaws. These serious deficiencies in climate and topography are only partly mitigated by the clear waters and sandy beaches of Lake Huron.

Something had to be done about this depressing situation, and an enthusiastic companion was found in the person of Stanley Antenbring, also of Winnipeg. Some "rock" climbing practice was started by making ascents of the largest trees in the district. One especially fine oak became known as "Eagle's Nest Arête." True, the "eagle's nest" was that of a crow, but one has to use imagination under such circumstances! Two trees growing close together provided good practice for "back and knee method" and there was plenty of opportunity for lassoing and roping off. To add a little excitement, ascents and descents were made against the stop-watch—until one unfortunate made an unexpected but record time on the descent.

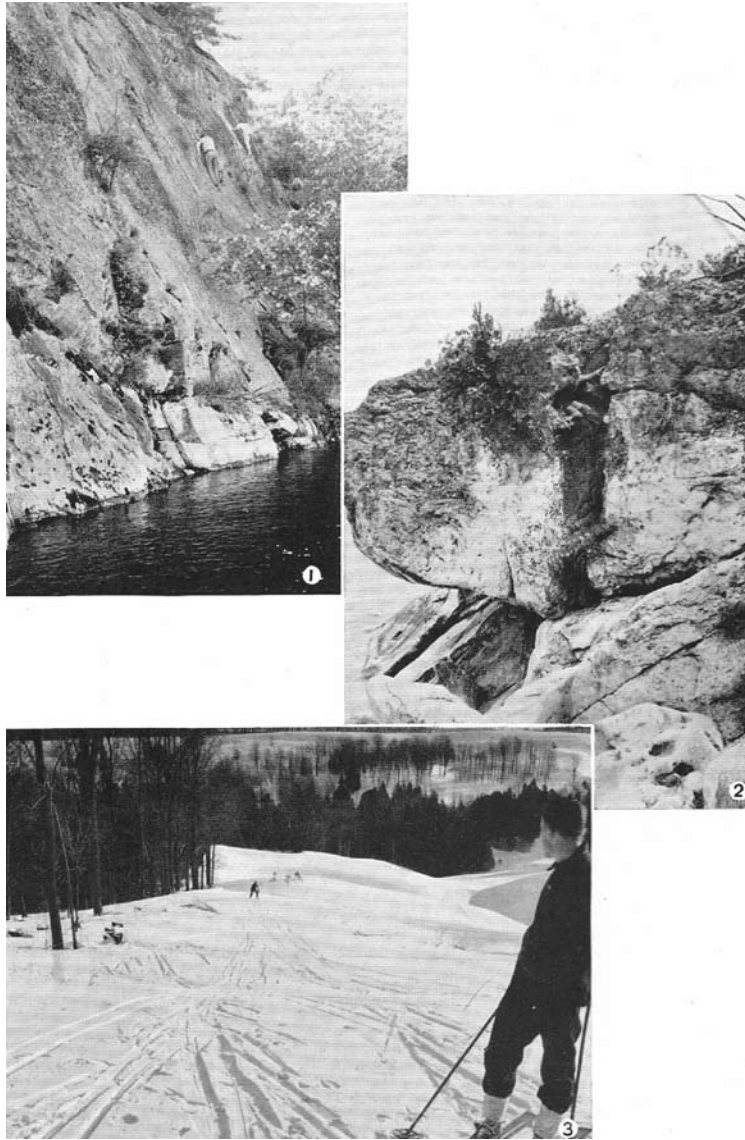
Through the early winter of 1939-40 the urge to again strap on skis resulted in making four or five trips, in company with Frank Dyer and Stan, to Medway creek, some sixty miles to the east, and close to London. Here, there are some passable nursery slopes sufficiently long to make four or five continuous turns. Also the snowfall is considerably heavier and more reliable than at Sarnia.

One of these trips was made during the week, after office hours. The idea was to take advantage of a full moon. When doubt was expressed as to whether this indirect source of lighting would give the necessary number of lumens on the working surface, I referred the doubters to that experienced night traveller Mr. S. Claus, and quoted—

"The moon on the breast of the new fallen snow
Gave a luster of midday to objects below."

This proved convincing and by 7.00 p.m. we were unstrapping skis from the car at Medway creek by the inadequate light of a watery display of aurora borealis. When the others persisted in embarrassing enquiries as to the whereabouts of the moon, I assured them that it was "just around the corner" and would be up any time now. During the next hour and a half the stream of sarcastic remarks about all "moonlight" ski-ing expeditions and their organizers was only interrupted by the dull thud of falling bodies. However, the moon did eventually arrive on the scene, and bruises were soon forgotten in the sparkling brilliance that turned the powder snow to diamond dust.

The highlights of the summer of 1940 were a trip of several days to the Muskoka Lakes district, and another to Lions Head on Georgian bay. The former was ostensibly planned as a canoe trip, but by a strange coincidence the "ideal" camping or lunch spot was usually discovered close to the highest or steepest rocks in the vicinity. This district offers good opportunities for short rock



1. Rock Climbing In Muskoka

Photo F.F. Dyer

2. “Back And Foot Method” On Boulder In Lion’s Head

Photo F.E. Neave

3. Ski-Ing At Walkerton

Photo H. Callister

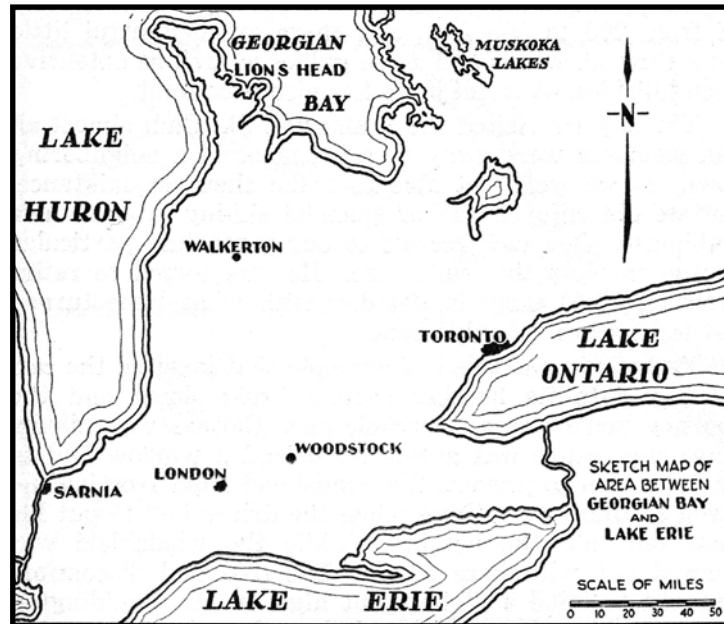
climbs of the English Lake district variety. The rock is delightfully sound granite and climbs of any degree of difficulty can be found. Lions Head, on the other side of Georgian bay, is a decided contrast with its white limestone cliffs that have the Rocky Mountain habit of coming away in one's hands. Unfortunately both these places are over two hundred miles from Sarnia.

In the Fall of 1940 contour maps of southern Ontario were obtained, and a careful study of these showed hills close to Woodstock with a maximum vertical interval of 350 feet. This is on the main Toronto highway, an important point when a hundred miles of winter travel is concerned.

A preliminary investigation of these hills was carried out early in January 1941. The snowfall had been rather light and stones were not sufficiently well covered for comfort and confidence, but the hills proved to be up to expectations, well clear of bush and with interesting gully-running possibilities.

Inspired by the first ski-ing of the season, it was decided to make a week-end trip to the Georgian bay district the following week, but a thaw, coupled with dangerously icy roads, caused us to postpone the trip at the last moment.

Snow continued to be scarce, but towards the end of the winter rumors began to circulate that snow had fallen to the north. So early one fine Sunday morning a party set out by car to verify



these reports. After two hours driving through depressingly brown countryside a unanimous cheer went up when the car started to buck heavy drifts of new snow.

We had heard that there was an active ski club at Walkerton and we decided to pay it a visit. Arriving at the town we were directed to the club's headquarters, and after two miles of pleasant ski-ing over rolling country we reached our objective. The club has acquired an old but substantial farm building, and converted it into a very excellent ski hut, quite reminiscent of some of our club huts in the mountains. It is well located in the hilliest part of the district where the slopes have a drop of from 200 to 300 feet, and there are delightful little runs through woods and down gullies as well as extensive open hillsides. A small jump has also been built.

The day we visited the Walkerton Ski Club almost all the members were away at a ski meet in a neighboring town, so we were not able to make their acquaintance, but we did enjoy a day of

splendid ski-ing around their clubhouse. One new recruit to our party had particular reason to bless this clubhouse. He was forced to retire from the field early in the day with what later turned out to be a broken ankle bone.

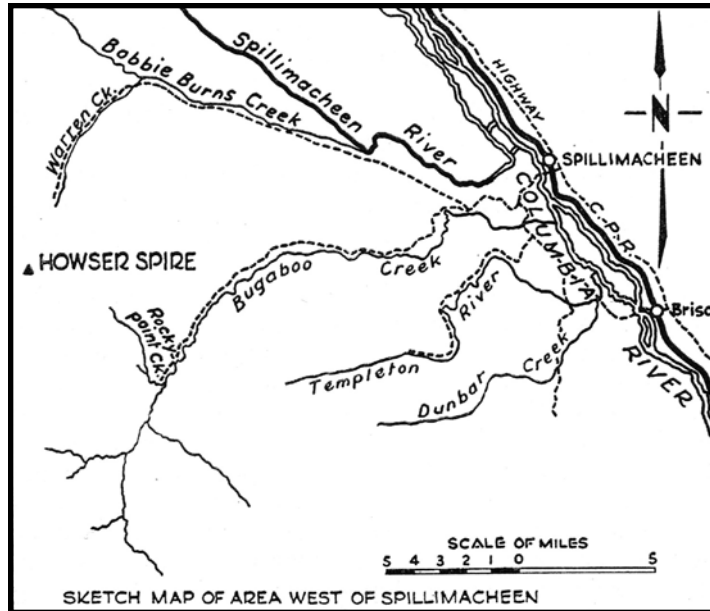
Perhaps it was this bad example that inspired the car. At any rate its heating system broke down and the journey home was a miserable one. Clothes were damp, the temperature was around zero, and a window had to be kept open to prevent the windshield from frosting up. Even so there were times when the driver had to put his head out into the icy blast while the windshield was thawed out with bare hands. The cold and discomfort brought to mind a night spent high on Mt. Waddington in a blizzard, and provoked a chilly and realistic discussion on bivouacs! This trip ended another season's ski-ing.

The motto says, "Through difficulties we conquer." But there are times when one cannot help wishing that the difficulties would take more of a back seat.

South Tower of Howser Spire

By Lyman Boyer

Sprawled on a rocky promontory high above the last trees, we gazed intensely at a cloud. Hail blew in our faces. Reluctantly the cloud lifted, revealing the last unclimbed giant of the Bugaboo group of the Purcell range—the South Tower of Howser Spire. In one babbling voice we seven Seattle Mountaineers speculated about the Tower. We had read of it, studied photographs,



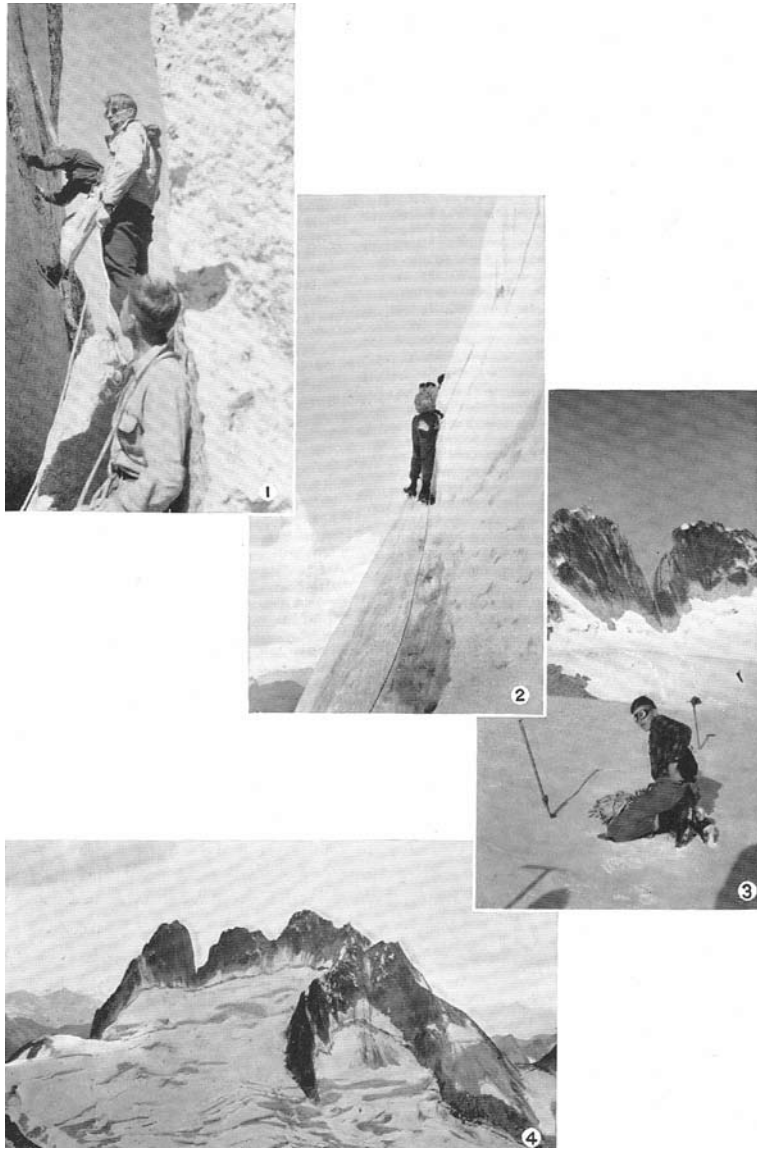
and talked to previous visitors; we had assembled the essential supplies and left Seattle; we had taken the well-known truck ride twenty-five miles to Bugaboo creek and back-packed five miles to the timber line, and now we were looking at the Tower itself. The uncrossed bergschrund looked difficult but offered possibilities, for above it was an ice couloir ending above at least half of the formidable cliffs, and the ridge above seemed somewhat broken.

Estimates of the time between us and the summit ranged from two hours to two days to forever. Slowly we turned our backs and descended to base camp at 7000 feet, just below Snowpatch Spire, resolved to return the next day for an attempt in full force.

At 4 a.m. Wednesday August 6, 1941, we four climbers waved to the others and were on our way. With a combined experience of twenty-seven years of climbing, notable first ascents and new routes in Washington, summers in the Tetons, Selkirks and other North American areas, the party was well prepared.

We were Lloyd Anderson, dependable veteran, Lyman Boyer, skilled with the ice-axe, Tom Campbell, piton expert, and Helmy Becky, whose experience belied his youth. Each carried crampons, ice-axes, piton equipment, soft shoes, one lunch, extra clothing, and party equipment including cameras, first aid, two 100-foot climbing ropes and two 200-foot rappel ropes.

The pink alpine glow on the névé fields promised much better weather. A mild winter had hastened glacier recession, the lower ice slopes being completely free of snow.



1. Above The Bivouac. A Finger Tip Crack

Photo Tom Campbell

2. Upper Lip of Bergschrund

Photo Lloyd Anderson

3. The South Tower and Middle Peak of Howser Spire

Photo Lloyd Anderson

4. Howser Spire from Bugaboo; South Tower on Left

Photo Lloyd Anderson

Unroped, and each at his own pace, we approached the bergschrund at 9900 feet, about 8.00 a.m. The entire Howser group is separated from the upper Warren glacier by a large bergschrund appearing on a very steep slope. Under the South Tower the bergschrund is almost level, breaking away down to the left. At the angle where the schrund broke down to the left, the upper slope overhung about three feet, ten feet above us, the lower lip providing a good place to meet and rope up. A traverse at this angle would almost place us on the upper lip without tackling much overhang. Lyman stepped across the choked bergschrund and, working actually inside it, found it necessary to remove four inches of loose ice before steps could be formed in the solid ice beneath. He cut his way through the overhang and stood on the upper lip, safeguarding himself with an ice piton and a bucket step. A voice below said, "At least no one has been this far." Lyman was now on a sixty-degree ice slope, below and slightly to the left of the main ice couloir. Scraping off two inches of powder snow, he cut steps steadily straight up the slope eighty feet to the first rocks. He anchored himself to a spur of ice and prepared to bring the second man up on a shoulder belay. The rope being all out, Tom then followed him up to the belay point. Making an ice traverse twenty-five feet to the right, Lyman found a sloping granite slab which offered a temporary resting spot. The whole party was brought up and anchored to two rock pitons, as the slab sloped a little too much for comfort. We had spent four hours in crossing the bergschrund and reaching the rock.

About this time we began to collect an audience. The rest of our party arrived, exchanged shouts with us, then left to climb Pigeon Spire. Soon four members of the Sierra Club arrived, and camped at the base of the South Tower.

Lloyd relieved on the leading, and owing to the slow rate of ice work and absence of belay spots in the ice couloir, began looking for a possible route up the rocks. He found an eighty-foot chimney, which turned out to be a combination ice and rock climb. He put in five safety pitons, and cheerfully worked on ice, claiming that his felt-soled shoes stuck better when wet. Round an eight-foot chock-stone involved stemming and a pull-up. Piles of loose rock demanded the most careful movements. A belay point was found, and the others followed in succession. Hearing a cry of "Rock! Rock!" Lyman clapped his hands to his head and received a stunning blow. A little first aid was necessary when the party was collected.

Similar work followed for the next three hundred feet, on a broken-granite face with spotted ice and snow areas and an average gradient of about fifty degrees. Lloyd led, working very carefully in the loose places, using Helmy when nailed boots were required on ice. About 7 p.m., when we were thinking of bivouacking on the face, Helmy crossed a mound of ice at the head of the main ice couloir and with a glad whoop informed us that he had found a fine, level ledge.

We labored until dark, building a wind break and a rock floor on the underlying ice. With all our spare clothing on, we took off our boots and put our feet into our rucksacks, huddled together, and tried to keep warm.

A crag rat found us there, and chewed on our precious lunch. Rescuing our food, we nibbled to pass the time between moments when we could doze. At 5 a.m., we greeted a cold dawn, taking two hours to thaw in the sun. We had accomplished about half the elevation between the bergschrund and the summit. Above camp, the ridge appeared broken, but was so steep that no more than 100 feet was visible at any time.

The most apparent route had to be abandoned because of a pitch which would have required considerable direct aid. Tom investigated four piton cracks to the left of the ridge. He drove several pitons into the most promising crack, but was stopped by a tricky bulge of rock, with even greater difficulties ahead. Helmy persuaded Lloyd to try the face to the right. They worked out along

ledges but were stopped by a snow patch. They returned to camp for nailed boots and ice-axes.

It was now 11 a.m. and we had a net gain of just thirty feet above camp. Lloyd and Helmy rounded the snow patch and dropped into a steep couloir filled with broken rock, ice, and snow. They had found the key to our immediate difficulties, but were ready for relief. Lyman took the lead at this point and led up a twenty-five-foot vertical jam crack and found enjoyable balance climbing above.

This work on the face was extremely exposed, and we seemed to be looking directly into the faces of the audience below. Returning to the ridge about 150 feet above camp, we climbed a succession of somewhat difficult pitches, which were a pleasure in soft-soled shoes.

Ahead was a pitch which seemed impossible. On either side, the face dropped sheer. A forty-foot wall ended in a slightly overhanging pitch of ten feet. A heavy growth of lichen added difficulty. However, a fifteen-foot pinnacle in front of the wall offered a possible start. Lloyd mounted the pinnacle, placed two pitons as high as he could reach, and prepared to belay Lyman. The latter climbed the pinnacle, stepped over Lloyd onto the wall. Moving rapidly up to the overhang, he drove in a piton and anchored. Using direct aid technique, he raised himself four feet and reached a handhold above the overhang, but the rope jammed in the carabiner and it was only with the greatest difficulty that he swung himself up the ledge above.

Following a more moderate pitch, we were able to see the summit, 100 feet above, but it was 3.30 p.m., and we needed this encouragement. Fifty feet of a steep, exposed ridge led to the broad summit ridge, with easy rock scrambling to the final summit. Lloyd stood aside and let Lyman reach the summit first. He turned to shake hands with Lloyd, Tom, and Helmy. These friendly gestures meant as much as winning the summit. The four of us then responded to the yodels of those below. Helmy, the youngest of the group, informed us that it was his birthday, his sixteenth.

Quickly we built a cairn, read the aneroid at 10,800 feet, left our names in a tin tube, took a glance at the view, and left the summit. We had already been away from base camp for 36 hours, were worn out, and wanted to get down as quickly as possible. Helmy and Tom took over the job of placing rope slings and rappel ropes, while Lloyd and Lyman followed them down. We had to follow our route of ascent all the way in order to recover bits of equipment. We reached our bivouac camp at 8 p.m.

Rather than spend a second night in that cold spot, we chose to move down slowly by the moonlight. Fatigue and worn nerves took their toll; but with loose rock, we could not relax our care. A tangled rope or a stray boulder crashing downward caused violent curses to rend the night air. It was with great relief that we reached the lower lip of the bergschrund at 2.30 a.m. The last of our food was gone. Helmy complained that he had to eat to grow as well as to live.

We headed for base camp after forty-two hours above the bergschrund. We had to revive long enough to find a new route through the ice-fall between Snowpatch and Pigeon. We were welcomed into base camp just fifty hours after we had left, and found a hearty dinner ready for us.

The magnificent South Tower had tested everything in the art of mountaineering, and it was with a sense of great accomplishment that we rested after the ascent.

Ski-ing in the Selkirks

By N. H. Brewster

The history of mountaineering near Glacier, B.C., has been suitably recorded; its ski-ing history is obscure enough to suit the most conservative member of the Alpine Club. Nevertheless, it appears likely that some of the first alpine ski-ing in this country, was performed here. In the opening years of the century Swiss guides were stationed at Glacier. Edward Feuz, Jr., started the first Glacier Ski Club in the winter of 1903-04, enlisting seven or eight members of the local hotel staff. In the winter of 1906-07 Feuz made the first ski ascent of Asulkan pass. A few years later he repeated the ascent, accompanied by A. A. McCoubrey.

Later the Swiss guides were stationed at Lake Louise and there follows a hiatus of many years during which there is no record of any further ski expeditions.

In March 1938, Chris Abell and Charles Hopkins traversed Balu pass (6691 ft.), an account of their trip being given in the Journal for that year.

A young man named Hope-Simpson spent two or three weeks during June, 1940, ski-ing around Glacier. He carried skis out to the snow-level each morning and skied over the Asulkan and Illecillewaet glaciers and Balu pass. Arriving in Glacier at the end of June, I missed him by a few days, and have been unable to learn the details of his tours.

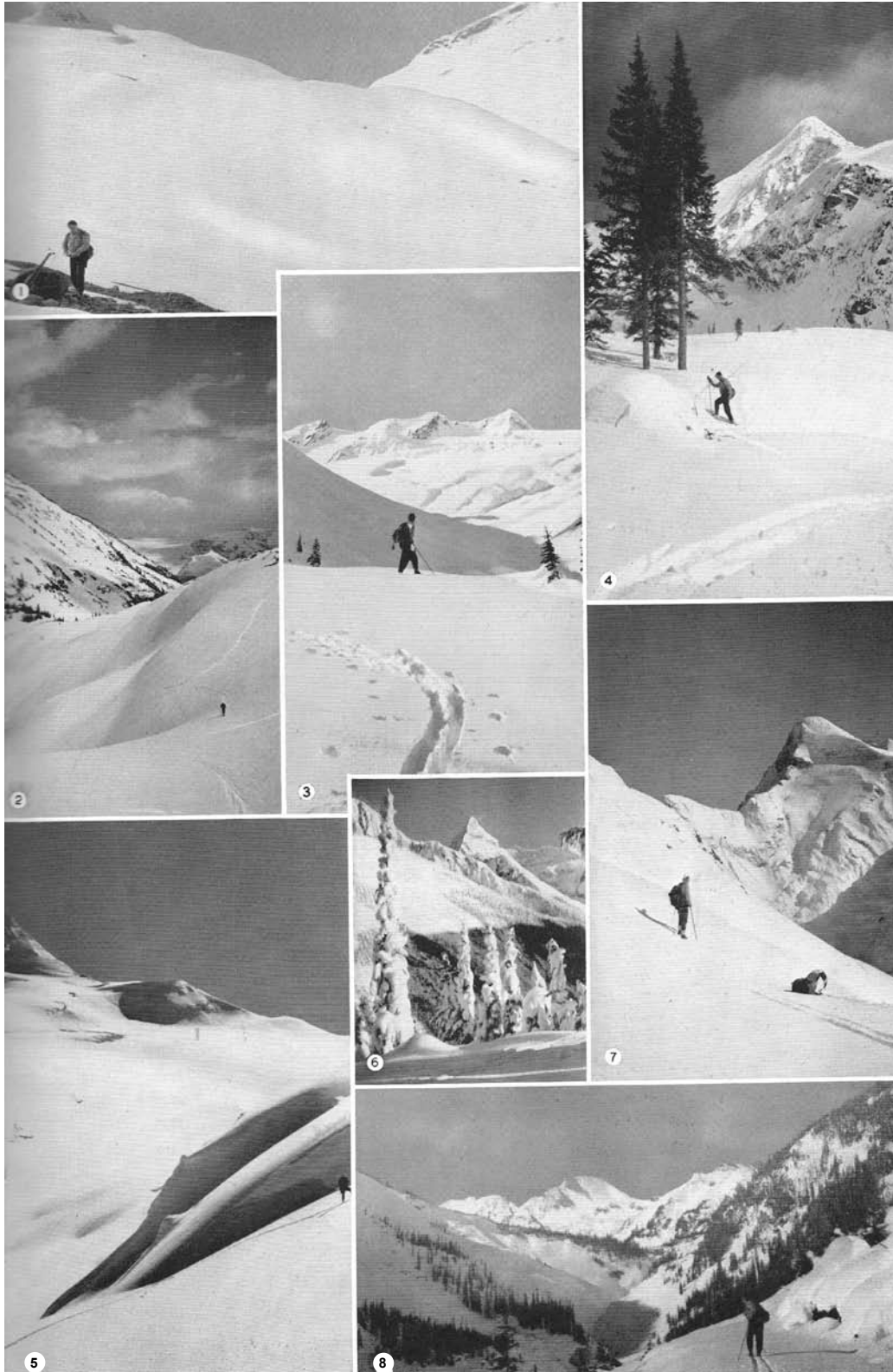
In February, 1941, Phil Edwards and I skied to Asulkan pass (7720 ft.). Unfortunately, the entire upper part of the glacier was shrouded in thick fog. We were, however, enchanted by the somewhat angelic sensation of floating downward in total whiteness, our ski tips the only visible thing. No doubt we should have felt even more uncanny had we landed in a-hole, but luck was with us. We decided to return on a clear day.

Thus, the dawn of a fine day in early March found Phil and I toiling Asulkanward once more. On reaching the head of the valley we left the trail, and turning to the west, followed a long and steep gully to a point below Castor Peak. Thence we traversed directly across the steep slopes below Castor, Pollux and Leda to Asulkan pass. This seemed to be a good deal easier route than following the trail up the moraines on the opposite side of the glacier, as we had done on the first trip. The view from the pass was positively awe-inspiring. Mt. Fox and the peaks of the Dawson group towered over us, while at our feet was the apparently bottomless gorge into which Geikie glacier descends. In the far south, Mt. Purity, true to its name, rose, a pure and shining white against the blue sky.

We descended by our uphill route, a thrilling run in perfect powder snow. The round trip from Glacier took about eight hours.

During April, Phil Edwards, G. Wright and J. Addie, a member of the B.C. Mountaineering Club, repeated the trip, this time by the trail on the eastern side of the glacier.

On May 26 Phil and I carried skis and sleeping bags up to the snow's edge, at about 5000 feet, and bivouacked overnight. At six o'clock next morning we were following the general course of the summer trail up the eastern moraines of Asulkan glacier, walking on the surface of frozen corn-snow. By 10 a.m. we had reached the summit of Snow Dome (9339 ft.), highest point of the long ridge which lies between Illecillewaet and Asulkan glaciers. It is not unlikely that this was the first ascent with skis. We had a splendid view, except to the northeast, from which quarter a strong wind blew; a thick bank of fog lay along the eastern side of the ridge. We therefore decided not to pursue our intention of crossing to the Illecillewaet glacier, and turned instead to the descent.



1. Asulkan Glacier *Photo Phil Edwards*
2. Balu Pass in May *Photo Chas. Hopkins*
3. West Side of Asulkan Glacier. Castor, Pollux and Leda in Background *Photo N. Brewster*
4. On the Slopes Above Rogers Pass *Photo Phil Edwards*
5. Asulkan Glacier *Photo N. Brewster*
6. Mt. Sir Donald in December *Photo Chas. Hopkins*
7. Mt. Fox (10,582) from Asulkan Pass *N. Brewster*
8. On the Road to Nakimu Caves *Phil Edwards*

The first drop of 400 feet was appallingly steep, and still frozen hard. Thanks to steel edges we scraped down in cautious stem-christies, but below that the sun had been at work slightly softening the surface. It was the perfect late spring snow, the kind that skiers dream about. We put our skis together and flew over the huge undulations of the glacier, down the moraines, and in a few breath-taking moments were back in the lower valley, having dropped some 4000 feet.

During the 1940-41 season we skied extensively on the open slopes which rise several thousand feet on the south side of Rogers pass. These slopes, however, are frequently swept by avalanches and should be avoided unless snow conditions are known to be safe.

In that part of the Selkirks which lies immediately around Glacier, the terrain is of an entirely different character than that in the well-known and deservedly popular ski-ing areas of the main range of the Rockies. Here there are no great expanses of open, rolling alplands, and one's freedom of movement is restricted because of the precipitous nature of the terrain. For the same reason, and also because of the heavier snowfall, the avalanche danger is sometimes severe. On the other hand, snow conditions are more reliable for ski-ing and the season longer, while winter temperatures are definitely on the moderate side. Glacier is unique in having much first-class (that is, open running of 2000-3000 feet or more vertical descent) ski-ing within a 5-mile radius of the railway station. I think the late spring ski-ing can hardly be surpassed anywhere, as snow conditions are generally good down to the 5000-foot level until mid-June.

There is much interesting territory to be explored which can be done in one-day trips from Glacier, and no doubt some of the lesser peaks can be ascended on skis. A small tent and primus stove placed at high levels would greatly extend the ski-ing area, as also would the use of the Hermit cabin and the cabins at Nakimu Caves.

Impressions of the Alpine Club Camp at Glacier

By Stephen H. Bush

The first thought which rushes to my mind as I think of this glorious camp is unworthy and low. I hear the heavy clang of two pieces of railroad iron, followed by a splendid, sonorous, moose-like cry—almost a bellow—pleasant, enticing, which invites us all to “Come and get it.” We came. We got. It was good. Again I have a strong impression of robustness of appetite, a sharp attack upon all comestibles with anxious cries for more and an eagerness which suggested the speedy exhaustion of all supplies forever. We were a brisk and hearty crew. I never saw so much disappear so soon. One looked upon a massive plateful and it was gone.

It was borne in upon me also that men are men and tend to become always more so. Indeed if some of us became any more manly, after getting back to New York City, we might have been arrested. But nothing similar can be said of women. A woman in camp ceases to be a woman at all. From her feet up, she becomes a sort of third sex. The intellect is there, of course, but little else. As for the familiar charms of face, hair, dainty foot, proud bearing, in short the ewige weibliche, so ably described by one who knew, I only wish that Wolfgang von Goethe could have seen our sturdy girls. This remark is made only to indicate the enormous native courage of women, so frequently and mistakenly decried. For any woman to forego her advantages, natural or achieved, in order to climb mountains, proves intrepidity, valor, moral courage of the high type.

Having arrived well in advance, I did everything myself to lend color and life to camp life as an overture. I did it by a bit of a traverse the day before our start, under the deceptive guidance of Norman Brewster. We went up the glorious Asulkan and looked upon the mighty ranges to the south. All enthusiasm, we swarmed up Leda, Pollux and Castor. We fell into a storm and listened to singing ice-axes. We crept trembling down the ice below Sapphire col, sat on a wet rock all night on the moraine. To cap the climax, I saw fit to splash completely under, trying to cross the swollen glacier stream to camp at five-thirty in the morning. I even explained as I stood spouting water, to the astonished Norman, that my technique for crossing streams was not very good. I give this pleasant incident a prominent place as it was my only exploit. The camp doctors sat in counsel on my case, for I was certainly sore inside. A conclave of baby doctors, X-ray men and anatomists forbade me to do more swarming for the nonce. It proved to be a false alarm, for I only had a case of sprained spare ribs which shortly—as a case—disappeared.

This trivial incident infected the entire camp. Everybody emulated me in so far as in them lay and there was general indulgence in wild nights out. People sat out going to Tupper, they sat out on Leda, Castor and Pollux, they sat out on Sir Donald, which is excusable. Two men started out for Uto, but began climbing on Sir Donald instead. To get on they were obliged to go to Sir Donald's summit and to get off again by totally unknown routes. They used all possible techniques for two days in that wilderness of ice and rock. It was, however, considered to be pure swank, when they appeared in camp still carrying a spot of lunch. So many climbers swarmed up the northwest ridge of Sir Donald that it became a commonplace. Nobody got to the lonely Glacier Circle hut, but after camp Professor Richards with Mrs. Richards (Dorothy Pilley) went over to that strange inaccessible place. It must have been a miserable summer for the grizzly bears with great troops of loud-voiced climbers spread over all their mountains around Glacier. On the advice of the ranger Bob Mann, some even sang as they progressed through the woods, on the well-substantiated theory that it causes a sharp pain in the pit of the grizzly's stomach to hear human song. At any rate few

of us saw a bear, though they are in obvious possession of the trails, lying low and cursing the human race.

The camp fire gatherings were, as always, pleasant. There was much talk, songs and many stories. It was good to have the mighty figure of Mr. Arthur Wheeler, our patriarch, with his charming wife. Mr. Wheeler told a good story of taking a fall down a glacier slope, overhanging a formidable precipice. He rolled along down, his ice-axe beating a useless tattoo on rock and ice, with Conrad Kain rushing after him in despair and in imminent danger himself. Suddenly the ice-axe caught in a crevice. It almost pulled his arms out of their sockets, but he stuck and found himself with both his legs waving in the air over the cornice of the gulf below.

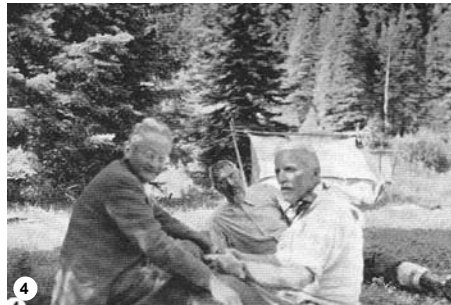
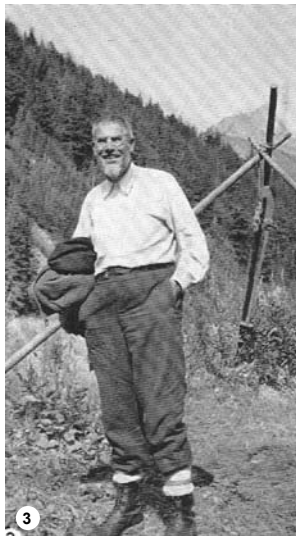
Another good one was from Ray Zillmer. Ray was making his way up a mountain beside a heavy stream. He concluded to cross. To take observations on doing so, he made his way to a high place where the stream ran between two masses of rock in a deep cleft, before falling. He dropped his pack and set his foot on the rock, weighing many tons, thinking that he might jump across. But the water had cut away underneath. The rock fell at the touch of his foot. Ray was poured down a very beautiful waterfall for a drop of about a hundred feet. It was one of those falls which shoot in short dashes first right then left. He was decanted in one grand and glorious rush in the blind turbulence of waters into a deep pool where he still had enough consciousness to swim dizzily to the bank. He decided that he was not interested in crossing that stream.

Again it was Ray Zillmer who contributed the proper answer to the question, the eternal question of profane souls—why do you like to climb mountains? Of all the occupations of man, mountain climbing is obviously the most useless and inefficient. What good does it do! What do you get out of it? Ray has the simple and final answer which is this: the fact that you ask this question at all, is final proof that you would not understand the answer.

There was considerable talk in camp on the subject of fear. Naturally some preferred to consider it *sub specie aeternitatis*. But it was generally agreed that fear is universal, a mark of sensitivity and intelligence, an integral part of the joys of mountain climbing. Our definition of fear was that it is only an anticipation of something very unpleasant. Without fears what would become of all the satisfactions to our vanity and our love of superiority?

Most of us agreed that under the terrific engrossments of climbing and climbing right, we are usually too busy to think about being afraid, but that if we had time we would be often too frightened to go ahead. In any case there was little disposition to follow the class taboo and the Anglo-Saxon tradition regarding fear—that no gentleman and no Anglo-Saxon knows what fear is. Our R.A.F. aviator Bicknell, whose resemblance to a mountain goat troubled some of the climbers, proclaimed the modern doctrine that all men are afraid, desperately afraid when in mortal danger. He thought that fighting German planes over the Channel was very alarming, constantly alarming. No explanation beyond human vanity and mass pose was offered for the general attitude of soldiers in old wars before 1914—that all good soldiers were simply animated bronze statues in battle.

Interesting as our climbers were, delightful, unpretentious and human as our life together was, it all was a small thing beside the glories of Glacier itself. Beside the tents raged the wicked, furious Illecillewaet. Far from sight of that savage stream one could hear the grinding, sinister sound of the great rocks which the river rolled eternally along its bed. Words cannot give anything which satisfies anyone who has lived in the vast splendors of the Selkirks. All mountains have a sort of personality. It is as idle to try to put it into words as to tell a third person about the soul of your dearest friend. No painter has ever captured the Grand Canyon. Rainier, easy enough to outline in a spectacular manner, still defies man to represent his majesty. Painters struggle almost in



1. Summit of Sir Donald. *Photo U.R. Fritz*

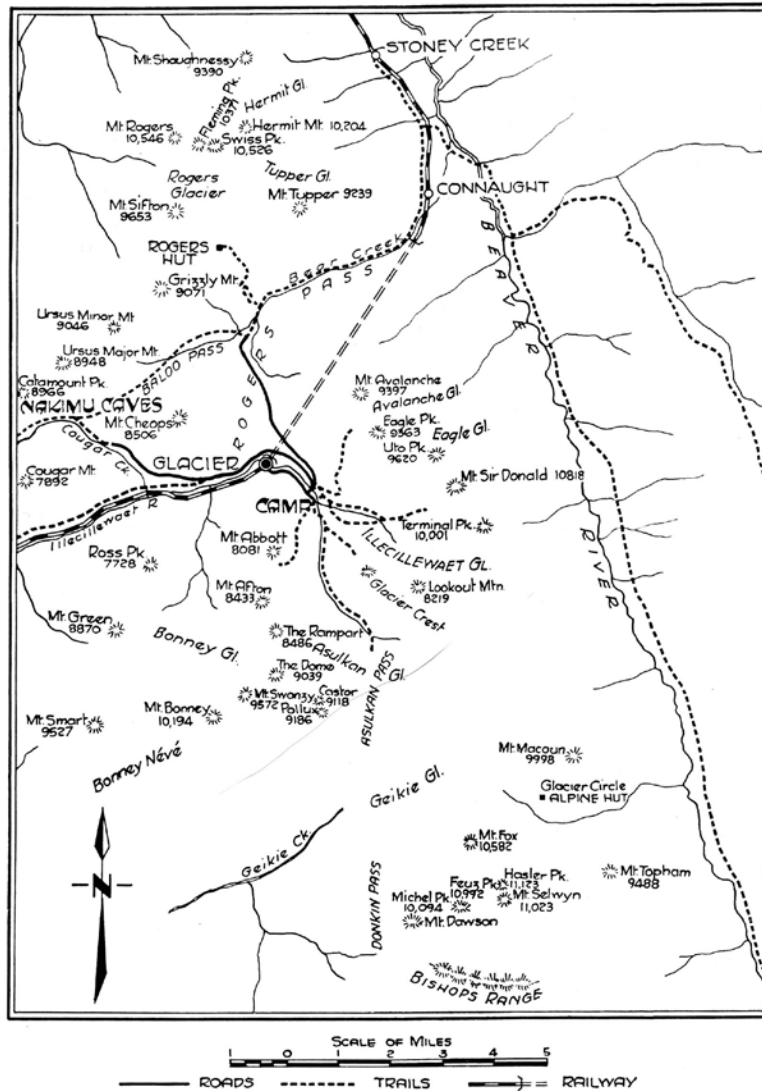
2. H.E. Sampson and G.A. Gambs. *Photo M.D. Fleming*

3. S.H. Bush *Photo M.D. Fleming*

4. A.A. Mccoubrey, S.H. Bush and H.E. Sampson *Photo M.D. Fleming*

vain over the great mountains and words follow far behind the resources of the men with paint and brush. Mr. Fred Brigden gallantly labored to give us something of the real Selkirks. Except perhaps for the Chinese masters, I for my part, got a greater thrill from his pictures than from anything like it which I had ever seen in artistic attacks upon mountains.

Nothing is so hopeless as to try to set down what Glacier and the Selkirks meant to us all. It was fortunate that we began with a few days of those obstinate, masterful rains which all mountain



Map of 1941 Camp Area

climbers know so well. There is still something grand in the sinister character of mountains in a storm. The great peaks, walled off from the world, suddenly start out of the gray wetness and look down upon the valleys. A flash of sunshine throws a fleeting glory of color and beauty on the world. Then the rain wraps everything up again in its dull cold mantle. It seems as if it were going to rain forever and ever. One remembers stories of a solid month of rain in the mountains.

When, as this summer, the heavy masses roll away and an unspeakable glory stands up before your eyes, the effect is overwhelming. Sir Donald is one of the loveliest mountains in all the

thousands of peaks in America. When one has known the bright, living, green, gray, brown, white garments of the northern mountains, something is lacking even in the grandest mountains of the south. As one approaches the tropics, mountains grow stern, hard and wicked. The colors of the rocks are strange and the naked forms of great peaks are repellent. It is true that they take sunset and sunrise effects gloriously. But there is something gone from the great mountains of Asia, Syria, Greece, Africa, our own peaks farthest south and Mexico. The northern mountains are alive and they speak to a man, where the terrible southern mountains are corpses of rock. And no real lover of mountains ever gets enough of them. Each successive visit makes them more real, more deeply a part of his own being. It happened to be my third visit to Glacier and it was incomparably the best. When one really knows and loves the mountains, they are no longer spectacles for his diversion and pleasure. Instead he himself becomes a very humble part of something greater than a man. It is in the mountains that a man can best forget himself and feel that strange serenity which comes when he is himself a part of something infinitely great. On a first visit to mountains, most people are probably a good deal troubled, overawed, disturbed by the greatness of everything and the smallness of their own personalities. It is not pleasant to feel oneself shrink and shrivel. There is something wrong and comic about the snapshot which we see so often, of a large man with a tiny mountain behind. Some people never accept the realities of mountains and some never like them. I met once, returning from Glacier, a wealthy business man who could not help bursting out and cursing the mountains. He hated them, I suppose because they put him in his place. It is a foolish thing, unless one is a great master, to try to put mountains into words. But there is no greater enlargement of soul for a human being, as I think, than to learn to know their grandeur. The mountains give serenity, poise and understanding. The little worries and agitations disappear before these living masses. In the mountains one "accepts the universe" with ecstasy.

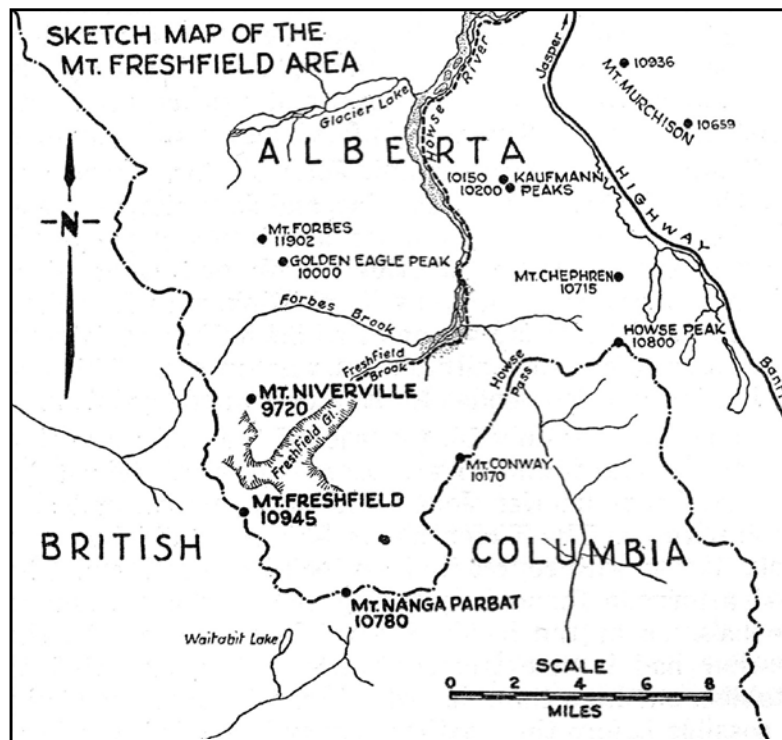
I wish that I might add some pungent and succulent personal notes. I would like to consider the idiosyncrasies of Mr. Gambs, describe properly the famous Sampson-Sibbald feud, which in spite of all that could be done to soothe and assuage, broke out again and again, the Swissness of Ernest and Bruno, the superiorities of Paula and Walter Bloch-Hiller, the wonderful Indian clothes of B. de Lacey, the prancing vigor of Dr. Beattie, the charm of Margaret Fleming, the pristinity of President Wates, of Helen Burns and our new President Brooks as well as adding judicious appreciation of the Vallances, the Kramers, Fritz, Elizabeth Thornycroft, the Prescotts (librarian mountain climbers indeed!) and so many more. And then there could not well have been more charming entertainment than that which the people of Glacier gave us at a most delicious dinner. It was a pity to be rained out of town with Major Tweedy speechless with rage over the wet tents to be packed. But these impressions must be brief. A better Alpine Club Camp I cannot conceive.

A Week In the Freshfields

By Albert T. Wiebrecht

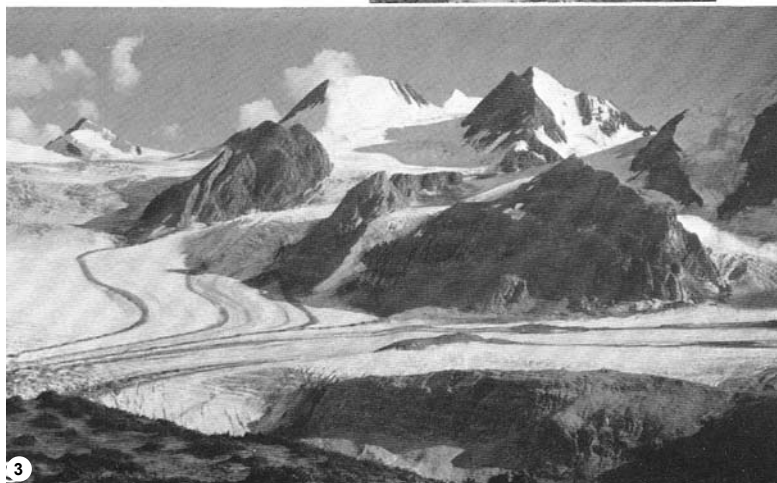
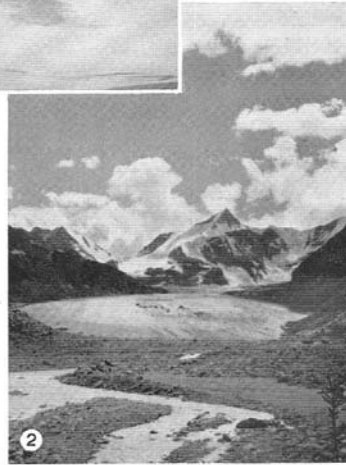
Have you ever ridden along the flower-covered flats of the upper Howse river and up through the tall balsam forest which divides Howse valley from the Freshfields? If you have stood in that amphitheatre among those same balsams and looked out over Freshfield creek to the glaciers and snowy peaks beyond, you were imbued with the desire as we were, to camp at this spot and explore the many mountains. That desire was fulfilled for us this summer.

Seven of us, Aileen Aylard, John Taylor, Laura and Leo Tiefenthaler, my wife, Pauline, and daughter, Ann and myself, left Banff on July 4 for a fifteen-day pony trip through the Castleguard, Nigel creek and Cline river country. We were outfitted by Ralph Rink, with Ray York as guide, and Bud Clawson and Red Schierling, assistants. Lou Wai, well known to all alpinists, was our cook. This trip can be highly recommended for its scenery and good fishing.



About noon on July 20, we reached the Ranger's cabin on the Saskatchewan river. Here we were joined by Edward Feuz and Ken Jones, who was to cook and also climb with us. The Tiefenthalers left us, as did Lou, our cook. It was with regret that we took leave of them. The next afternoon found us pitching our base camp among the balsams at the head of Freshfield canyon. As the weather had been extremely warm, Edward wanted to establish our high camp in order to get in as many climbs as possible before the weather changed. We left the base camp on July 22, all the party carrying heavy packs. In a few hours we were high up on Freshfield glacier. We established our high camp in a beautiful meadow to the right of Freshfield glacier. From this point the entire 180-degree panorama is visible. The Freshfield glacier resembles the handle of a fan, from which radiate many glaciers, reaching back to the encircling mountains.

Five of us, Edward, Ken, John Taylor, Ann, and myself remained here. The others returned



1. Looking West from Summit of Nanga Parbat

Photo Ken Jones

2. View from Base Camp

Photo A. T. Wiebrecht

3. Mts. Walker and Pilkington and Freshfield Icefield from Camp

Photo Ken Jones

to the base camp during a deluge of rain. After several hours the weather broke and at four in the morning of the 23rd we were on our way to Mt. Freshfield.

The sunrise was beautiful and the route followed was similar to that of the previous climbers, but due to the extreme hot weather the glaciers were bare, and the crevasses all opened. The ice pitches were so steep that we used crampons to within a few hundred feet of the peak. The views on the way up were excellent, but once on top, visibility was poor. We returned to camp in good time and the remainder of the afternoon was spent on photography. The large footage of Kodachrome movies made of this region tell the story better than I can relate. Edward suggested the first ascent of Mt. Niverville for the next day. My daughter and Ken Jones returned to the base camp while Edward, John and I started for Niverville. The route up is through delightful meadows filled with flowers. We also saw the hay crop of Conie's, piled in neat cocks, which when dry, was to be stored in their burrows for winter consumption. Two large gendarmes blocked the knife-like ridge, making the climb more difficult but more interesting than we had anticipated.

Niverville offers a fine view of the Columbia group and also Mt. Forbes. The ascent was made in four hours and as we descended the same way, the long shadows of the afternoon sun made a photographic playground of the glaciers and mountains.

While we were having dinner that evening, two goats came within fifteen feet of our camp. Late that evening Ken returned bringing freshly baked bread and supplies.

On July 25 we spent four hours on the séracs of Freshfield glacier. I have never seen séracs as beautiful and the results in movies were well worth the effort. Edward proved to be quite a movie actor.

Nanga Parbat was to be the last climb. We were up early and were well on our way before sunrise. The route is over very rough ice which has been caused by the melting from the sun and erosion of the glacier streams. It was necessary to use crampons up the steep pitches of ice until we came to the upper glacier. The crevasses being well opened, forced us to take a tortuous trail. Having crossed the bergschrund on the west face, it is a short but interesting rock climb to the peak.

The view from here is excellent. Just across the valley was lovely Waitabit lake. The Dawson range and Mt. Sir Donald were plainly visible. Nanga Parbat was first climbed in 1922, and the aluminum shaving case which contained the record had been seared by lightning in twenty places. As this was to be a traverse, we continued along the east ridge and on to the main glacier where we saw a tragedy of the mountains. A merganser duck had evidently been caught in the storm and its body still lay in the upright position in which it was frozen. We reluctantly returned to high camp.

As I was standing in front of my tent viewing the vast panorama for the last time, I had but one thought:—"What an ideal spot this would be for the annual camp of the Alpine Club of Canada." Early Sunday we broke our high camp and returned to the base camp where all preparations were made for our return trip to Banff. We were at the Saskatchewan bridge by three-thirty and while we were waiting for our bus to Banff, we all decided that this had been our most enjoyable holiday in the Canadian Rockies.

Unclimbed Peaks in the Canadian Rockies

By J. Monroe Thorington

In this paper it is intended to consider, as far as possible from personal observation, the more important unascended peaks in the Canadian Rockies. In days when climbing is no longer within the reach of all those who desire it, one may well take stock of what is left to be done, as a possible stimulus toward future activity.

In the early days of climbing in Canada, and, indeed, up until the end of the first World War, first ascents were not highly thought of, for the simple reason that here was a new country and few peaks had felt the foot of man. After the war, the accessible new climbs were fewer, but in the more remote groups there were still clusters of them which could be done in a single season. This is no longer the case; first ascents have become isolated objectives, and climbers are turning naturally to new and more difficult routes on the summits near at hand.

A considerable number of the higher peaks fell before 1920, due to the activities of persistent explorers such as Collie, Outram, Wilcox and others, but there were two of the four 12,000-foot peaks which, because of their remoteness, did not succumb until 1923. In fact, no single climber had reached all four of these peaks until 1938, after the Lake Louise-Jasper highway was completed.

In the third edition of the *Guidebook*, Howard Palmer and I deplored the coming of this road, chiefly on the ground that the destruction of wilderness values within a park area was out of proportion to the only moderate increase in accessibility of climbing areas. We were told, however, that few young Canadians would agree with this, and that the road would allow them to reach points from which only short back-packing would open hitherto inaccessible areas. Be this as it may, the fact remains that, except in the vicinity of the Columbia icefield, where little or no back-packing is required, very little new climbing has resulted from the presence of the road.

Aside from this, there are several reasons why certain unclimbed peaks remain in their pristine state: (1) climbing difficulty, (2) difficulty of approach (which is not always remoteness), and (3) lack of knowledge as to whether a given peak has been climbed.

In considering the unascended peaks discussion will follow the watershed from south to north in the groups as outlined by the *Guidebook*, giving first place to named peaks exceeding 10,000 feet in elevation.

There are no unclimbed major peaks south of Crowsnest pass, and, in the Tornado group the principal remaining attraction is Mist mountain (10,303), situated west of Mist creek (Highwood river) above its junction with Storm creek. It lies east of the watershed, and the long journey to Elk pass would make it an insufficient reward. However, three miles northwest is Storm mountain (10,250), not to be confused with the Storm mountain at Vermilion pass.

In the Joffre group, Mt. Marconi (10,190) is a little too far on the western slope to be attractive, but Mt. Northover (10,190), on the eastern side, should be rewarding to a party travelling this far south.

In the Sir Douglas group, Mt. Monro (10,145), although on the western slope, is but three miles east of Palliser pass. In the Royal group, adjacent to the west, Mt. Prince John (10,570), is the only one untouched.

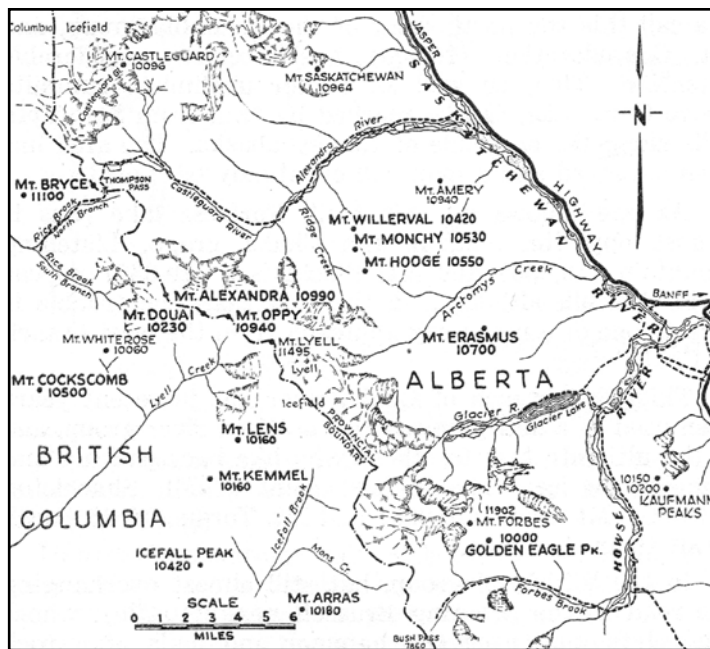
The Kananaskis group contains three peaks worthy of attention: Mt. Sparrowhawk (10,200) and The Tower (10,200), west of the river, and Fisher peak (10,015), to the east. These

might be ascended in combination with a fishing trip at Spray lakes, reached from Banff or Canmore.

There is some uncertainty as to whether Allan peak (10,627), in the Ottortail group, has been climbed, and its height recommends it to the attention of a climber camped in Ice river valley, but, on the whole, it will be seen that the region south of the Canadian Pacific has had its share of attention.

Although the wall of the Yoho-Waputik group contains a cluster of summits (all under 10,000 feet) between Mt. Breaker and Howse peak, they are hard to approach rather than high or difficult, and one will probably best attain them from the Blaeberry side. In the northern part of the group south Kaufmann peak (10,150) will afford a long and not easy rock climb for anyone willing to walk to its western base on Howse river.

In the Freshfield group the unclimbed peaks are far away, and will require an advanced camp unless one is a phenomenal walker. Mt. Whiteaves (10,300), Mt. Helmer (10,045) and Pangman peak (10,420) are on the watershed, the latter subject to snow avalanches on its northern



face, which seems the only reasonable approach. Mt. Cairnes (10,120), although a distant outlier, is best reached from the icefield; while the north summit (10,800) of Mt. Mummery (quite a prize) should be approached from the low level of Blaeberry river.

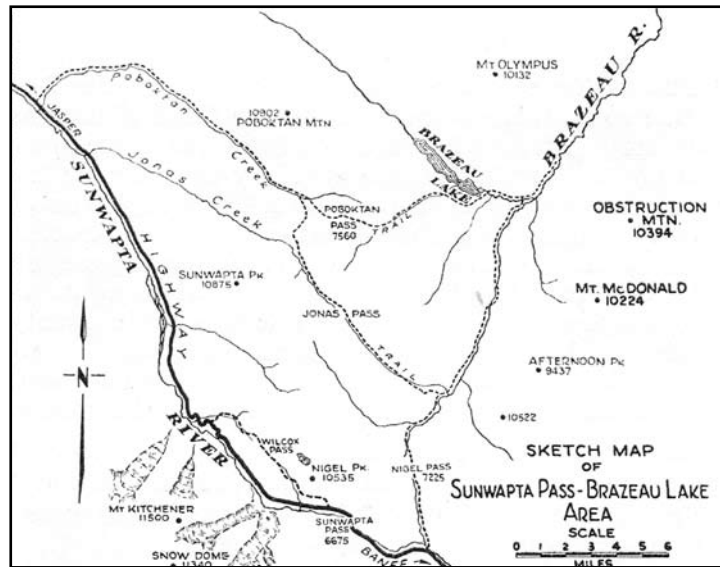
Strangely enough, there is no record of an ascent of Mt. Drummond (10,300), in the Pipestone group, nor of Mt. McConnell (10,100), although the summer season at Skoki might be enlivened by attempts on these peaks.

Coming to the Forbes-Lyell group one finds more to be done than in any other area. Why, Canadians and others, was Mt. Erasmus (10,700), standing just across from the road, not tackled before the North Fork bridge burned in 1940? Now Howse river must be crossed to reach it.

To get to Mt. Arras (10,180; Collie's "Snow Peak"), one will have to go up Forbes brook (Golden Eagle peak, 10,000, is on the way) and cross Bush pass to bivouac on the alplands at the source of the south branch of Bush river. Unclimbed Icefall peak (10,420; the lower summit of Bush mountain) stands opposite, across the canyon of Icefall brook, but it can only be attained by

the boat route on Bush river used for the higher summit. The peaks on the west side of the Lyell icefield—Mt. Lens (10,160) and Mt. Kemmel (10,160)—will take long legs, but can probably be approached from the same high camp as the Lyell peaks, with probably an additional advanced bivouac. On at least one old map there are two additional peaks shown in this vicinity—Duplex mountain (10,000) and Mt. Ego (10,000)—which we list with some doubt as to their actuality.

We come next to summits of this region which must be approached by way of Alexandra river. Mt. Willerval (10,420), Mt. Monchy (10,530) and Mt. Hooge (10,550) rise east of Ridges creek and south of Mt. Amery. It is strange that, being within easy striking distance of the road, they have failed to attract. The horse trail is on the north side of the river. Mt. Douai (10,230) and Mt. Oppy (10,940) are visible over the Alexandra glaciers as one continues up the valley, but a frontal attack on these peaks is almost out of the question, and the best route would seem to be



from the south branch of Rice brook after crossing Thompson pass, through the col between Mt. Alexandra and Mt. Whitrose. From the same approach one could investigate the north summit of Mt. Alexandra, called on some maps Queens peak (10,990). Mt. Cockscomb (10,500), immediately to the west, is another worthy objective.

When Outram made the first ascent of Mt. Bryce he chose a long and difficult route, starting from a bivouac above Thompson pass. He traversed the eastern summit, but skirted the central peak in order to attain more rapidly the higher western point. So it happens that the central peak (11,100) of Mt. Bryce is the loftiest unclimbed summit in the Rockies. Rice brook is the logical approach, by the route used in recent years. This is the chief remaining problem near the Columbia icefield, although there are some interesting things to be done in the converging Sunwapta-Athabaska angle, north of Mt. Alberta. We call this the north wing of the Columbia group, and Mt. Confederation (10,000) has received considerable attention. This, as well as higher unclimbed summits above Gong lake, can be reached by trail from Sunwapta falls along the east side of the Athabaska. The area has been surveyed and a map will eventually be issued.

As one follows up this trail, Fortress lake pass is almost opposite, and, in the Chaba group, Listening mountain (10,330) and Mt. Blackfriars (10,330) appear to be difficult, although, in the first case, the trouble is largely one of a necessary approach from the west branch of Chaba river.

This west branch of Chaba river has in recent years been used as a new gateway to the

Wood river group, and is the ultimate test for those who like back-packing and camping on ice. The highest point of Mt. Shackleton (10,800), Mt. Odell (10,300) and Mt. Tordu (10,660) still await their stonemen.

In the Whirlpool group, but still almost overhanging the road, is the towering Brussels peak (10,370), whose final cliffs may need the hammer and nails of a rock engineer.

Turning toward the east, there are still some unvisited summits in the northern part of the Murchison-Cline group and the southern margin of the Maligne group. Mt. Loudon (10,550), Mt. McDonald (10,224) and Obstruction mountain (10,394) rise above Maligne river sources, whose valley can be attained from the highway by crossing Nigel pass.

There are few unclimbed peaks of importance north of the Canadian National Railway. In the Resthaven group, Barricade mountain (10,400) is probably less accessible from Jackpine river than by following Smoky river from Robson pass and entering Resthaven icefield by way of its eastward-draining tongue.

Finally, for a long journey, there is Mt. Ida (10,472), rising immediately south of Jarvis pass in the Sir Alexander group.

Unnamed mountains fall without the scope of this paper. There are a number above 10,000 feet, most of them in the southwestern part of Jasper Park. The Geographic Board of Canada has been slow in reaching decisions on these, seemingly unaware that a name acts as a magnet to a mountaineer. In days to come, when such matters come to its attention, we shall hope for a nomenclature which does not include names of obscure Norwegian fishing villages, Libyan oases or politicians who have never ventured beyond the city canyons. Let it not forget the richness of such names as Assiniboine and Saskatchewan.



1. Mt. Akasik from the Slopes of Nikaia Mtn.

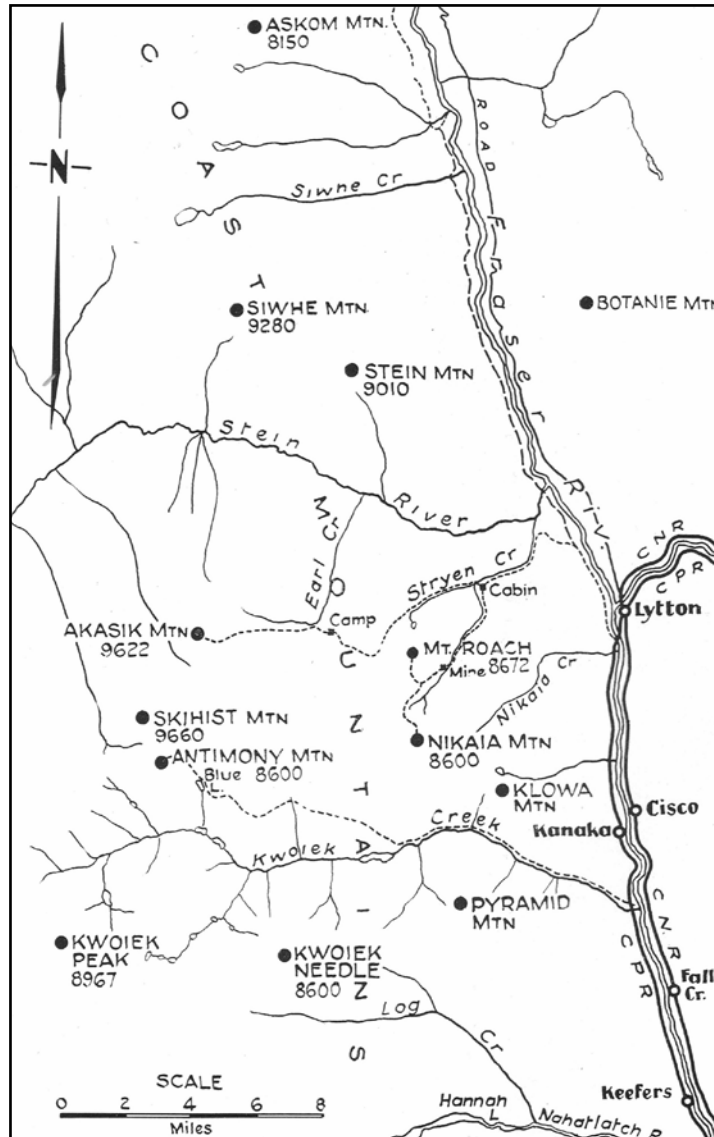
Photo W. Mathews

2. Mt. Skihist from Mt. Akasik

Photo C. Ney

3. Mt. Skihist from the Summit of Nikaia Mtn.

Photo W. Mathews



Sketch Map of Area West of Lytton, B.C.

Climbs in the Lilloet Range

By W. H. Mathews

Plagued on so many previous occasions by the foul weather so characteristic of the western Coast mountains in the spring, Charlie Ney and I had resolved to seek new fields for our climbing endeavors. Many times during the course of our work in the southern Interior plateau of British Columbia, we had looked west to the eastern "front" of the Coast mountains¹ here a row of gleaming peaks, each one stimulating interest. In this area, moreover, the annual precipitation was low, possibly twenty to thirty inches per year (ten inches at Lytton, a few miles to the east) instead of 100 to 150 along the coast. Here, we decided, was to be the scene of our 1941 climbing.

Though comparatively few people had ever entered this section of the Coast mountains, information on it was comparatively easy to obtain. The late G. M. Dawson and his assistant Mr. McEvoy as early as 1890 visited the eastern fringe of the mountains climbing Klowa and Askom peaks. In 1931, Frank Smith of the Vancouver section of the Alpine Club along with Jack Betts and Bill Henderson of the B.C. Mountaineering Club spent a week in the southern part of the range climbing Kwoiek Needle. In 1935 a party of the Topographical Survey of Canada took observations in this area and produced a reconnaissance map. We were fortunate in obtaining from Ottawa a number of the photos from which this map was made, from which we were able to plan our routes. In 1938 the Kamloops Outdoor Club held a summer camp at Blue lake, near the main fork of Kwoiek creek and among other things climbed "Antimony mountain," a peak 8600 feet in elevation and one and a half miles south of Mt. Skihist² the highest peak of the area.

A member of this party, V. C. Brink with whom we were familiar, visited the headwaters of Stryen creek just a few weeks before our own trip and was able to advise us of the condition of the snow, the trails and the cabins. Best of all, Charlie himself had worked for a whole summer at a small gold prospect, "the Lytton Gold Mine" a few miles west of Lytton and was, therefore, thoroughly familiar with that area. Even with all this assistance, we had still a great many uncertainties with which to cope and difficulties to overcome before we could reach our appointed goal—Mt. Akasik.³

On May 27 Charlie, Bruce Dickson and I bravely set forth from Lytton station at the early hour of 4.30 p.m. Already a C.P.R. trainman who had hunted west of Lytton had done his best to discourage us and the station agent had given us a blessing he said we'd need. Undaunted, we crossed the Fraser river by a crude ferry and hiked on eight miles, in the fading twilight, over road and trail to a cabin at the forks of Stryen creek.

Next morning the foul weather we had striven so hard to avoid had descended upon us. In a comfortable cabin, we took this opportunity to sleep in. Towards noon, however, the rain died down and as our plans had been demolished, we decided to visit the scene of Charlie's earlier activities,

1. The eastern front of the Coast mountains lying between Lilloet and Hope is known as the Lilloet range. The southern part of this range, south of Nahatlatch river possesses only one or two peaks of any significance, but the northern part contains no less than three peaks over 9500 feet, nine more over 9000 feet, and innumerable over 8000 feet.

2. In the account of the ascent of Kwoiek Needle, a short note (*C.A.J.*, Vol. XX, p. 40) is given of the ascent of Skihist by Mr. J. P. Forde. Inasmuch as the peak described by Mr. Forde lay within twenty-four hours' journey of Pemberton Portage (at the head of Lilloet lake) and Skihist is no less than thirty-five miles distant over particularly rugged terrain and nine thousand feet above the portage, this must be a case of mistaken identity.

3. Pronounced Ak-ah-sick'. This peak was referred to on Dawson's map as Pet-loosh-kwo-hap.

the Lytton Gold mine. Within two hours we had climbed from the canyon of Stryen creek up into the great hanging valley of the south fork and several miles back to the mine. Here we again had to evade the weather by taking shelter in the bunkhouse. After a light lunch and an hour of muttering, while the rain changed to sleet, we ventured out and started climbing Mt. Roach directly above the mine—an obviously stupid move. As we climbed, however, the air became colder and the snow no longer clung to us in a sopping mantle. By the time we reached the summit, over trail and easy rock, we were perfectly dry and, because of our exertions, perfectly warm. When the clouds broke suddenly revealing to us the Thompson river some eight miles away and eight thousand feet below us, our efforts were duly rewarded. Returning from my reverie to a cold mountain top at five in the afternoon, I discovered Charlie and Bruce consuming our distinctly limited supply of honey at a simply appalling rate. Naturally I had to follow suit and in five minutes we had cleaned up half a can of it. Refreshed we hurried our descent and reached the cabin at the forks just before dark.

The following day as usual started with rain and again, in the late morning, the weather cleared. Hurrying to take advantage of the bright spell, we got under way about noon. After seven hours' travelling, we had climbed to the lip of the hanging valley of the north fork of Stryen creek, hiked southwest along it for four miles, then two thousand feet up its northwesterly slope, across a snow-covered pass and down a thousand feet to the floor of a forested cirque. Here we camped for the night, within striking distance of our goal.

Next morning the weather departed from its usual custom—it was merely dull. Unaccustomed to early rising so far this trip, we only managed to get away by nine. We descended some 1500 feet to Earl creek directly below camp through rather passable woods (for the Coast mountains), crossed the creek with little difficulty and climbed rapidly to the open country near timber line. From this point we hiked two miles west, partly on snow, partly on meadow, reaching the base of Akasik at one. By this time the sky had cleared; avalanches thundered incessantly all along the precipitous south wall of Earl creek valley. On the valley floor and on benches on its northern slope where the snow lay deep, it had become very soggy and presented very tiresome hiking. On the steeper south-facing slopes, however, at the same or even higher levels, the snow had either completely disappeared or was much more compact. On the peak itself, we were pleased to find only two or three inches of fresh snow mantling the rocks which nowhere presented any great difficulties. We reached the eastern cloud-capped summit shortly after three to find, looming out of the fog on the centre peak a short distance away, a huge cairn, obviously erected by the Topographical survey. A little disappointed to find it was not a first ascent we were nonetheless rewarded in a few minutes by the view unfolded before us as the cloud-cap drifted aside. A few miles to the southwest Mt. Skihist presented a great steeply-sloping snow-covered face. To the west, peak lay beyond peak for miles, all reaching a uniform elevation of 8000 to 9000 feet. To the southeast lay the symmetrical pyramid of Kwoiek Needle and to the east the great ridge culminating in Roach.

After an hour's sojourn on the peak, we enjoyed a marvellous glissade fully 1500 feet down a couloir on the south slope of the mountain, then hurried back to camp arriving just at sunset.

For the morrow we had ambitious plans, to cross south to the north fork of Kwoiek creek and past this to the Blue lake trail. The weather decreed otherwise, it rained. In spite of fog and mist which persisted late into the afternoon we retraced our tracks to the forks of Stryen creek where we could be sure of dry and comfortable quarters.

An encouraging dawn got us up at six, but less encouraging clouds kept us indoors till ten. At that time Charlie and I resolved to climb something anyway and chose the bold peak (the name Mt. Nikaia is proposed for this peak) dominated by a huge monolith at its summit (actually

on the summit ridge about forty feet below the summit) situated at the head of the south fork. As we passed the Lytton Gold mines, the weather cleared. Becoming apprehensive of avalanches, we chose a devious route up the northwest glacier towards the summit ridge. Though this route involved a short but uncomfortable stretch beneath overhanging cornices, we were reassured when we reached them by the complete absence of snow-slides on the whole north face. On the way up I foolishly remarked that the south face of this mountain would have the same gently sloping, bouldery surface possessed by all the other peaks of the area. When we were within ten or twenty feet of the rocky summit ridge, Charlie who was leading told me I must be crazy, he could see daylight between the blocks of granite. Sure enough, the south side of this ridge was the precipitous headwall of a cirque. To reach the summit we were forced to scramble along the knife edge between the cornices on one side, the precipice on the other. Fortunately the great blocks of granite provided excellent handholds and footholds and offered a comparatively easy though spectacular route to the top. We were somewhat gratified to find on the summit no evidence of previous occupation and on the strength of our exploit constructed a small cairn. Delaying in a bitter wind only for some photos, we hurried back to the cabin reaching it, as usual, just at dark.

Our journey was ending and, as if to console us, the weather repented. Shortly after lunch we left the cabin for Lytton, stopping only to examine a huge boulder on one of the talus slopes, a block of granite fully one hundred feet in height. At Lytton we caught the train for home taking with us memories of an expedition where with all our efforts we never failed to get a full night's rest or to get back to camp before sunset.

Geological notes. Except for a band of Cretaceous sediments along Fraser river, all the rocks from that point to within a mile of Akasik consist of granites, often gneissic, with occasional small highly metamorphosed roof pendants, a few basic segregations and innumerable pegmatite dikes. Just under a mile east of Akasik a small body of serpentine, apparently derived from brecciated volcanics or shallow intrusives was encountered. The peak of Akasik is composed of schists, mainly of sedimentary origin, as is apparently the peak of Skihist. About a mile west of Akasik is the eastern limit of a second area of granite.

The extensive high plateaus between Stein Mt. and Askom Mt. as well as a number of the accordant summits west of Akasik may be taken as relicts of an original uplifted land surface of low relief now deeply dissected by rivers and glaciers. Evidence of glacial erosion is well marked below 6500 feet but above this level there is a marked absence of erratics or till. The south slopes of the peaks are covered with a mantle of boulders and soil plainly of local origin. The presence of glacial striae etc. at much higher elevations in the Interior plateau a few miles to the east however indicates that in the last ice age, the glaciers welled up to a level of not less than 7500 or 8000 feet. In the Lillooet range at this climax of the ice age, it seems probable that because of the proximity to the "ice divide" the glaciers were relatively stagnant and incapable of any extensive transportation and erosion. On the retreat of the ice from the Interior plateau much higher gradients and, therefore, higher velocities were possible in the mountain glaciers thereby permitting the extensive erosion below 6500 feet.

Early Explorations in the Coast Mountains

By W. A. Don Munday

Romance of exploration has lingered longer in the Coast mountains than in the other alpine ranges of British Columbia. Early fur traders seemingly felt little need for passages through the Coast mountains. Even now between Howe sound and Skeena river only the incomplete Bella Coola road penetrates the range.

As the Coast Indians were such notable sea travellers the Hudson's Bay Company had not even found it necessary to place many trading posts along the coast of the mainland.¹

When the gold rush to Fraser river began in 1858 the residents of Vancouver Island and the mainland shores were for the most part—from Governor James Douglas down—servants or ex-servants of the Hudson's Bay Company.

Governor Douglas thus easily commanded all available knowledge of explorations in the Coast mountains when commercial rivalry on the part of the city of Victoria, as well as needs of the miners, called for a cheaper, easier route to the upper Fraser river than by way of newly founded New Westminster.

If such a route existed it must cross the Coast mountains. "Major" William Downie (he lacked military rank) was foremost and most persistent of those explorers working with the governor's approval.

Douglas wrote to Sir Edward Bulwer Lytton, secretary for colonies, on March 25, 1859:

I have for some time past had in the Government employ a respectable Scotchman, named Downie, one of the most successful miners in California, and known all over that state as Major Downie, the founder of the town of Downieville. He accompanied Mr. M'Kay last summer in his overland journey from Harrison's river to Howe's Sound. He has since explored Jaryis' Jervis Inlet, where he spent the greater part of the winter, and lately made an excursion with Indians into Desolation Sound, which he has in part closely examined with reference to its mineral character. He thinks favorably of the country, and proposes crossing the mountains from the head of Jarvis' Inlet into the valley of Fraser's River as soon as the snow disappears from the mountain passes . . . Mr. Downie has no fixed salary, but I undertook to furnish him with provisions and other means of travelling, provided he reported on the state of the country for the information of Government. He is not therefore expensive to the Colony, and may possibly, from his practical knowledge of mining and enterprising turn of mind, make some valuable discovery, and will at least contribute much information respecting the mineral character of the country. (Provincial Archives).

Downie was born in Glasgow in 1819, raised in Ayrshire, and his schooling seemingly ended when he was "old enough" to go to sea on a coastal boat. Seafaring eventually took him to lakes Erie and Ontario. Then he drifted into the lumber business in Buffalo. He threw this up to join the California gold rush.

"I believe I was the only foremast hand who received any wages," he remarks thriftily of his voyage to San Francisco.

Like so many miners, he often left good claims on the chance of finding richer ground somewhere beyond. Unlike so many, he prospered. News of gold on the Fraser brought him to Victoria in July 1858. True to his nature, he again sought untouched fields for prospecting, but this time with the government "grubstaking" him.

1. Posts along the eastern coast of Vancouver Island served the adjacent mainland northward from Fort Langley on Fraser river.

Like all explorers, Downie had some measure of liking for exploration for its own sake, and he soon developed an ambition to find a route through the Coast mountains for the already proposed trans-continental railway. He sometimes forgot his own degree of self-interest, as in the following:

The reader . . . will also perceive the anxiety and vigor with which these explorations were being pushed, for the sole purpose of affording greater travelling facilities for the miners, who, coming from Victoria, made the upper Fraser their destination. At that time when the exact course of the Fraser was but imperfectly known, it was naturally to be supposed that there would be some way of making a cross-country road to the gold fields. (P. 259, *Hunting for Gold*, by Major William Downie, California Publishing Co., 1893).

Quotations from Downie's book will be indicated by page number unless context makes this clear. Other quotations are from documents in the Provincial Archives and information collected for me through the kindness of the archivist, Mr. Willard E. Ireland. Downie's first expedition seems to be the earliest record of an occurrence which is still a matter for conjecture among visitors to Garibaldi Park. Downie wrote the report, although he was possibly an assistant to J. G. McKay. Their aim was to examine an alternative route connecting Howe sound with the Harrison lake-Lillooet lake-Anderson lake route to the upper Fraser.

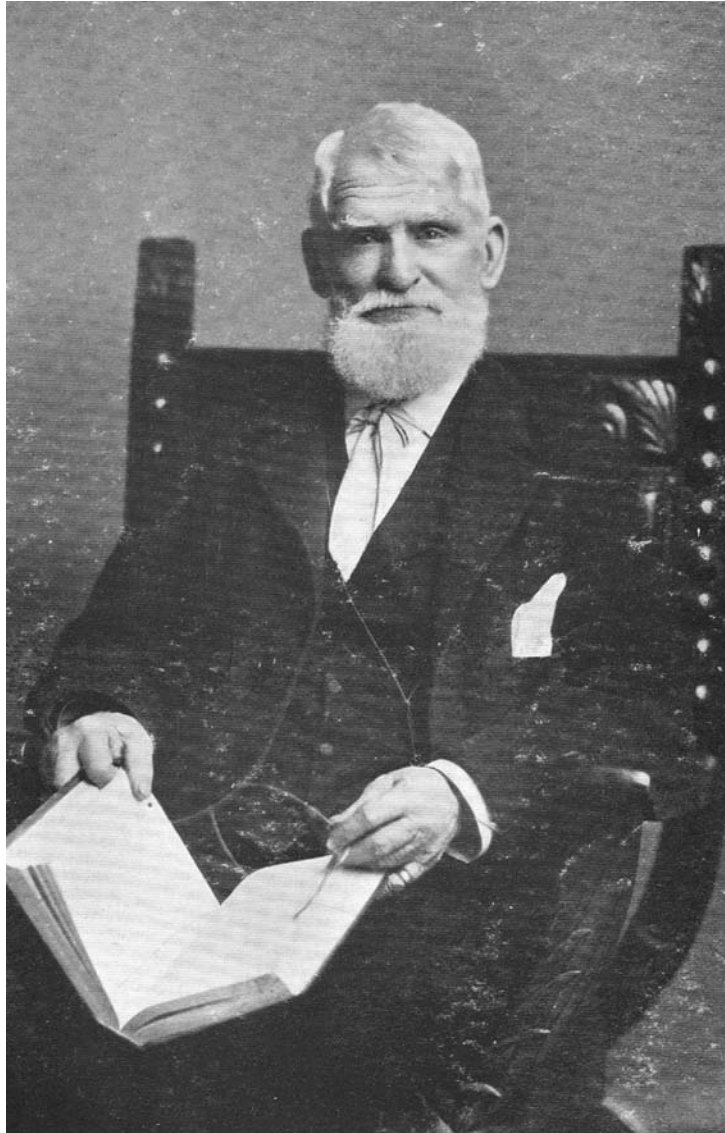
They left Fort Langley Sept. 1, 1858, took the Harrison route, and, on the 8th, by way of Green river reached the still unnamed pass at Alta lake. On the 9th they started down Cheakamus valley (properly four syllables; *Tsee-ark-a-misht* seems close to the original pronunciation). There was some sort of trail. (About 1876 the "Pemberton Trail" was built by this route, reaching the present harbor of Vancouver by way of Seymour creek, but never being used for its main purpose of bringing cattle to the coast).

Downie's field notes are distinctly different to those prepared afterwards. Periods or capitals rarely mark end or beginning of sentences.

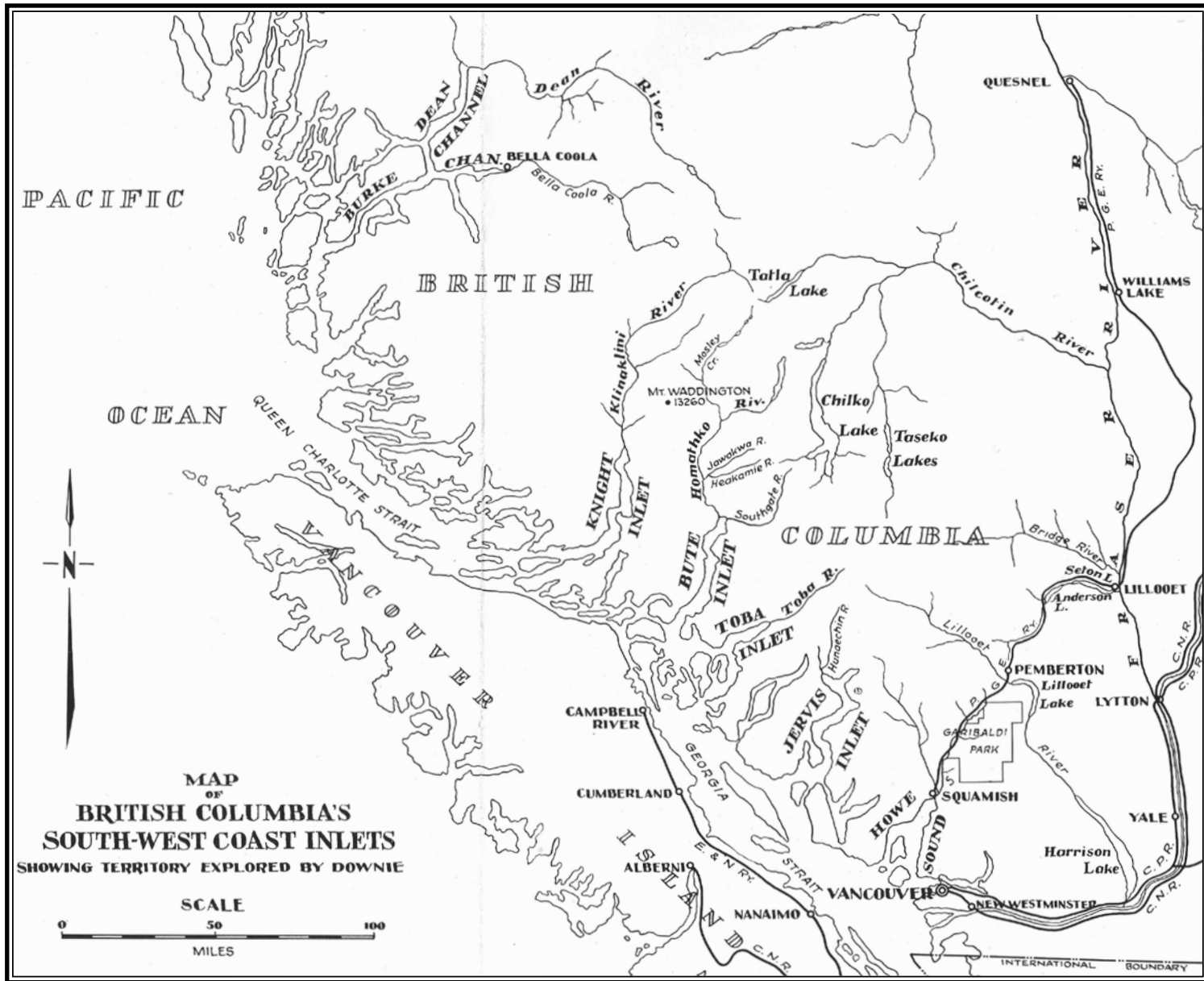
On Sept. 9 the party reached a section of Cheakamus river known now as the Stillwater. about noon we struck into a lagoon, or a large tract of overflowed land, the Indians say this was overflowed three years ago we found the cause of it as we came along, a Lake has broken away in the mountains, and swept away ridge, after ridge, covering a whole forest of timber, with rocks and sand for a space of 6 or 7 square miles, changed the course of the river, and not left a stump to be seen, where the tall timber stood three years ago, our trail over this was about two and a half miles, we would like to go up and have a look at the sides of the mountains where they were cut away, but we have no time as our provisions are getting low, and we don't know where we are going, camped at a small stream near the land slide,

No trace has been found of this former lake in Rubble creek valley below the lofty lava barrier which dams the upper valley and retains Garibaldi lake. In 1913 a bridge used during railway construction utilized as piers nothing but old tree trunks standing in the new channel being cut by Cheakamus river. Forest growth has now hidden most of the devastated area.

The explorers made their way through Cheakamus canyon, and approached an Indian village near the fork of Cheakamus and Squamish rivers. Downie's report gives a less spirited description than his book. Apart from a few touches which suggest Mr. Chris Waage's editing, the book account is probably authentic, and the squaw incident rings true. Where marked tendency to romancing appears in the book it always smacks of the "litterateur of some note," not notably of Downie. With a man who is not a facile writer it would be expected that a second account would bring out things omitted from the first, which, after all, did not profess to record more than he thought would interest or impress the governor.



William Downie in His Later Years
Photo Courtesy of B.C. Provincial Archives



We got a right royal reception when we approached the first Indian village. The whole population came out to meet us, but the welcome was sent per musket ball, and we did not care for it. Some of the braves mounted a pile of wood and continued pointing their guns at us, but I realized that the first sign of fear would mean death to us and told McKay so. (P. 206). Linked arm in arm, we marched bravely forward, and when we reached the base of the stack of wood, we held out our hands for them to help us up, which they did in a mechanical sort of way, apparently taken aback by our cool demeanor. My eye caught sight of one old dame, who carried a long bag, apparently containing lumps of something. My curiosity was aroused, and, thinking that it was gold, I made up my mind to lay siege to the goodwill of the ancient beauty; but I entirely lost my ambition in that direction, when I saw her opening the bag a few minutes later and take from it a number of musket balls, which she distributed among the young braves, that they might make holes in us . . .

After awhile, we succeeded in making friends with the Indians, who were known as the "Unamish," [Squamish] and were considered a treacherous tribe.²

Downie's report continues:

McKay got a canoe in exchange for a musket and we embarked in our frail leaky concern eleven of us the water coming in pretty fast made us feel rather uncomfortable when we came to the rapids

The report tells how they paid the same price for another canoe, but the book says they took the canoe and left a musket. The owner overtook them and had to be appeased. Downie admits "I did not relish our navigation very much." Presents had to be given at villages, and the villagers "had a disagreeably insinuating way of hanging over the gunwale of our canoe with big bowie knives in their hands ... on the occasion of my first introduction to these people, their manner of approaching strangers offended my sensibilities."

Within a few years the power and pride of the coastal tribes was to be broken by smallpox and other epidemics introduced by the white men; some tribes no longer had a separate existence. But at the time Downie came down "Le Quamish" river, the fact of Governor Douglas' rule having been extended to include the mainland had not been impressed on the Indians.

Downie's report records:

passed another Indian village gave them some tobacco and passed on here they had their muskets out ramming the balls down, as if they were going to blow us out of the water

On reaching Howe sound, as they were anxious to get down without being troubled by the Indians, they started about midnight. At the mouth of the Sound they met a sailing vessel, and a marginal note observes "Where we have been treated Gentelmanly by Capt Stewart Dr. Benson and Mr. Horne.³ Next day they sailed for Nanaimo, from which Hudson's Bay Company post Downie a little later outfitted for his Jervis inlet explorations.

Downie says it was Governor Douglas' idea that a road might be possible from Jervis inlet (p. 209). The fact that Adam G. Horne accompanied him seems to imply that the Hudson's Bay Company shared the Governor's interest. Downie left Nanaimo on Oct. 11. Part of the intervening

2. Saturday 11th . . . came upon two Indians in a canoe who jumped on shore and grabbed their muskets upon seeing us we got them to come over to us and they carried our packs in the canoe clown to a point where we had a mess of Salmon they told us it was two miles to the village so we started for it on nearing the village fired a couple of shots, and we could see that this created quite a consternation as they came running out shouting and cutting up all sorts of capers ramming the balls down in their muskets & they got up on a log to stop our going further but we marched along, taking little heed of them up to the village, took of our packs and rested selves untill they got over their powwowing

3. Capt. Chas. E. Stuart, at this time in charge of the H. B. Co. post at Nanaimo; Alfred R. Benson, M.D., in the service of the H. B. Co. 1857-62; Adam G. Horne, also in the Company's service at Nanaimo, and said to be the first white man to cross Vancouver island by way of Horne lake.

time had been spent in a visit to "Gold Island," the westerly one of the Thormanby islands, where a few specks of gold had been found.

the Le Sheathe Indians used to live here until about three years ago the Simpsons [Tsimpsean, Tsimshian] came upon them one night and cut off forty seven of their number since that time the island is abandoned by them . . . But as we proceed eastward up Jarvis [Jervis] inlet the granite is passed and then comes in slate of every description on edge (which is the way it ought to lay in a gold country) forming mountains that rise perpendicular from the water's edge⁴

I do not expect to find much mineral of any description until I get away eastward beyond this coast range of mountains, glaciers, and barren rocks . . . I will here make mention of a little incident with regard to the Indian name of this inlet that is Le Sheath Le is great in English and Sheath is road so here we have the Indian name, great road pointing us to this Inlet as the great highway into the interior of British Columbia taking courage at this little coincidence we are inspired with new hope to push forward with vigor, and do what we can to get a road.

Arrived at the Indian village [at the head of the inlet] we were welcomed by the Indians all of them coming out shaking hands with us and crossing themselves this I looked upon as quiet an improvement, upon taking aim at us with their muskets they are poor here being poorly clad

Friday 15th we left the Indian village with nine Indians all packed with provisions Mr. Home intends sending them all back except the guides when we cross Le Quamish as we intend to cache some of the provisions the trail we have come along this afternoon is very good . . . we have come about eight miles this afternoon . . . we can see a glacier South East of where we are camped distant about ten miles this I know to be part of the glaciers lying between where we are now and the Le Quamish

Saturday 16th the guides have taken us across and recrossed the river 15 times this forenoon it is evident they wish to turn back and they think to discourage us by taking us across Streams and through Swamps where there is no necessity for us to go, as there is a good road all along the right hand bank of the river [Hunaechin]

We have not come over eight or nine miles to day the guides sitting down sometimes, not willing to go ahead, they are all the time telling about the snow that we have to cross . . . the mountains here is high on either side, I would say not less than four thousand feet . . . we still keep going about N East and the Indians say we are past one mountain Sabbath 17th we have not come far to day, in fact under any other circumstances we would not have moved to day the trail has been rough, the bushes bad the Indian guides sat down and would not move for Mr Home I am afraid we will have trouble to get them along

It has commenced to rain and it is snowing on the mountains

The 18th was too wet to move camp. Downie believed that one ridge separated them from "Le Quamish," and "that will be over the roughest of the coast range of mountains." A. T. Dalton's article in this issue of the *Canadian Alpine Journal* describes the region Downie travelled.

Tuesday 19th at half past one o'clock this morning the water came pouring down in torrents driving us out of our tent so that we had to look sharp and save our provisions from being swept away this is a little the hardest looking sight I have seen for some time

The Indians said they did not want to die in the snow; and in the opinion of the white men high water in the streams began to endanger retreat.

Now is the time to see water falls from the cliffs that almost hang over head, we might enjoy the scenery if it was fine weather as it is our ideas are not of the sublimest about this time and here we have a rushing Stream to cross that cools us pretty well and takes the romantic notions out of our head for the time being in crossing the Indians take the packs and we stretch a rope over so that we can hold on with our hands when we lose our foothold.

4. Where gold bearing streams flow across such tilted stratified rocks, natural riffles are formed to collect the gold. But rivers originating in the severely glaciated Coast mountains failed to yield much gold.

Possibly another version of this trip appears in the book (p. 235).⁵ Downie was back in Jervis inlet in February, 1859, but his report, March 19, seems to imply that he did not go inland because “The snow and rain set in, so as to make it impossible to start over the mountains.”

In March, 1859, I made my first inspection of Desolation Sound, situated about sixty miles west of Jarvis Inlet. This time I was the only white man in the company and was accompanied by a party of Indians [four] . . . We penetrated to the head of this water [Toba Inlet], and then proceeded to ascend the river which has its mouth here. The land on either side of this stream we found to be low, sandy and overflowed, but some distance from the mouth the mountains begin to rise to considerable altitudes. It was not possible to proceed with the canoe more than four or five miles from the Inlet, and we reconnoitred the land on foot . . .⁶ but the ridge on the western side could only be traversed by goats and bears, of which there seemed to be a great many. The bears came tearing down the mountainsides to welcome us, but we did not stop to shake hands, preferring to wave them adieu from the canoe. I thought it possible to penetrate from here to Bridge River, but the Indians told me it would take at least a month to reach a group of small lakes where that stream takes its rise. (p. 237)

Downie’s report seems to gloss over what may well have been his chief reason for leaving the Homathko river at the head of Bute inlet unexplored at this time.

This river looks most favorable for gold, and I should have liked to prospect it; but the Indians would not go, as they were afraid of the Euclitus tribes; the principal reason, however, being that the canoe was small, and we were not prepared to give it a fair trial. It was snowing most of the time and most discouraging.

Canadian Pacific Railway surveyors in 1874 relied on the presence of a warship to overawe the Bute inlet Indians.

Downie went on to Loughborough inlet which was uninhabited at this time of year. He describes it briefly, emphasizing its “appearance of utter desolation and loneliness.”

Although the report closes with a reference to supplies sent by the Governor for him at Jervis inlet, presumably for the new attempt mentioned in the Governor’s letter (quoted already in this article) there seems to be no record of a third visit, unless the quotation from p. 235 is one.

5. P. 235. At the entrance to the inlet we met several Bridge River Indians, and with them for our guides, penetrated to the head, and after two days’ hard journeying we found ourselves in a canyon entirely closed in by steep mountains. Never in my life have I beheld such a scene as presented itself to our wondering gaze in this solitude. We were completely shut in by this wild nature. On either hand, lofty mountains reared their precipitous sides far above us, pointing to the leaden overcast sky, and looking like threatening giants guarding the entrance to some land of mystery. Not a vestige of vegetation, not a branch on the bare, solemn-looking rocks as they cast their gloomy shadow over the ravine below, making us feel like prisoners behind barred and bolted gates. Ahead of us lay a field of unsurmountable glaciers, forming a barrier to any further progress, and giving to the situation additional awe and grandeur . . . It has always appeared to me in this solemn situation as if I stood face to face with the angry Jehovah, who stretched forth his hand to remind human beings of their utter insignificance . . .

When I asked the Indians how they proposed for us to proceed any further, they said we would have to ascend the glaciers in the best way we could, and pull one another up by ropes. “And the wagons—?” I asked. “Pull them up after you!” came the reply . . . We camped here for the night, and spent a wretched time waiting for dawn to break . . . Our traps—even our provisions— were carried away, and we had to stand up most of the night holding on to our blankets and utensils, for fear of seeing them carried away by the waters and the violent gusts of wind that came down upon us.

6. The Indians told me it would take five days to the head of it . . . The Indians have gone this route to the land of Bridge River (Heystier), which it may be the best route to try. It is very evident there is a pass in the Coast Range here. (Downie’s report, “ Explorations in Jarvis Inlet and Desolation Sound, British Columbia.” By William Downie. Communicated by Sir Edward Bulwer Lytton, Bat., Secretary for Colonies. *Geographical Journal*, 1861, xxi, p. 249). This pass is almost forgotten now.

Downie (p. 240) refers to two trips up Knight inlet where he “saw plenty of upland Indians, who came down here to trade for grease [oolachan oil, still produced in some quantities at the mouth of Kliniklini river] . . . The natives with whom I came in contact, gave me some information about the interior. They said it took one month and a half to travel to their country.” One trip was a trading venture. Indians at Tsawadi village proved friendly, but visiting Indians so aggressive that goods were hurriedly loaded and the schooner sailed away. Traders were often attacked and their vessels sometimes captured in these times. Downie gives a spirited account of the incident.

Bella Coola, Dean (or Salmon), Kitlope, and Kitimat rivers were visited, and finally, after a disappointing search for gold on Queen Charlotte islands, he went up Skeena river⁷ where he recorded on a tree “ I claim this Pass for the Overland Railway.” The government paid expenses of this trip.

Although Downie wintered in the Cariboo and did a bit of mining, the Coast mountains seem to have held him still in their strange spell, and the spring of 1861 finds him back at the coast.

Downie’s Bute inlet explorations in 1861 lacked any direct governmental support.

In order to ascertain whether a projected railroad might be brought to Bute Inlet, to be there connected with Vancouver Island, a meeting was held in the early part of ‘61 at the old government building fin [Victoria] ... I also recollect seeing Lady Franklin there . . . Among others . . . were Dr. Helmcken, a Mr. Burnaby, and Alfred Waddington . . . I strenuously opposed the idea of paying anybody in advance. I suggested that parties willing to explore the country might do so at their own cost, and if they returned with bona fide reports, they should be remunerated for their trouble, whether successful or not.

Possibly this was meant to discourage rivals less able to finance expeditions. Harry Harlan and Alexander McDonald (or Macdonald)⁸ had a small schooner outfitted to go elsewhere, but Downie won them over.

For this purpose I with my partners fitted out a small Schooner, and sailed from Victoria on the 26th June last taking with us plenty to pay the Indians, so that no failure to the expedition might arise on that account.⁹

On the 3d July we arrived at the head of Bute Inlet which is distant from Victoria about 225 miles ... At the head of the Inlet on the West side and close inshore there is a sandy bottom in 20 fathoms water and good shelter from the Southwest winds blowing up the Inlet.¹⁰

There are three Rivers which fall into the head of the Inlet, one from the East, one from the North, and one from the West, the latter being the largest and the one by which the Interior Indians [Chilcotin] come for Salmon.

7. (P. 244). Myself and two companions were in reality the first white men who crossed from the coast to the Fraser River, but Mr. Alfred Waddington, who was jealous of my successful explorations of that part of British Columbia, took pains on several occasions to ignore the fact that I was the one who led the first expedition.

8. Downie terms McDonald “one of the best of friends, and one of the most generous of men.” McDonald’s pack-train with supplies for the Waddington trail was ambushed by Chilcotin Indians in 1864. Accounts of McDonald’s last stand differ, but agree that he fought to the end.

“Although I did not succeed at the time in crossing the range personally, our experiences there had much to do with the later success of Aleck McDonald, who indeed was the first white man to perform the feat of traversing the mountains at the head of Bute Inlet.” (p. 252).

9. Downie to Douglas, Aug. 17, 1861, Provincial Archives.

10. Waddington’s map, dated Jan. 31, 1864 (in Provincial Archives), shows “Downie’s claim” shrewdly located on the shore beside this anchorage, the only safe one at the head of the inlet. Without mentioning this, Downie says (p. 265) “ Had I wished to get into the pay of the speculators, I could have made enough money on Bute Inlet to amply repay me for my outlay and hardships endured, but all I wished to do was to make a fair and unbiased report of what I saw and learned.”

I determined to proceed up this one [Homathko] first and accordingly made arrangements with the Indians to go with us, making them presents to keep them all right, until we got a fair Start. I may say that they are as hard a Lot of Indians to get along with as I have seen on the Coast, and it required all my tact to get them to go up the River at all. I used them well before starting and gave them all papers for a Blanket each and sundries when we came back.

Naval support for Canadian Pacific Railway surveyors in 1874 has already been mentioned.

Mr. McDonald and I with 8 Indians in 3 Canoes started up the River Homathco on 7th July taking along with us plenty of provisions &c to supply us in going over the Mountains. This River runs through low sandy flats thickly timbered . . . The River runs [from the] North West winding in its course. : The first day we passed two Glaciers on the East side of the River, the snow lying all along the face of the Mountains on the West side. A large Mountain on the East presents a Mineral appearance. I followed a reddish vein until I got it low down, in hopes that it might contain Mineral but without success.

The River became swift in its course the second day so that we had to use poles—from all appearance it is a hard River to get up.¹¹

The Canoe I was in whilst passing round the end of a long tree struck a strong current, the Indians could not keep her head to the Stream, and it came down broadside on, and went crashing under [the fallen tree—”a sweeper”—projecting from the shore]. Canoe, Indians, and all I had in it disappeared in the twinkling of an eye, as I saw the Canoe fill I picked up my pistol belt and got hold of a log, as the Indians came to the surface, they struck out for the shore. I felt thankful for my safety. Mr. McDonald as soon as he saw that we were all right and out of danger started down stream after the floating wreck, and succeeded in recovering several articles. As for the Indians they stood trembling on the shore, without even once making an effort to save anything.¹²

As I had the most of what was valuable in my canoe, our loss was a considerable item under the present circumstances. Mr. McDonald picked up the Canoe about Two Miles below where the accident occurred and hauled it on shore, and although pretty well broke up, we fixed it so as to be in order to proceed onward. The Indians were unwilling to go any farther after the disaster, so that we had no other alternative but to buy a Canoe and go on without them as we were determined to hold on to a Canoe whether the Indians went or not, having no idea of turning back till we satisfied ourselves that we could go no further. I succeeded after a good deal of talk in getting a Canoe in Exchange for Blankets and Shirts. We sent down to the Schooner for a fresh supply of what things we lost and made another start, this time we had only one Canoe and two Indians.

From here on, both book and report confuse the total number of the party, which was almost certainly four, (p. 254 . . . “with only two Indians for my companions, one of whom was a chief”).

11. “Up the Homalko at Whirlpool Corner there was another ranch owned by the Hickleton boys. They left; and my brother and I were detailed to get their stuff out by canoe. That was a job, the place was over-run by grizzly bears and skunks. We had some close calls with both and almost lost the canoe and goods on one of the trips (of which we made three) for the large sum of \$7.50, which was big money in those days [1893-1897].” (Dennis G. Walker, Ocean Falls, B. C.).

“Driftwood in the river now threatened the canoe frequently. In the log-jams we noted many fragments of boats and rafts, for many hunters, prospectors and timber cruisers had lost outfits in the Homathko river; one party arrived at the river mouth on foot in their bare feet.” (“Explorations in the Coast Range,” *C.A.J.*, 1926, p. 126).

12. P. 253. “I was heading the procession with two natives . . . she turned first broadside, and then bottom up. In one moment we were all in the water. I saw what was coming and warned my companions, but they did not heed in time. I caught my pistol belt and clambered on to a drift log which took me down the stream toward the other canoes, but for some time I looked in vain for the other Indians. It did not take me long to meet McDonald and his crew, who picked me up, and by this time my late companions had reached the shore, where they stood shivering after their cold bath, while we went in pursuit of the escaping canoe, and soon overtook it.”



A Glimpse of Heakamie Glacier from Homathko River at a Point North of the Mouth of Heakamie Creek. Mt. Teaquahan at Right.

Photo A.R. Munday



Downie Left His Canoe Near This Point and Continued Up the Homathko River On Foot

Photo A.R. Munday



Aerial View of Toba River Area, Looking East

Photo Courtesy of J.R. Farrow, Water Rights Branch

Showing fork of Filer creek (by wing strut). Little Toba river is first valley on right. the pass Downie heard of is up one of the more distant valleys on the right (true left of river). it must have been down one of these valleys that Stanley Smith came in 1892. (see *Stanley Smith's Travels On The Coast Mountains, C.A.J.*, 191)

Mt. Grenville
10,200 ft.



Heakmie Glacier
hidden behind
ridge
←

Jewakwa Glacier
←

Aerial View, from Over 12,000 Feet, of Homathko Snowfield

Photo Courtesy Of J.R. Farrow, Water Rights Branch

Taken from a point above Homathko River near mouth of Waddington Canyon.

Camped near the mouth of a very swift running stream [Heakamie creek] which flows from the Eastward, where there appears to be a pass through the Mountains. The name of this stream is called by the Indians "Hickhanum" this being the name of the Indians on the East side of the Mountains in the Valley.

The valley on the east side of the mountains?

I thought it was very probable we could get through there and as the Indian Chief I had with me told me I could see the good land on the other side in one day, I took him along, knowing that if he could go in one day we could.

Started for the low pass in the Mountain lying East, we followed the stream through wooded and boulder flats, until we came to a narrow chasm where a muddy torrent rushed forth at a fearful rate with a deafening noise.¹³

By the color of the water I knew we were in the vicinity of a Glacier, scrambling up the Rocks forming the chasm we saw the Glacier sure enough, lying between two Mountains rising abruptly on either side of it. Descending the rocks forming this Chasm to a boulder flat one mile brought us to the foot of the Glacier. This is the first Glacier I have seen that comes down to level Ground, in width it might have measured one and a half miles, whilst it extended in length as far as the eye could reach to the Eastward.¹⁴

It was something grand to ascend to the face of this enormous mass of ice and mark the verigated [sic] hues of transparent blue in the crevices where the sun was making inroads by its beams in softening this ice bound mass. In vain does old Sol send forth his powerful rays of sunshine and warmth, fast locked in perpetual ice no ray of sunshine can ever lighten these dark caverns, hollowed out underneath by the continual dripping [sic] of water. As if designed for the greatest contrast in nature the tiny little swallows which I had not before observed are numerous around the face of this wonderful Glacier. The Indian Chief now looked blank when I asked him where the trail was. He said this was a bad time to cross as we could not travel on the Glacier owing to the crevices caused by the sun shining on it, but in the winter it was good travelling over the Glacier. I had no doubt of that myself. We thought it might be possible to get through this Glacier Gorge by keeping alongside of it as there appeared to be a small bench close under the Mountain. We went on over a Boulder hillside, picking our steps and keeping a sharp look out as we stepped from rock to rock, catching hold of a friendly twig to steady us from being precipitated down along side of the Glacier, in which event there would have been little chance of our ever getting out of those dark granite slimy caverns underneath.

We went as far as Man could go alongside of the Glacier, and climbed the Mountain to ascertain whether or not we could see the other side of it. Nothing however could be seen but a continuation of Snow. We judged that we could discern ten miles of this Glacier on the West side of the Mountain. How far it might have extended to the Eastward it was impossible to say.

The corresponding passages in the book do not differ substantially. The height they climbed remains unknown, though several thousand feet might be inferred from the description, "We could see nothing but snow-fields as far as the eye could reach and the horizon itself seemed shut in by ice and snow."

We considered we had done our best duty and retraced our way back to camp, loaded our Canoe and started up the Main River.

Downie's report oddly omits mention of Jewakwa valley which opens to the same great boulder flat as Heakamie (Downie's Hickhanum), and contains one or more large glaciers likewise draining from the vast Homathko snowfield which Downie had just discovered and had seen in

13. "The journey was a dangerous one, and we made slow progress through woodland, and flats covered with rocky boulders." (p. 256).

14. Ice river, for example, issues from a glacier only two miles from the main valley [Homathko] and only 300 to 400 feet above sea level (See Plate 7)." *Water Powers of British Columbia*, Commission of Conservation, 1919.

part. (For descriptions of the Homathko snowfield see “Peaks of Bute Inlet,” by Tom Fyles, *C.A.J.*, 1930, and “Beyond Bute Inlet,” by the writer in this issue of the *C.A.J.*), Downie’s book contains a passage which fits neatly enough as describing a trip up Jewakwa creek but mentions no glacier.¹⁵

The report continues:

Our progress was slow as the River [Homathko] was swift besides having to cut our way through drift timber. We got up to a River coming in to the Main River from a Westerly direction. This River like the one on the East rises in a Glacier. We had hard work now in getting the Canoe along, towing with a line and cutting away timber, got up to where another River comes in from the West side.

This is the torrent from Whitemantle glacier. My 1926 party abandoned canoe travel below this point. The elbow of the river beyond this is almost a rapid.

Here we had to make a portage as it was impossible to get along with our Canoe loaded. Packed our stuff about half a mile, hauled the Canoe up and loaded again, got out the tow line, having at intervals to pass it around bushes and timber, with a determination to go to the head of the river if possible. Our Indian began to get sick and commenced crying and wanted to turn back, but as we could not go on without his assistance in working the Canoe, we would not permit him to return. 17th July 1861.

We were now most of the time in the water, pulling the Canoe along and cutting away masses of drift timber. Got up to the mouth of another stream coming in on the west side, went up a short distance to ascertain how it looked. Discovered a very rough Canon which takes its rise in a group of snowy Mountains. [Scar creek and Whitemantle range].

Started ahead hauling the Canoe along, came to a bad place for whirls and riffles. The Indian now seemed overjoyed as he supposed we could turn back now . . . The Indian when he saw us getting rollers, and cutting a trail for the conveyance of the Canoe began to look chop fallen indeed. 20th July 1861. Found it was impossible to proceed farther with the Canoe and came near loosing it again. Mr. McDonald and I then started on foot leaving the two Indians in Camp. Passed a large stream on the west side, where the Bella Colla Indians come down in the fall for Salmon. This River like the others rise out of the Snowy Mountains. The Indians have a trail by which they come through a rocky pass at the head of the River.¹⁶

Downie and McDonald followed the main river for two days—they had left the canoe not more than four miles below Waddington canyon.

As we could not follow it any further we pronounced it impossible for any kind of road to be made this way.¹⁷

15. We had not proceeded very far when we came upon another river, falling into the Homathco, and for the second time we left the latter, travelling up an auxiliary, coming from the east. We had hard work journeying up this stream, which ran with great force. We had to make a portage at one place, while at others we were obliged to tow the canoe up the stream, making fast the line round a bush every now and again, while we cut our way along the bank. It was one of the most trying journeys I ever undertook, which is saying a good deal.” (p. 256). In spite of the definite opening sentence I am not quite sure, considering frequent signs of geographical ignorance throughout the book on the part of the editor, Waage, that this passage is not a paraphrase of Downie’s account of the trip up the Homathko.

16. Now Coula creek. Downie was on the east bank of the river. Victoria newspapers at this time often used “Bella Coola” as though properly interchangeable with “Chilcotin.” Language difficulties probably misled Downie so that he concluded the Chilcotins came down Coula creek, instead of to Coula creek (by way of Homathko river; the rocky pass would be Waddington canyon). Chilcotins had massacred nineteen coast Indians about seventeen years before this at Murderers bar, site of the massacre in 1864, of Waddington’s road gang.

17. (p. 256). “I thought that under more favorable circumstances it might be possible to penetrate further up, and I felt that I should like to make another attempt.” Waddington had forced him to review his opinion.

We next tried a Stream coming into the Canon about South East. We followed up this stream one day when it also run into a Canon . . . It is beyond doubt the hardest looking part of British Columbia I have yet been into.

This is Downie's creek on the Waddington map, and now Klattasine creek. (Klattasine fired the first shot in the Waddington massacre). Glaciers at its head link with the Homathko snowfield.

Having recorded their return to the schooner after sixteen days up the river, Downie twice remarks on the uselessness of trying to find a route for a road up the Homathko.

The next river we tried is called the Teaquahan flowing into the head of the Inlet from the North.¹⁸ The Tuachon Indians informed us it was not far from here to the Hickhanum Indian country and that we could see their land if we ascended the Mountains. We tried this River and found it as far as we went similar to what it was in the Homathco, if anything somewhat more difficult of access than the Homathco. It is here the Indians cross the Mountains at certain seasons of the year, hunting Mountain Goat, when the snow is hard and I have no doubt that we could have crossed over now but as it was impossible for a road to be made through this pass I considered our object accomplished in ascertaining this fact.

Downie records that the schooner anchored twenty-three days at the head of Bute inlet, probably a slip, as Southgate river was also explored. Downie calls it Memyza (Memria in his book) and also says they spent a month and a half on their Bute inlet explorations.

It runs from the Eastward. I learned from the Indians that the Lock-Wallas,¹⁹ come down here occasionally and that there is a trail from the head of this River to the Lilloet . . . This River is not so bad for some distance up, but about 20 miles from the mouth, it runs into a Canon where there are falls, above this the trail is bad and the Mountains rise abruptly.

Downie's report, dated Aug. 17, 1861, makes a covert bid for governmental payment of the party's expenses.

This experimenting is rather unprofitable when it falls on a small company like ours, still we will dig along in hopes some day to realize our Golden dreams.

But Downie also made a bid for public support by hiring a hall and calling a meeting.

No sooner had my hearers understood from my remarks that I could not recommend Bute Inlet, when it seems that one and all took it for granted that I was in some kind of collusion with the [New] Westminster people to squash the big land schemes of Bute Inlet . . . And then various articles were thrown across the hall, breaking sundry lamps in their route towards myself, (p. 265).

Downie made a second trip up Dean river, this time penetrating as far as Nechaco lake where he recommended the country as suitable for settlement on a large scale, and forecast a railway by this route to Fort George, now Prince George. He again mined in the Cariboo in 1862.

It was evident that I had more luck when looking for gold than when trying to find mountain passes, for I struck it rich . . . The gold seekers as they had done in California . . . let go of a good claim to pursue a phantom—I with the rest of course . . . We pumped mud day and night . . . till my finances were completely pumped out. (p. 266).

Downie went to Naas, Stikine and other northern rivers with little success. In 1874 he went to San Francisco, then south to examine mines in Panama and Costa Rica.

As an old man, getting rather deaf, Downie sold books by subscription in Nanaimo, B.C., I am kindly informed by Robie L. Reid, K.C., of Vancouver, who adds that in 1894 Downie was taken to California to reproduce the beginnings of Downieville, but died as the ship entered San Francisco bay.

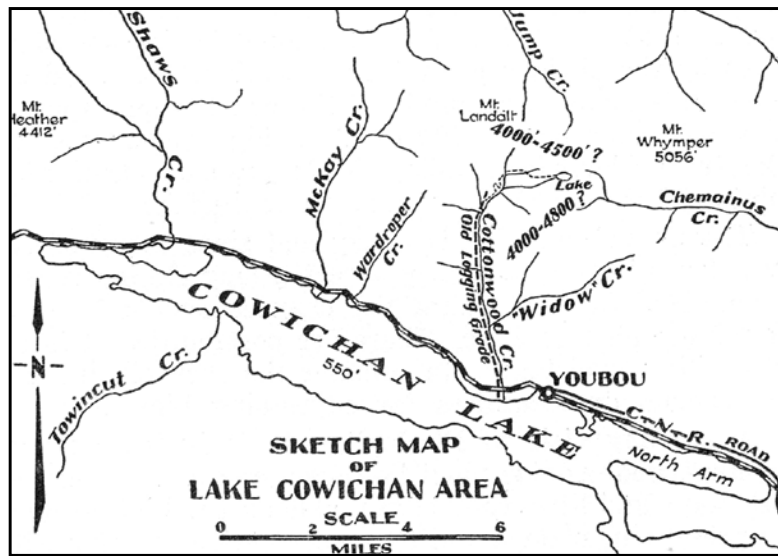
18. See "Peaks of Bute Inlet," *C.A.J.*, 1930.

19. Downie was again mistaking "to which" for "down which." Lockwalla is to be regarded as one of many widely varying forms of Lokwiltah, a large coastal tribe whose name appears in another form as Yuculta or Eucletaw, the spectacular tidal rapids near the mouth of Bute inlet.

Dividends from El Capitan

By Ferris Neave

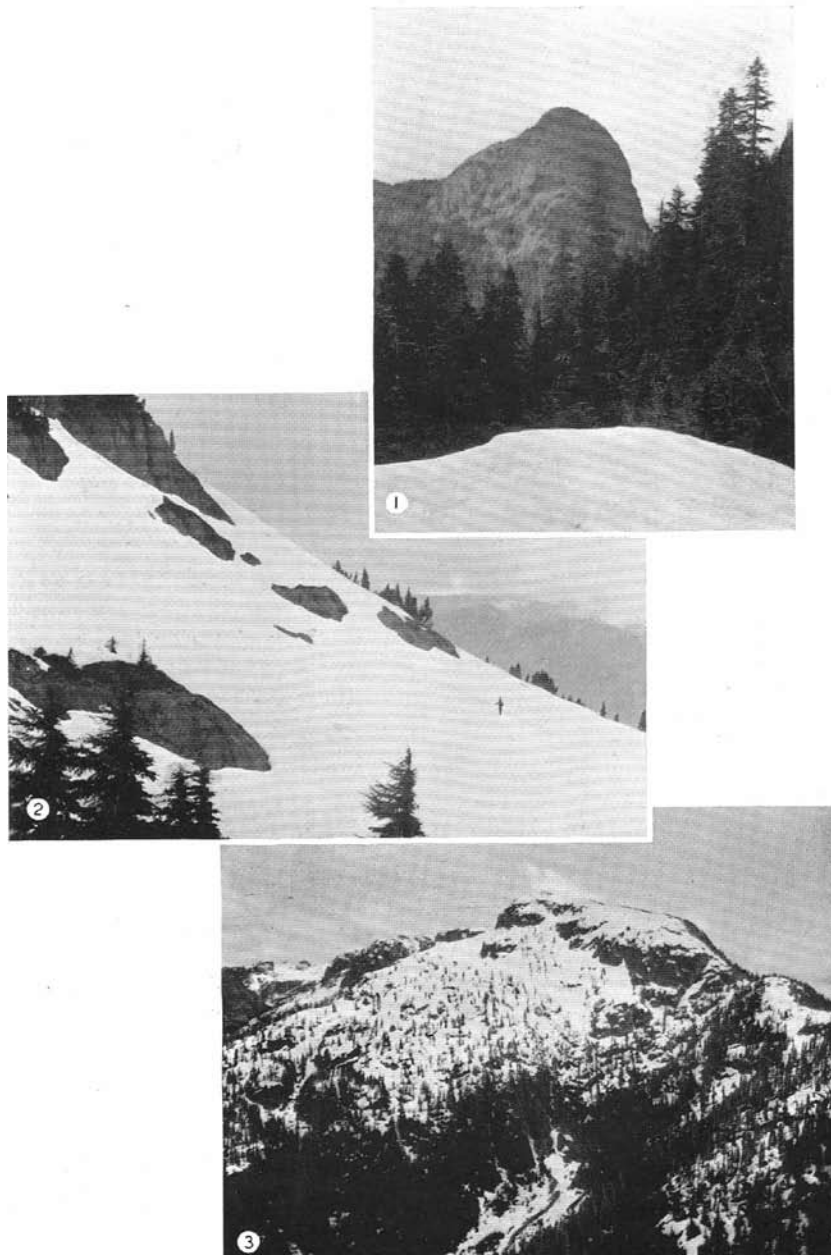
The climbing and ski-ing opportunities afforded by Vancouver island remain largely unexploited and even unexplored. Except on the considerably advertised Forbidden Plateau, no well-worn winter trails to the higher ground exist and the better developed playgrounds of the mainland can often be reached by island sportsmen as quickly as the less hospitable regions close at hand. Nevertheless, for those who may be disposed, at least temporarily, to substitute bodily exercise for the broadening effects of travel, considerable territory is available.



A district which is at least relatively accessible can be found in the high country which lies near the headwaters of Chemainus river and is defined on other sides by portions of the Nanaimo and Cowichan drainage systems. This country can be reached from Cowichan lake.

Youbou, on the north shore of the lake, is seventy miles by road from Victoria, sixty from Nanaimo. Cars cannot be taken beyond this point except by permission of Industrial Timber Mills. A mile to the west is Cottonwood creek, the valley of which can be ascended for some six miles by following an abandoned logging railway grade. A car can be persuaded to accomplish the first mile or two. At a well-defined fork in the valley a trail leads up the eastern affluent. The logged-off areas of the lower Cottonwood valley are soon left behind and the trail climbs steeply through fine timber to a small lake set in an amphitheatre at an altitude of about 3500 feet. A prospector's cabin, unoccupied in winter, stands at the foot of the lake, in relation with the nearby El Capitan mine. The view from this point is rather reminiscent of lake Louise on a vest-pocket scale.

The lake lies near timber line and the apparently unnamed peak on the south side exhibits attractive alplands, with snow slopes both easy and not so easy, above an irregular belt of cliffs. The latter may be surmounted by various routes. Choice of these should be influenced at times by the obvious possibility of avalanches. Good ski slopes extend to the summit of the peak, which appears to be not much below 5000 feet. A ridge, separating the lake from Chemainus valley, leads towards other high points (Mt. Landalt) situated north of the lake.



1. Rock Peak at Head of Chemainus River *Photo F. Neave*

2. June Snows Above El Capitan *Photo F. Neave*

3. Mt. Landalt *Photo F. Neave*

The annual snowfall is heavy and since many of the best slopes have a northerly aspect a long ski-ing season is possible. In most years the chances should be good from November to June. There are possibilities of interesting high-level tours. In summer the rock climber can find certain opportunities for expressing himself.

A one-day visit to El Capitan in mid-winter is not recommended, as skis must be taken, and in part carried, both ways and little time is available on the high ground. In spring, longer days and the comparative rapidity with which the lake can be reached on foot make such a trip more worthwhile, especially if skis are left at the cabin. A long week-end, while involving the carrying of food supplies, would permit a much better acquaintance with an attractive and well-hidden part of Vancouver island.

Some Memories of Edward Whymper

By Arthur O. Wheeler

Edward Whymper was my friend. I first met him on the main street at Banff in the Canadian Rockies and recognized him from his pictures. I introduced myself and challenged, "I hear you have come out to Canada to climb Mt. Assiniboine." He replied, "Not so. A man does not climb mountains like Assiniboine after he is sixty years old." This was in the spring of 1901 and Assiniboine still a virgin peak, although attempts had already been made to reach its summit. The first ascent was made later in the year by James Outram, accompanied by the Canadian Pacific Railway Swiss guides, Christian Hasler (senior) and Christian Bohren.

Whymper came to the Rockies under the auspices of the Canadian Pacific Railway, presumably to report upon their attractions to travellers interested in mountains and the many phases of scenery, climbing, science and art they present. If an official report was published I have not seen it and any knowledge of his doings was conveyed to me by the published newspaper reports. I rather fancy he came with the intention of discovering the Canadian Rockies and found they had already been discovered.

He brought with him four Swiss guides and for part of the time had James Outram as collaborator and guest. Most of his major climbs were made by Outram or his guides, who reported to him. It must not be forgotten that when he came, Whymper was beyond the age for strenuous climbs.

Whymper was of a very precise and imperious character and strongly objected to interference in his premeditations. An amusing anecdote is told of his first arrival at Mt. Stephen House at Field, B.C. In those days the trains did not carry dining cars on account of the heavy grades and meals were served at the Company's tourist hotels along the route. The train had stopped for dinner. Whymper was busy collecting and checking his many boxes and express parcels and paid no attention to the dinner bell nor to the departure of the train. Miss Annie Mollison, manager at Mt. Stephen House, well known to all visitors to the Rockies in the early days, a Scottish lady of determination quite equal to Mr. Whymper, sent a page boy to tell him his dinner was waiting. He paid not the slightest attention. A second time the boy was sent, but without result. Miss Mollison became annoyed and said to the boy, "Go tell Mr. Whymper that if he is not here in one minute he will get no dinner." Whymper arrived on time and ever after a mutual respect and friendship grew up between them.

Of the many parts of the region he travelled, near the railway, he seemed specially attracted by Ice river valley and camped in it for some time. It is likely the real attraction was the blue sodalite to be found in Sodalite valley, a tributary of Ice river valley. He seemed much impressed by this mineral, which is somewhat of the nature of lapis lazuli and susceptible of a high degree of polish.

While camping and exploring in Ice river valley, his transport was handled by an outfitter, that dry, humorous old stick, Tom Martin. Whymper had a habit, when thinking things out, of marching back and forth along the trail, with his hands behind his back, a la Napoleon. On this occasion a log had fallen across it and every time, to and fro, he had to stop to step over the log. Eventually he became conscious of it and it got on his nerves. He called, "Martin! come here." Then, "Martin! cut that log." Martin, chewing a straw, gazed at it reflectively for a few moments and then said, "Wall! Mr. Whymper, I've been up and down this valley many times and every time,



Edward Whymper

that log has been there, and I'm thinking, Mr. Whympers, that if you want that log cut, you'll have to cut it yourself." Whympers exploded, "Martin! you're fired" and stalked off to his tent. Presently there was another shout, "Martin! come here," and Martin who had been fired several times before, duly appeared; and there was the Chief with a bottle in one hand and a mug in the other: "Martin! have a mug of beer."

Much of Mr. Whympers's supplies were put up in the form of concentrates, tablets and capsules. While his guides seemed well in hand, this was anathema to the packers and pony boys, who were accustomed to sizzling rashers of bacon, hot cakes and syrup, washed down by fragrant black coffee, and nearly led to desertion. Later, Whympers confessed, almost with tears in his eyes, that the Canadian methods were the best and most satisfying for pack-train travel in the Canadian Rockies.

The following is indicative of his conservatism. Several years later he again came to Canada and, en route for the mountains, put up at Braemar Lodge, Miss Mollison's nice little hotel at Calgary, where mountain lovers were always welcome and well taken care of. She had retired from Canadian Pacific Railway service and was now on her own. I then lived at Calgary and the morning after Mr. Whympers's expected arrival phoned Braemar Lodge. Advised that he had arrived, I said that I would like to speak to him. Presently the voice came back, "Hello! are you there?" "Assuring that I was, the voice continued, "Mr. Whympers says he does not like the telephone and will not come." It sounded discourteous, but was ameliorated by an invitation to breakfast with him the following morning. On inquiry I found his breakfast time was eleven o'clock or later. By that time my days, pretty busy ones then, were about half over, so I did not see him before he left for the mountains.

Our next meeting was in London, in 1907, at the rooms of the Royal Geographical Society. It was set for 4 p.m. by his appointment. You know how it is; strangers cannot get about London as quickly as the inhabitants and I was one minute late. He was sitting in an easy chair by a bright, log fire and his greeting as I entered, after an interval of six years since I had seen him, was, "Well! I was on time!"

I was then President of the Alpine Club of Canada and had travelled to London to attend the Jubilee dinner of the Alpine Club as the Club's guest. At the dinner I listened with much enjoyment to the very fine and witty address of the President of the Club and Chairman at the dinner, the Right Rev'd the Bishop of Bristol. I was particularly struck by what he said about Mr. Whympers. He said,

"... Therefore you have thoughtful, imaginative, strenuous, virile literature as the natural literature which comes from the Alpine Club. [Hear, hear]. It has been—I was going to say, my duty—my pleasure to look once more at some of the literature which Alpine Club men have put forth to the world, apart from descriptions of mountaineering efforts. I have been very much struck indeed with one of the earliest of the important works to which I refer; I mean Mr. Whympers's great book on the Andes. [Hear, hear]. That book is a marvellous collection of archaeology, history and science of all kinds— geology, petrology, entomology, and all sorts of things; excellently put as literature, and accompanied by abundant evidence of, I suppose about the most skilled power of illustrating man ever had. [Hear, hear]. There is nothing like Whympers's illustrating, I think, done by the mere hand. He makes noxious insects much more real than life. There is one standing prominent in the middle of a page, the most dangerous, poisonous, mischievous beast that is to be found in the whole of the Andes. I regret to say that the natives call it the 'Bishop.' [Laughter]. A few pages on, he describes another formidable stinging beast, evidently only less bad than the 'Bishop.' That the people call the 'Devil.' [Laughter]. The libel stands in the latest edition."

A fuller resume of the Bishop's address will be found in the 1908 issue of the *Canadian Alpine Journal*, page 299. In 1908 Mr. Whymper proposed the writer as an Honorary member of the Alpine Club.

It will be remembered that at our annual camp for the year 1909, held in the Lake O'Hara meadows, the veteran Edward Whymper was present. He came from England especially to attend the camp, stayed there with us for three days and then returned direct to England. His address to the annual gathering is an outstanding record of the *Canadian Alpine Journal* and is given, in full, in the 1910 issue, page 214. It was his last visit to the Canadian Rockies.

This little article is personal and does not deal with Mr. Whymper's distinguished biography, recently reviewed in these columns. A comprehensive "In Memoriam" sketch appears in the 1912 issue of the *Canadian Alpine Journal*, page 126, written by that well-known litterateur of the *Manitoba Free Press* of Winnipeg, Mrs. H. J. Parker, the first Honorary member of the Alpine Club of Canada.

The foregoing incidents are illustrative of the downright and imperious character of the man, but to his friends he was kindly, humorous and distinctly human. In later years he married a French lady and they had a little girl. He used to write me about her funny little ways and the pranks she would play upon him.

He presented me with a number of signed photographs. One, of the ice tongue of the Yoho glacier is now of special value as it shows the grand ice-fall and the cave in it from which flowed the initial source of the Yoho river. Owing to the great recession of the ice in the past twenty years this ice-fall has melted and gone, and now is replaced by the ragged rock ridge over which it used to tumble. Another, is of the Kicking Horse river falls, below the railway near Leanchoil. At my summer home at Banff I have one of his beloved Matterhorn and of the Hero, himself.

A great mountaineer, a notable scientist, a prince of illustrators and a master of terse and graphic literature, to which his books *Scrambles amongst the Alps*, *A Guide to the Valley of Zermatt and the Matterhorn*, *A Guide to Chamonix and the Range of Mont Blanc*, and others, now classics, bear witness. I shall always feel proud to know that he included me among his friends.

A First Ascent In the Seven Sisters Range

By Neal M. Carter

On the occasion of my first trip along the northern line of the Canadian National Railway through British Columbia in September 1929, I sat with my eyes glued to the window of the day coach as the train wended its tortuous way from Prince Rupert up the left bank of the Skeena river, unfolding to view wave after wave of the Coast mountains rising abruptly from the valley floor. Nearing Cedarvale, 145 miles up the line, a particularly impressive range heavily glaciated on its southern side hove in sight and towered higher and higher until, just across the river from Cedarvale, its terminal western peak rose so steeply that I could not conveniently see the summit from the window. By the time I had stepped out into the vestibule a still higher peak with a glistening cap of ice and snow was peeping out from just behind the nearest one. I surreptitiously opened the upper part of the vestibule door and shot the last film on my roll, later writing back to Mrs. Carter in Vancouver to state I had seen a new peak which "some day we will have to climb." Thus arose my first acquaintance with "The Seven Sisters."

Nine years rolled by, in the course of which my occupation brought about our residence in Prince Rupert; in the beginning of 1939 we began to formulate plans for visiting the Seven Sisters and at least getting to know them by their first names.

The Dominion Topographical Survey Branch had published in 1938 two contoured maps (Hazelton Sheet, West Half; Smithers Sheet, West Half) on a scale of four miles to the inch that included a lot of mountainous territory in the neighborhood, but these both terminated at the 128°W. meridian, only nine miles east of the highest peak of the Seven Sisters. Through the kindness of this Branch, I was supplied with a selection of enlargements of infrared views taken from survey stations to show the Seven Sisters from the northeast, east and southeast, though some of these were from a considerable distance. It was stated that data at the edge of the survey were too scanty to provide accurate information on the Seven Sisters, but that in the course of a geodetic survey along the railway in 1926 observations were made to the highest peak giving it a position 54°58'04"N. 128°13'48"W. and elevation 9075 feet. The Provincial Survey Branch kindly supplied the information that during a triangulation passing southward and westward of the range, the "western peak" was cut in (1925) with a resulting position of 54°58'03.9"N.— 128°13'49.4"W. and altitude of 9100 feet. None of the peaks in the range had been visited, however, and in the absence of definite signals on which to sight, the three-humped snow crest of the main peak presents a rather poor target for position and altitude determinations. The Provincial Forest Survey Branch was also most helpful in supplying three aerial views of the peak from the immediate vicinity of the range.

Miss Edith Thompson, postmistress at Cedarvale, wrote in reply to my enquiry that to the best of her knowledge no one had climbed to the actual summit of any of the peaks in the range though goat hunters and prospectors were familiar with some of the slopes above timber line. In fact, mining developments for silver, lead and zinc between 1926 and 1929 had led to the establishment of a group of log cabins at 4100 feet (just below timber line), reached by a good pack trail from across the river from Cedarvale. This sounded pretty hopeful for a nice easy approach to a worth-while first ascent, so in early March of 1939 I grasped at the opportunity of making a short trip by gas "speeder" and on foot along the railway in the vicinity of Cedarvale for the purpose of securing further information to enable the laying of definite plans for an attempt in August.

Additional photos supplied by Miss Thompson, coupled with local information, disclosed that the mining cabins would make an admirable base camp.

The Seven Sisters had attracted the attention of Dr. J. Munroe Thorington (1916), Henry S. Hall Jr. (1923 and 1938) and Allen Carpe¹ when passing by on the train, yet not until the year of our planned attempt did any other party contemplate a serious mountaineering effort in the vicinity. Just a fortnight before our party was ready to leave Prince Rupert, I received a telegram from Hall who was stopping off at Pacific with Hans Fuhrer and had heard from the train conductor that I had been scouting around earlier in the year. Hall asked whether I had any information on trails, etc., around the Seven Sisters; but on receiving my reply that I had all plans laid for an attempt, he and Fuhrer very courteously refrained from interfering and made instead a first ascent of Mt. Sir Robert across the Skeena river from Pacific.² A couple of days later in Prince Rupert we had the pleasure of meeting for the first time. Hall had made the altitude of the highest peak of Sir Robert 7850 feet; I have since seen unpublished Dominion survey data indicating a probable height of 8180 feet.

Our own party left Prince Rupert on the evening of August 21. It consisted of Mr. and Mrs. W. E. Martin, members of the Vancouver section of the A.C.C., Mrs. Carter, myself and our two youthful sons David and Bruce who, with their companion George Baker of Prince Rupert, were to be a "supporting party" with activities confined to the vicinity of the cabins. We inadvertently happened to pick the train chosen by the summer Indian population of the Skeena river canneries to transport themselves, their children and innumerable dogs and bundles back to winter headquarters up the line. It certainly was a "mixed train" what with babies asleep on the smoking-room floor, dogs howling in the baggage car, and the fishy odor from halibut-laden refrigerator cars. We arrived at Cedarvale at 4 a.m. and spent the next few hours in our sleeping bags on the floor of the little station house.

Two horses had already been arranged for, and the packer proved to be a jovial Indian, Douglas Marston by name, who thoroughly entered into the spirit of the expedition though a little at a loss to understand the reason for it. After he had thrown the Indian version of the diamond hitch over the laden horses we got away at 8.30, crossed the Skeena on the current-operated free Government ferry and plodded along a couple of miles of road down the far shore until, just across a rickety bridge over a glacial stream, it petered out at an old road camp—ghost of an incipient effort to link Prince Rupert and Terrace with Hazelton and the rest of the province. Here commenced the excellent seven-mile pack trail and by 2.30 we reached the cabins with no untoward incident other than feeling rather foolish after calling a fifteen-minute halt amid flies, mosquitoes and lush alpine flowers when unknown to all except the taciturn Douglas, we were within a couple of hundred yards of our destination! The cabins proved to be well furnished despite their practical abandonment, so we lightened the prospects of backpacking down the trail by sending some of our no longer needed equipment down with the horses. Our peak was visible from the cabin, and in the evening Bill Martin, George and I, with Douglas tagging along behind, followed up the ridge above camp to 5400 feet where, well above timber line, the tip of the peak seemed a little closer as it peeped over an intervening rocky sky line. We were sure we could make it.

Next morning (Aug. 23) Bill and Bea Martin, Peggie and myself got away to a none-too-early start, and following a trail to the mine workings (4400 ft.) we branched off into the

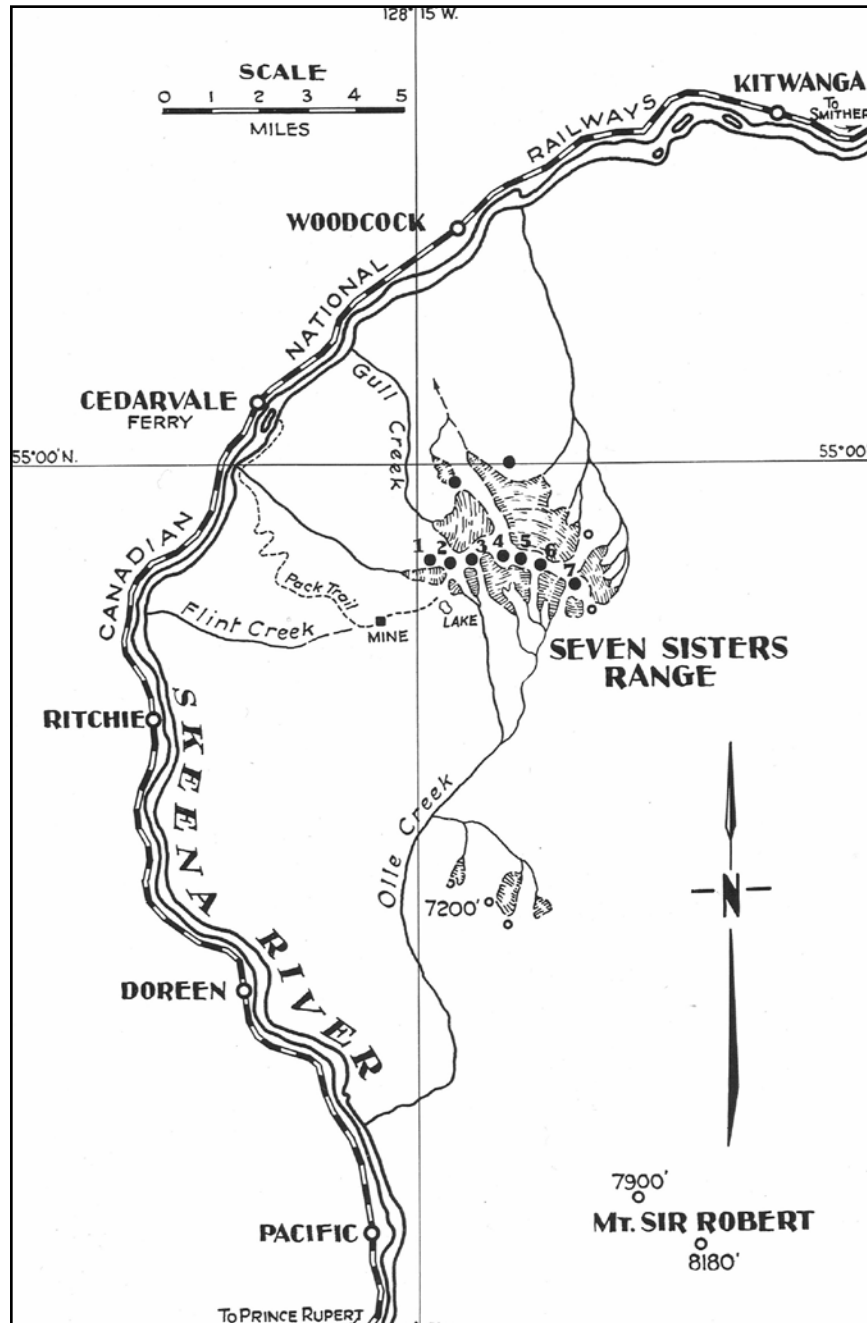
1. *A.A.J.*, I, 425.

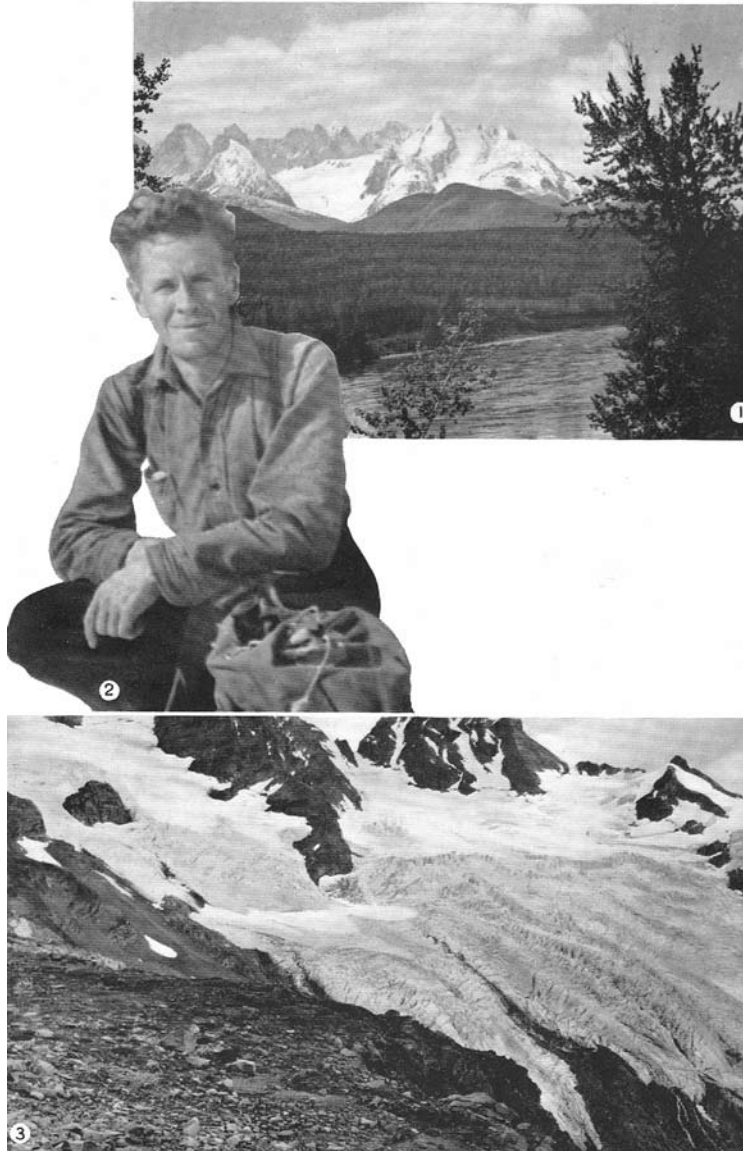
2. *A.A.J.*, IV (1), 142.

amphitheatre to our left and greeted the sun as we topped a gap at its head. Here, at 5400 feet, we were on a ridge high above the foot of a glacier seen from Cedarvale; the ridge rose on our right in a series of rocky humps and appeared to merge into a snowy sky line curving left at the head to the glacier to meet the rocky face of our objective (Peak No. 2 counting from the river) some 500 feet below its summit. Peak No. 1, a sharp rocky trident, faced us across the glacier, but the remaining peaks were hidden behind No. 2. The morning was fine and the ridge was easy. We stopped to inspect an old weathered claim post at snow line, took frequent movies, and tarried too long over a meal and my establishment of a camera station atop a 7500-foot bump dubbed by Bea the "Plum Pudding." From the top of the next hump a snow crest extended some distance and provided glimpses of the south face of the far end of the range for the first time. This gave way to an almost level, very sharp crest of rock that had to be traversed a cheval, introduced by an exciting slithering over a block of rock about the size of a steamer trunk precariously perched on two other rocks on the very crest of the narrowest part. Next came a gendarme, which we passed on a patch of snow, then a house-like rock, which we found possessed an overhang at its far end. It was getting late in the afternoon, the sky had become overcast and a chill was in the air. We had not anticipated these difficulties that had been concealed by foreshortening as seen in photographs and inspection of our route through field-glasses from farther back on the ridge. So, at 8275 feet we turned back since we were still a considerable distance from the base of the peak, and not yet on the curving snow sky line leading to it. We put the day's effort down to experience, and decided to make an earlier start next day. The return to camp was uneventful.

Next morning we awoke to the sound of rain, which continued until noon of the 24th, our last available day. However, that afternoon Bill Martin, the three boys and myself traversed around several miles of scree and moraine on the south face of the range to see if we could get a view of the back of the peak, whose approaches from this direction were not clear from the photos I had collected. Passing two pretty little morainal lakes at 5600 feet, we ascended some very slithery scree to the shoulder of a ridge at 6000 feet, where we got our first glimpse of the southern glaciers. The peaks were hidden in clouds and we could not be sure where the upper part of certain ridges would lead to; but it appeared that the head of the nearest glacier should give access to rocks leading up to somewhere near the summit of Peak 2. For one exciting moment a dazzling white summit (No. 6) showed through a rift though its identity was not certain at that time. The following morning we broke camp and back-packed down the trail. Nearing Cedarvale, we found that our trip had awakened considerable interest and the disappointment in our answer to the solicitous enquiries encountered at the first farm was tempered by an invitation to afternoon tea, in the course of which our hosts the Moberleys urged us to try it again next year. We vowed we would.

In 1940 the Martins unfortunately could not accompany Peggie, the boys and myself but we were joined by Captain (Padre) Roy Durnford and Sgt.-Major Charles Gilbert of Prince Rupert. Charlie knew mountaineering ropes from association with the B.C. Mountaineering Club in Vancouver, while the Padre had done quite a bit of hiking in the hills and was keen for anything. August 3 found us established at the cabins with the aid of Douglas. The following day was rainy, but on the 5th we made an early start to try the new route prospected on that last afternoon's trip the year before. I felt it might be feasible to cross the first glacier and by a bit of rock climbing gain access from the back onto the snowy sky line beyond the obstacles encountered on the rocky ridge in the previous year. George, David and Bruce accompanied us across the smooth part of the glacier and were then sent back to amuse themselves glissading and exploring about the lakes.





1. Seven Sisters Range *Photo Edith Thompson*

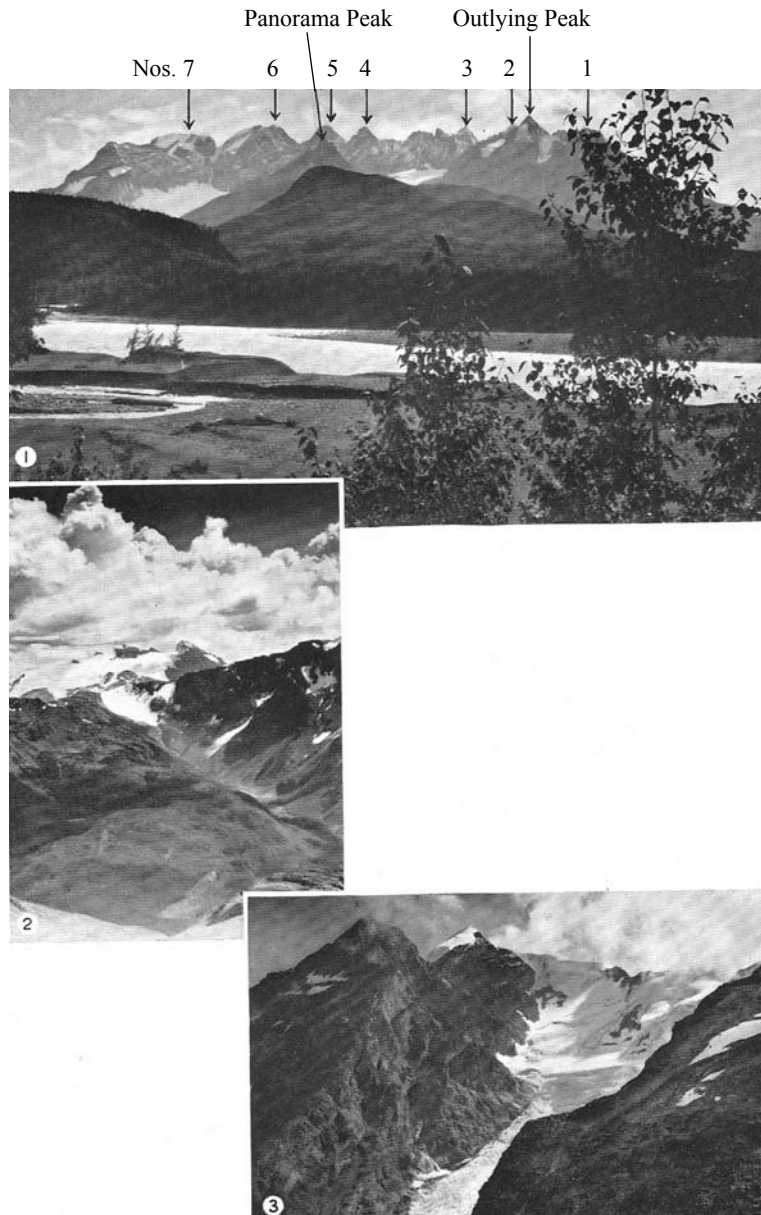
2. Author *Photo N. Carter*

3. Glacier Below Peaks 2 and 3. *Photo N. Carter*

A short stretch of ice-fall at the foot of a buttress called for crampons, then a crevassed névé led up to the base of a cliff, where some trouble was experienced in making contact with the rock. Here the Padre got his first taste of steep rock in the form of a preliminary short chimney, and assured us that he never dreamed mountaineering was ever anything like this ignominious "being hauled to Heaven" at the end of a rope! A respite in the form of a steep scramble up ribs and gullies followed, and would have been enjoyable on a warm sunny day; but lowering clouds were blotting out the slope above. The face got steeper with fewer alternatives of route until we were on really exciting rocks in dismal fog. Peggie and I climbed up as far as the rope would allow, and held a consultation clinging to a ledge more or less in the middle of a waterfall. We could see snow ahead of us, but could not tell for sure whether it led up to the crest that could not be far above us. Then it started to rain. So we reluctantly decided to turn back at 4 p.m. at a point not quite as high as that reached on the other route a year before. We descended as quickly as was safely possible, using the rope freely, and were glad of the Padre's handkerchief which he had parked at the head of the chimney as a signpost for the safe return of the rest of us, avowing that if we ever got him up that cliff, we should never get him down again! We did all get down, however, only to find the glacier in a pea-soup fog.

The boys' returning footsteps were somewhat of a guide over the lower part, though we regretted their little "excursions" made first to one side then the other as they had explored around long before the fog fell. Somehow we got tangled up among the snow patches and rocky outcrops on the broad crest of the ridge beyond the glacier, and in the growing darkness and fog found ourselves travelling over unfamiliar ground with the noise of a roaring torrent below us in the fog to our left where should have been the two placid morainal lakes. It was possible that we had attempted to cross the ridge too low down, below some unnoticed bifurcation, so we straggled back up its crest until my aneroid showed we were well above where we had crossed in the morning, yet nothing seemed to click. By "bug"-light we retreated to a deep vertical crack we had noticed in the rocks and here, well above timber line with no fire, and shelter only from the wind and not the rain, we prepared to spend the rest of the night. We rearranged some of the smoother slabs of loose rock to form a rather uneven platform a few feet down at one end of the crack, covered it with such soggy heather and roots as we could scrape together, put on all our spare clothing, and had a frugal meal. We had ceased to shiver—we merely shook—and had difficulty keeping the rather dry canned smoked salmon on a piece of hardtack until we could get it down. Then we took two codeine tablets apiece ("Snore-ol" according to the Padre), jammed ourselves together between the rocky walls, and at least tried to shake in unison. Some of us got snatches of sleep when it was our turn to be in the centre, and it really wouldn't have been too bad had it not been for the draughts from the naturally-refrigerated "basement" some twenty feet below the bedroom floor. Peggie and I were also somewhat uneasy about the boys, hoping they had got safely back to camp before the fog set in. Just about dawn, I happened to get most of the wet clothing next to me fairly warm and was in a comfortable doze, when I vaguely heard someone say it was getting light enough to see, but that it was still foggy. I grunted, wished I could turn over, and mumbled something about having another half-hour. Peggie, who seemed immune to "Snore-ol" all night, said she could kick me. So we got up.

After another abortive attempt to locate ourselves, we retraced our original footsteps and ice-axe marks in the mud and snow back towards the glacier, and eventually got down off the right side of the ridge still ignorant of just where we had been and where we had spent the night. Part way along the scree slopes rifts in the fog satisfied the Padre and Charlie that they could meander along



**1. View of Seven Sisters Range from Near Woodstock Station,
Mile 79 On C.N.R. Photo Jeff Woodall**

**2. Mt. Sir Robert, First Ascended by Henry Hall in 1939.
Taken from 5650 Feet on Seven Sisters Range. Photo N. Carter**

3. Meanskinhist Peak Photo N. Carter



1. Mrs. Carter, George Baker and Jack Cade on Summit of Meanskinisht Peak *Photo By N. Carter*
2. Mt. Sir Robert (left centre) from 7000 Feet on Seven Sisters Range *Photo By N. Carter*
3. Mt. Meanskinisht (centre snowcap) and Peak No. 1 on Left *Photo By N. Carter*
4. Camp at Lake Above Timber Line. *Photo By N. Carter*

at their own pace, while Peggie and I hastened ahead to forestall any attempt the boys might make to look for us. Not far from the cabin, we heard them in the fog on the ridge above us where, on familiar ground, they were waiting with hot coffee and some food after having spent a comfortable but lonesome night at the cabin. Rain and fog continued intermittently, and except for a short trip the next afternoon to a low peak across the valley from camp, from which we could give the boys a view of Cedarvale and a chance to throw parachutes over the edge of the cliff (hence “Parachute Peak”), nothing more was accomplished. Peggie, the Padre, our boys and I slogged down the trail to entrain for Hazelton, where we left the Padre and picked up our auto for a motor trip around the newly-opened Big Bend and Banff-Jasper highways and sunny points south. Charlie and George left the cabin the next morning, were entertained by the Moberleys, and returned to Prince Rupert to see some more rain.

This business of attempting the ascent of Peak No. 2 was turning into an annual festival by August of 1941. Believing that bad weather could not forever thwart our attempts, we were ready for our third try. None of the adult members of the two former parties was able to join Peggie and myself this year, but as we wanted a climbing party of four, we graduated George Baker from status of companion to mountaineer, and were fortunate in finding that Mr. Jack Cade, an active member of the B.C. Mountaineering Club, residing in Prince Rupert at the time, could be free to join us. With some hesitation we greeted our friends at Cedarvale on the morning of August 7, feeling that if we did not return triumphant, we should sneak through the bushes and get on the train at the next station down the line on our way home. Douglas got us up to the cabins in record time, by early afternoon, and the weather was so fine that I was able to establish a camera station and sighting flag on the ridge above camp before supper.

Next morning the six of us left with sleeping bags and three days' food to camp beside the farther of the morainal lakes in order to provide a nearer base for another attempt on the route up the cliff followed in 1940. It was a delightful spot to camp at, except that there was no firewood. But after dumping our packs, we proceeded up onto the ridge above the glacier to have a look and do a bit of surveying and incidentally to satisfy our curiosity as to where we had spent a miserable night a year ago. In going down the ridge a bit to get a certain view of the glaciers and set up a flag, we spotted what looked like a crack in the rocks; going over to have a look at it, the place was easily recognizable and everyone had a good laugh on me when it was realized how easily I had got lost that night! We had twice ascended and descended the brow of the ridge in the fog, each time crossing the proper place to traverse it without recognizing a thing. On the way back to the lakes we noticed some holes in the rock across a gully and on exploring them found the weathered remains of some dynamite boxes and the tools used in making these prospect holes. The wood obviated the necessity of sending the boys down to timber line for fuel and served to keep the home fire burning merrily if somewhat frugally. That night we chose the softest ledges on a little hump of rock beside the lake and after constructing retaining walls to keep us in place, counted stars until we fell asleep.

Next morning (the 9th) we left David and Bruce asleep and climbed again onto the ridge (“bivouac ridge”) above the glacier, pausing to take a bearing on camp— just in case! A careful scrutiny with glasses revealed that a mild winter had disagreed with the complexions of the Seven Sisters; they had aged considerably during the intervening year and their glaciated faces had developed many more wrinkles. So many, in fact, that we saw no hope of negotiating the ice-fall that had given us comparatively little trouble the year before. We tried to cross to a rocky buttress to the left of the ice-fall but wasted several hours creeping silently past tottering séracs and gingerly over

uncertain snow bridges only to find impassable transverse cracks across each promising lead. So consoling ourselves by noting that the peaks were gathering clouds, we decided to spend the rest of the day in exploring the upper regions of bivouac ridge. It proved to be a nice climb that brought us out not far from the "balanced rock" on the sky line ridge along which our first attempt had been made in 1939. Intermittent rifts in the fog that now surrounded us while eating a belated lunch on a spectacular crest led us to decide that we might again profitably tackle this route direct from the cabins, feeling that given more time a way might be found around the house-like obstruction. On our leisurely return for a second night at the lake we inspected some interesting fossils that had escaped our attention when here two years before and which, at this elevation of over 8000 feet on the sky line, corresponded closely with the leaf imprints and petrified sections of tree trunks we had seen in situ at the shore of our lake almost 2500 feet below. A band of frost-riven greywacke rock encountered on the way down amused us as it clinked under our boots with a sound exactly resembling that of broken crockery, and a final steep glissade proved to be George's downfall.

Sunday the 10th presaged a spell of settled fine weather so we leisurely packed our stuff back to the ridge above the cabins, dumped our crampons and rope at a cache, and after climbing on up to a rocky prominence on the sky line to give David and Bruce an idea of our route and to allow me to make another survey station, we returned to the cabin determined to do our durndest the next day.

The weather was a little uncertain at dawn on the 11th, but Peggie, Jack, George and myself were away by 6 a.m. We picked up our cache at 6300 feet and just as we topped the sky line the sun came over our peak facing us across the glacier. Making good time along this now familiar sky line ridge, we crawled over the balanced rock, humped our way along "hobby-horse ridge" and by noon had reached the impasse that stopped our party at 3 p.m. in 1939. It was no use scaling the near end of the "rock house" ahead because of the formidable overhang at its far end; steep glare ice from the base of its left-hand wall dropped down at such an angle to the glacier below that I did not relish chopping steps across it except as a last resort; so we turned to a closer examination of the right-hand side that shelved off to a cliff above another glacier. Worming our way along a narrow ledge covered with loose rock, expecting every corner we turned would be a blind end, we came to the foot of an ice gully. An hour later the last step up this gully had been chopped and we stepped onto the sky line again to find we were at the base of the overhang. It looked now as though all we had to do would be to climb a short steep bit of very narrow arête and we would be on the near end of the coveted snow ridge that had been our objective for two years. Along this dazzling sky line of snow we would romp, in full view of envious eyes down in Cedarvale, and we would be at the base of the final rocks of the peak in no time at all!

However, the rocks of that arête were about the loosest that I have ever encountered. In one place we had to take to the ice for fear a certain section might give way altogether. Finally we gained the end of the snow ridge at 2.15 (8725 ft.) only to find it was merely a feathery crest, corniced in places, crossed transversely about half way along by a nasty crevasse, and evidently solid ice in places. Apart from these inconveniences, it rose gently to the base of the peak now only half a mile away. To the left the snow rapidly steepened into the upper ice slopes of the glacier visible from Cedarvale. On the right, a very steep thirty-foot pitch of snow gave way to the top of a band of unseen cliff at the base of which lay the glacier we had climbed in 1940. Roped together, we gingerly kicked steps along the top of the crest since a tendency for miniature avalanches to form discouraged any excursions to one side or the other. But the day was perfect, we and our hopes were high, and when we came to the crevasse it was with relief we spied a narrow ledge of

rock formed by the right-hand snow slope having receded a foot or two from the top of the cliff. We climbed down to it, passed the crevasse, and resumed the crest until it became ice. Here the ledge formation again occurred. It took a long time to descend the thirty feet to it—the loose snow overlying the ice had to be removed, to go swishing down the slope below until it hit the narrow ledge, where it cascaded most disconcertingly into space. Once gained, the little ledge continued a surprising distance, so that with a few exciting gaps we were able to pass below the icy stretch of the crest. When it finally petered out, we were able to regain the crest fairly easily and found ourselves close to rock outcrops on the glacier side. One last cat-walk on a knife-edge of snow between two outcrops and we were ready for the peak.

The 300-foot exposed rock of the peak as seen in the photos had caused us some concern from the very beginning, but now that we were face to its face, it wasn't so bad. We had been three hours coming along the last ridge and the time was now 5 p.m. Unroping, we scrambled up the detritus-strewn blocks and ledges abounding in fossils to where a narrow rim of rock underlay the snow cap that had looked so much like an ice-cream cone from Cedarvale. Actually, it was 150 feet high, and as we topped it at 5.30 we were relieved to find that of the three humps on the crested summit, that on which we stood was the highest. My aneroid read 9400 feet though corrections reduced this to a probable 9250 feet.

The view was superb. There appeared to be no higher peak within a radius of at least fifty miles. To the east, the well-known Hudson Bay Mt. (8500 ft.) above Smithers and the Rocher Deboile (7790 ft.) above Hazelton looked rather disappointing. Mt. Sir Robert (8180 ft.) to the south was very striking, but our nearest competitor appeared to be the forty-two-mile-distant Howson Peak to the southeast, triangulated as 9067 feet and still unclimbed. Two unidentified peaks, one far to the southwest and the other away to the north, may be higher. Of the remaining peaks of the Seven Sisters, No. 3 (ca. 9000 ft.) is undoubtedly the most interesting.

It had taken us eleven hours of climbing to reach the summit and the lateness of the hour precluded establishment of a survey station. There was merely time to take a round of pictures and a few movies before backing down off the snow cap to the nearest rocks on which to leave our cairn and record. The cairn is visible from the cabins, but not from Cedarvale. After a bite to eat and a few more pictures, we left the cairn at 6.10.

The route of ascent was followed exactly on the return. The strain was over, and we tended to be hilarious over trifles. We relieved the monotony of backing down interminable steps by holding sweepstakes on the number to a remembered landmark, and by setting times we would try to achieve in reaching certain places on the way down the lower ridges. From the far end of the high crest (8 p.m.) it became a race against darkness down the ice gully (9 p.m.), over the balanced rock (sunset), over plum pudding bump (10 p.m.) and so on until after wearily stumbling over rocks by "bug"-light and falling into holes on the heather slopes above camp, we entered the cabin door tired but happy just five minutes after midnight— eighteen hours since we had left it. Our arrival awakened David and Bruce who eagerly insisted on hearing all about it as we ate a belated supper.

The weather remained glorious but on account of the broken condition of the key glacier there was no easy way of approaching the farther, lower peaks except by a route that would have involved tedious crossings of two deep valleys with packs. After all, it was a holiday; we had accomplished our main objective—so we spent the remainder of the time lazing around, photographing wild flowers, and revisiting some of the outlying ridges for surveying purposes. And we were not afraid to face our friends on our return to Cedarvale!

In the accompanying sketch map the name "Weeskinisht" is applied by the author to Peak No. 2 which was climbed. This is stated to be a more correct variation of the spelling "Wiskinisht" captioning a picture of the range as a whole in an old Grand Trunk Pacific (now C.N.R.) folder. The Indian word means "top of the mountain" and has been in local use. Hence it seems fitting it should be retained as applying definitely to the highest peak, which presents an exposed sweep of at least 8700 feet from Cedarvale (elev. 501 ft.) within a horizontal distance of about five miles. Henry Hall has described the Seven Sisters as ". . . so shaped and situated as to be easily the outstanding sight W. of Mt. Robson."² The exposed sweep of Mt. Robson from the railway is only some 1000 feet greater, and at a further distance. We have suggested suitable names for the two glaciers we crossed, but prefer to leave the remaining peaks designated merely by numbers until someone climbs them.

The rocks of at least Peaks Nos. 1 and 2 are of sedimentary origin, strongly folded, and include conglomerate, sandstone, grey-wacke and argillite, with interbedded volcanic tuffs and small dykes of quartz diorite porphyry as well as mineralized veins as already mentioned. Arboraceous fossils are common and extend from the summit to Skeena valley. A collection in one of the mine cabins included some fossilized clams (place of collection uncertain, but local). The timber line and higher flora were characteristic of coastal to interior B.C. mountains. Game was little in evidence during our visit; goat are said to be abundant, and we saw tracks of deer, bear, moose and goat close to the cabins. Actually, we saw only ptarmigan and one bear.

Geology for Mountaineers

By Charles S. Ney

Geology should be a particularly interesting science to mountaineers. The science and the sport have always been closely associated for reasons which will be discussed presently. Most climbers are, in fact, casually interested, but few have studied geology and fewer still have made a hobby of it.

As a hobby it has a few drawbacks. In comparison with other hobbies, much more factual knowledge is essential. This means study; and little geology has been written with popular appeal, so that study is not altogether fun. Then, even when knowledge has been attained, it is not so easily applied to experience and observation in a way that will give the satisfaction of a hobby.

However geology can be made intensely interesting. Even a slight knowledge enables one to see Nature in a different aspect. The earth becomes a storybook. Streams, land forms, and mountains in particular, all have fabulous tales to tell of momentous events of past ages.

This article is limited to a brief introduction to geology. Its purpose is to acquaint the reader with the main objects and the scope of the science, and to suggest ways of making it a hobby. A list of books and articles has been appended for the benefit of anyone interested in further reading.

GEOLOGY DEFINED

Geology is best defined by considering its object. In a broad sense the object of the science is to determine the past history of the outer layers of the earth. All the events involved in this history can be placed in half a dozen great geological processes. The outer layers are spoken of as the crust, a ten-mile thick zone about which we have more or less direct knowledge. By their form and structure, the rocks of the crust record the successive impresses of the several geological processes.

The main source of evidence for determining the history of the crust is thus the rocks themselves. Additional evidence is obtained by studying the action of rivers, ocean, and air. Still more evidence is obtained from experiments in the laboratory.

THE ASSOCIATION WITH MOUNTAINS

Two reasons for the association of geology and mountains will now be apparent. Because of elevation and steepness, mountain slopes are relatively free from vegetation and soil, so that the rocks are accessible to direct observation. Secondly, steep mountain sides and deep-cut valleys provide a three-dimensional view of the rock structures. Features can thus be seen at a glance in the mountains whose recognition on flat, wooded areas might require weeks of careful mapping.

Another reason which will be better appreciated when more is known about geology, is that most of the mountain ranges are areas of particularly intense geological activity. Their fashioning required the operation on a grand scale of most of the important geological processes. Their present structural and architectural beauty is the cumulative result of these several processes acting slowly but designedly over eons of time.

It might be thought that most geologists would be mountaineers. But this is not the case. Many geologists have not been privileged to work among the mountains. They work on the plains, the barren lands, and down in mines. Others are driven to contempt of the rugged country because they are forced to toil day after day up steep, trailless, jungle-clad slopes. But there are many geologists who, in the course of the day's work, have accomplished feats that alpinists would be proud to write about.

THE GEOLOGICAL VIEWPOINT

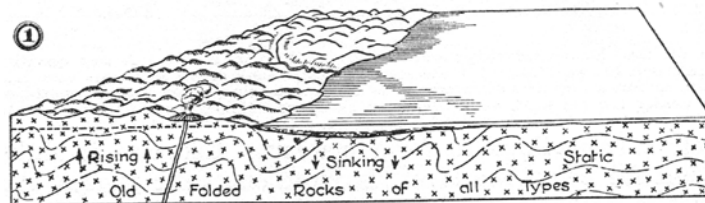
To understand geology more easily one should develop an impression of the scale of geologic time. All processes in geology are very slow by human standards. In the course of a long life, a geologist would see no appreciable change in the character of the earth. Yet he continually thinks in terms of change, and pictures past and future conditions with ease, because he understands the processes which are operating and appreciates what they are able to accomplish in the vast length of time available.

Physicists have shown us, from a study of radium ores, that the oldest known rocks were formed about one billion, five hundred million years ago. This means that all known rocks were formed, and all known geological events happened in this space of time. With all this time available, geologists have, with few exceptions, no trouble accounting for all the events they find recorded in the rocks, without calling on any extraordinary processes, or requiring ordinary processes to go any faster than they are at present.

One billion, five hundred million years is a long time. To this span of geologic history, the span of recorded human history is but as the tick of a clock is to the length of the day.

Often from someone surveying a rugged mountain terrain from a perilous lookout, comes, with a sigh of relief, the statement, "I'm sure glad I wasn't around when these mountains were made." The geologically informed will chuckle at this, realizing that at the very moment the hills in question are being made as vigorously as ever.¹

One should also appreciate the scale of space in geology. The crust was defined as a ten-mile thick shell. Rocks formed at this depth have been raised by mountain-making processes so that they are now accessible to observation at the surface. Great as this depth seems when compared to the deepest mines (about two miles), it is only a thin skin on the earth. A twelve-inch globe would



NOTE:—The width of the block represented is about 200 miles

Fig. 1. On the Left Is a Uniformly Rising Block of Old Rocks

It is being rapidly eroded, and the products of erosion are forming new sedimentary rocks in the shallow sea on the right. A volcano, fed from deep in the crust, periodically adds quantities of ash to the sediments.

show the crust as about as thick as the cover of this journal. The highest mountain, about six miles, gives a difference in elevation of thirteen miles, only a third more than the thickness of the crust. It is evident then that the mountain ranges and the deep sea basins are quite insignificant when the earth is viewed as a whole.

PROCESSES OF GEOLOGY

Erosion is the most familiar and the most fundamental geological process. Wherever land is above sea level, erosion is operating. The chemical action of the air and water; the force of wind,

1. This statement does not apply in every case, and it overlooks the effects of such ephemeral events as rock slides, avalanches, storms, forest fires, etc., which contribute importantly to erosion.

running water and ocean waves, are the agents of erosion. The goal of erosion is the destruction of all land by dissolving it or reducing it to sand and mud, and the transportation of these products to the sea by the rivers and the winds.

If erosion had its way, there would, by now, be no more land remaining above sea level.² A second process prevents such a calamity. This process is called diastrophism, and is the constant adversary of erosion. Diastrophism includes any relative movement between parts of the earth's crust. In mild phases it raises sections of land slowly, imperceptibly, thousands of feet above their surroundings to form plateaus. Likewise it sinks basins far below sea level. In more energetic

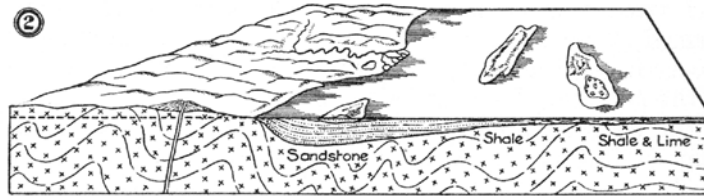


Fig. 2. The Old Land Has Ceased Rising and Is Being Subdued by Erosion.

A vast quantity of sediment has accumulated in the sea. The basin sank as the sediments were laid down, so that a thickness of several miles has been attained. The coarser sandstones are nearer to old land, while the finer shales and limestones extend far out to the right.

phases, the crust is broken by great cracks known as *faults*. These may be hundreds of miles long and show displacements of thousands of feet. In the Rocky mountains a block of old rocks, several miles in thickness, has been thrust eastward for twenty to thirty miles along a gently sloping fault, so that these old rocks now *overlie* much younger rocks. The movement would not be accomplished all at once, but in jerks of fifty feet or less every ten to fifty years. Each jerk would result in an earthquake. In other cases the rocks yield to diastrophic forces by crumbling into colossal folds, such as are familiar to any one who has travelled in the Rockies.

In general, diastrophism raises land above sea level so that erosion can operate. Where it is particularly active, mountain ranges are built. The form of the mountains is, however, due chiefly to erosion. Diastrophism only sets up the material for erosion to work on.

Diastrophism records itself in the structures of the rocks, and when such characteristic

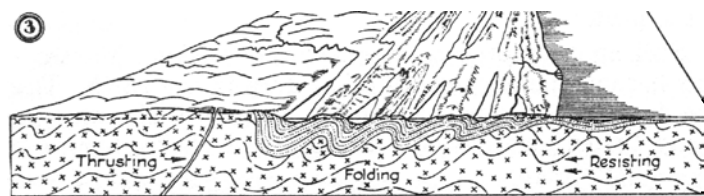


Fig. 3. The Old Land Now Thrusts Horizontally

against the resisting mass on the right, crumbling and folding the newly formed sedimentary rocks in between, and elevating them into mountains, as the sea is expelled.

structures are found, the geologist can infer that mountain building went on in the past, and he can even reconstruct the mountain ranges, even though the area has become flattened by erosion.

The process of sedimentation closely follows erosion. The sands, muds and dissolved material produced by erosion are eventually deposited in seas or large lakes. There they harden

2. Measurement shows that the Mississippi river removes a volume of rock equal to one-foot thickness over its entire drainage area every 7000 years. This would amount to a mile in about 35 million years.

back into rocks, which by diastrophism are sooner or later raised up into land masses and again fall victim to erosion. Such sedimentary rocks are easily recognized by their stratification.

The diastrophic sinking of basins enables sediments to accumulate to depths of several miles. Peculiarly enough, such deep accumulations end up by being compressed from the sides, so that the rocks are folded and faulted intensely, and are thrown up into mountain ranges. The casual observer will have noted that the Rockies are composed of sedimentary rocks. The same is true of most great mountain ranges.

Throughout geologic time, sedimentary rocks were always accumulating in some part of the world. The bulk of them have been uplifted and eroded away, but enough fragments remain to piece together an almost complete sedimentary record of geologic time. By the occasional living things trapped in the sediments and preserved as fossils, paleontologists have been able to trace the evolution of life from the simplest forms of the past to the highly specialized creatures of the present.

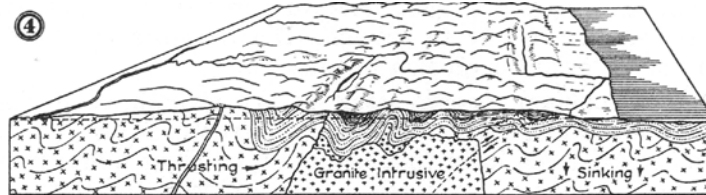
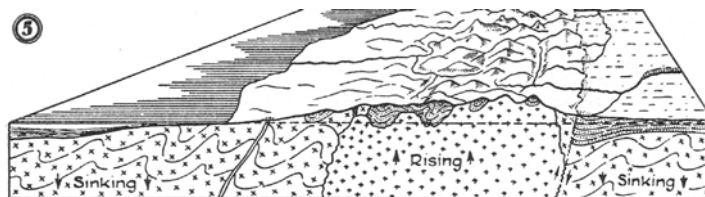


Fig. 4. The Thrusting Continues

Note the steep fault on the left and the flatter overthrust fault on the right of the new mountains. A new drainage pattern is establishing itself. A batholith of granite has made its way up from below, but stops far below the surface. Note the second basin of deposition against the front of the new mountains.

Another process is volcanism. Molten rock from the depths of the earth occasionally reaches the surface and flows out as a lava to harden into rock such as basalt. The volcanoes of the present only begin to suggest the scale on which volcanic activity operated during certain periods in the past.

Still another process is igneous intrusion. Masses of rock become melted several miles deep in the earth. They rise toward the surface, partly melting their way and partly thrusting their way through the overlying rocks.



**Fig 5. The Old Land Is Now Sinking,
and the Ocean Advancing Over It.**

The new mountains are rising rapidly, so rapidly that a steep fault has formed, separating them sharply from the plains on the right. erosion has removed much of the sedimentary rock, and the granite is exposed in many of the high peaks.

They usually do not attain the surface but freeze to solid rock a mile or so below. Diastrophism eventually raises the land, erosion sets in, and in the course of time the overlying rocks are stripped away, exposing the so-called *igneous* rock. The familiar granite of the Coast and Selkirk ranges in British Columbia was formed in this way.³

3. The Coast range is carved from a so-called *batholith* of granitic rock extending from the Fraser river to Alaska, over a width of one hundred miles, and having unknown depth. It is made up of a number of coalescent masses which

The accompanying sketches show diagrammatically how the various processes co-operate in mountain-building. They are much simplified and represent a purely hypothetical case. The time involved in the first two stages would be of the order of thirty million years as a minimum. The last three stages could take place in ten million years or less.

GEOLOGICAL PUBLICATIONS

Geological information is published in the form of maps, descriptive reports, and special articles of various sorts. The Geological Survey of Canada publishes Memoirs, which, with an accompanying map, report on the general and economic⁴ geology of certain areas. They embody the results of a field survey of one to five summers' work by a party of four. The Survey also issues Summary Reports to cover less detailed work in more extended areas. For the 1913 International Geological Congress, the Survey published a set of Guide-Books, describing the geology along the main travel routes in Canada. Similar publications are issued free or at low cost by the Geological Surveys of other countries.

The geological maps are just as informative as the reports they accompany, and for that reason are frequently published separately. They come in various scales from four miles to the inch to several tens of feet to the inch, depending on the type of work they represent. They are accompanied by cross sections which show the structural features projected a mile or more below the surface.

The map primarily shows the areal distribution of rock types, by appropriate symbols, colors, etc. Obviously by no means all of the rock types are represented. They are classified into lithologic units according to a community of time and process of origin. The size of the unit mapped will depend on the scale of the work, and the ease with which the information can be obtained. Sedimentary and certain types of volcanic rocks record diastrophism by the angles to which their originally horizontal layers have been tilted. They are said to be folded. The representation of these folds is of utmost importance. Symbols on the map indicate the angles of tilt and the cross sections show the folds graphically. Faults are also indicated; in horizontal extent on the map, and in vertical extent on the sections. Those with great horizontal displacement are often apparent on the map simply from the way certain rock units are offset. The direction of flow of previous glaciers, if any, will generally be indicated on the map. There are many other features noted in particular cases.

GEOLOGICAL METHODS

Practical work in geology involves a great variety of methods, but in general there are three steps involved. The first is observation. Facts are observed in the field by travelling around to the rock outcrops on foot, in canoe, or in automobile. In recent years air photographs have been used with excellent results. They reveal features that would take weeks of field work to discover. A wide variety of methods, grouped under the title of *geophysical prospecting*, is becoming important in many applications of geology. Observation also extends to the laboratory, where microscopic work, chemical analysis, assays for valuable metals, etc., yield additional data. Observation requires discretion. All the facts seen cannot be recorded; too many are unimportant. The geologist learns by experience which facts to record and which to reject.

were emplaced at various times between 50 and 150 million years ago.

4. It is almost impossible to make a sharp division between "economic" and "pure" geology. Theoretically, "economic" means any direct application of the science to the exploitation of mineral wealth, but in practice all phases of general geology are involved. Mineral deposits are intricately tied up with all the geological processes.

The second step is mapping. This simply consists of putting down the facts on paper to give a symbolical scale picture of the area.

The third step is interpretation. Its object is to work out the true structure of the rocks so that surface features can be projected to depths and cross sections made. Its object is also to work out the sequence of events, or the geological history of the area. In economic geology, its aim is further extended to finding the controlling factors in the location of ore-bodies, so that the occurrence of ore may be successfully predicted. Interpretation comes with knowledge and experience. It must be always active as observation proceeds, and a map is of little value unless it is the result of thoughtful interpretation. The good geologist, as he proceeds with observation and mapping, keeps several possible interpretations in mind, fitting the accumulating evidence to each in turn, until the correct one finally presents itself.

TOOLS OF THE GEOLOGIST

The ordinary walking geologist requires few tools in the field. A rock hammer is essential for obtaining fresh specimens. A small magnifying glass is essential for examining them. A little hydrochloric acid is often carried for testing for limestone.

Usually the geologist is provided with a base map giving the topography, streams, towns, etc. All he has to do is keep himself located and locate all the data he finds on the map. For this he needs a good compass,⁵ a protractor for laying off the angles, a scale for distances, and a pencil.

With scales of four or one miles to the inch, distance is measured by pacing, which is recorded by a hand-operated tally. Locations are checked as often as possible by compass bearings on hill-tops, stream junctions, etc. With larger scales, more accurate surveying instruments are necessary. Where visibility permits, a plane table⁶ is very convenient.

The methods of geophysical prospecting generally require expensive and complicated instruments, and an expert's interpretation. There are few cases where they could be of assistance in ordinary four-mile scale mapping.

Electrical and magnetic methods have been quite successful in the location of ore deposits, where surface showings are wanting. The seismic method, based on the travel of artificial earthquake waves through the rocks has been used with remarkable success in oil prospecting, and has also been applied in the solution of theoretical problems relating to the strength and stability of the earth's crust.

In the laboratory the most important instrument is the microscope. Rocks are examined to determine their composition, mode of origin, and other characteristics. Ores are examined to determine their mode of origin; to determine what valuable minerals are present, and how they may best be recovered.

THE PURSUIT OF GEOLOGY AS A HOBBY

The first step is to acquire some knowledge of the subject. This may be the most tedious step. There are many good texts, popular books, articles, etc., on elementary geology, which can be found in most public libraries. They are quite simple to read; the subject is just common sense, once you learn the point of view. Having attained a considerable general knowledge, the amateur will find a variety of fields to study.

5. The *Brunton Compass* or pocket transit is universally used by geologists. It is designed for rapid reading of horizontal and vertical angles. The sights fold into an unbreakable case.

6. The drawing board is carried on a tripod and the map compiled directly in the field, eliminating tedious plotting in the office.

PHYSIOGRAPHY

This is the study of erosion and the shaping of land forms. It is the simplest field for direct observation. Processes of weathering are easily seen and understood, once they have been pointed out. Likewise the processes of erosion, particularly when sudden storms give rise to devastating effects close to home. It may not be easy to believe at first that valleys are formed entirely by the streams that flow in them, when year after year they look just the same. However, a keen observer will note changes, and with a sense of geologic time, will readily associate the physical features with the agents that produce them.

The courses of streams, and the resulting forms of the physical features, are determined by the structures in the underlying rock, and the nature of the diastrophic activity the area has been through. Physical features and stream patterns are thus in themselves a key to the underlying geology and past history.

To mountaineers the work of glaciers ought to be of great interest. Their work and effects are certainly easily observed; the cutting of cirques, the steepening of valley sides, and the piling up of moraines are familiar to everyone who has travelled in glacier-hung country. Mountaineers are in a position to make valuable contributions in the observation of present extent, former extent, and movement of glaciers in little known areas. Some have already done so.

It must be remembered that the effects of glaciers on the present landscape vastly exaggerate the function of ice during most of geologic time. Periods during which the work of ice was at all important in the history of the earth make up only a very small proportion of the total time.

PETROLOGY

This is the study of rocks from the descriptive and the genetic point of view. One should learn to recognize the main types of rocks in the field. Many texts have good photographs of the various types. Examples can be seen at museums, universities, etc., or can be bought from scientific establishments. Recognition of the type should always be backed up with a knowledge of the composition and the mode of origin. The student will soon learn not to be attracted so much by loose rocks or *float*, but to examine the rock as it occurs in place, and study its relations to the surrounding rocks.

The more industrious amateur might be interested in more detailed study of the texture and composition of rocks. This comes under the heading of Petrography. Chips of the rocks are ground into thin, transparent sections and studied under the microscope.

MINERALOGY

Study of rocks should be accompanied or preceded by a study of minerals. Minerals are the *species* of the inorganic world. They have a definite chemical composition, and a definite set of properties (color, lustre, hardness, and others), and their constituent atoms are arranged in a definite geometric pattern. The latter characteristic determines the shape of their crystals, and certain other physical properties. Some two thousand species have thus been described and named; about a hundred are commonly met with. They are recognized and identified by their distinctive properties, or as a last resort, by chemical properties. Many of them are very pretty, and worth collecting on that account. Gems are minerals which are particularly desired by reason of beauty, hardness and scarcity.

Apart from their outward beauty, minerals have much to tell about the physical and chemical conditions prevailing at the time of their formation. As with the rocks, a general knowledge of a mineral and the field relations are of utmost importance in the appreciation of the mineral.

PROSPECTING

Many minerals are ore-forming. That is, they contain valuable metal, which may be extracted at a profit if the price of the metal offsets the cost of mining, extraction, transportation, etc.

A prospector must first be able to recognize the minerals which may be valuable. He should know something about the form and origin of the various types of ore deposits and the geologic structures with which they are associated. When available, geological maps are an invaluable aid to the prospector in delimiting the most favorable localities and ruling out the least favorable. New valuable minerals and new or unsuspected occurrences of old minerals are always being discovered. In areas that have been thoroughly prospected for gold, it is probable that valuable deposits of mercury, tungsten, magnesium, or beryllium are yet to be found.

PALEONTOLOGY

This, the study of the life of the past, is one of the most fascinating phases of geology. It is also one of the most useful. The development of a complete geologic timetable⁷ would hardly have been possible were it not for the information given by the occasional fossil remains of an evolving life, which are preserved in the rocks.

It is certainly a thrill to break out of the solid rock, the remains of some exotic plant or animal that flourished millions of years ago. Practically any sedimentary rock formation is liable to contain fossils. A little experience helps in finding the best types of rock and in following up the best horizons. Geological maps generally have the best fossil localities indicated, but there will be many undiscovered, for the amateur to find.

GENERAL

Many of the areas in which the amateur does his hiking will have been studied by professional geologists, in which case geological maps and reports will be available. Much of interest will be found by following up and observing the features indicated on the map and described in the report. Beyond the limits of the map the amateur can do reconnaissance on his own and extrapolate the mapped data into the unmapped areas, besides making new discoveries.

SUGGESTED READING MATERIAL

The following books and articles have been found to be particularly good for obtaining a general knowledge of geology, without being too technical. Reports on selected areas are not included. Most of these are published by the Geological Surveys of the state, province, or country. In Canada the Geological Survey publishes a large number of maps, bulletins and memoirs. These are obtainable free of charge from the Ottawa or Vancouver offices. The U.S. Government makes a small charge. If information on any area is desired, the best thing to do is write to the director of the Geological Survey and he will tell you what information is available, and probably send what is free. Most of the others listed are to be found in public libraries; all will be found in University libraries.

GENERAL GEOLOGY

Outlines of Physical Geology, by Longwell, Knopf and Flint.

Outlines of Historical Geology, by Charles Schuchert. John Wiley and Sons, New York; several

7. The time-table is just a condensed chart of geologic history. Time is divided into five major eras, each of which is divided into a number of periods. The age of a sedimentary rock formation can be referred to one of the periods by a study of the degree of evolution of the fossils found in it.

editions. Recent editions are in one volume. This is a first year university text, but is written simply enough for anyone to read.

Earth Lore—Geology without Jargon, by S. J. Shand, 1933. This is written in a novel and interesting way, unlike any text, but covers the essentials of the important phases of geology.

PHYSIOGRAPHY

Geomorphology—An Introduction to the Study of Land Forms, by Lobeck. McGraw-Hill, 1939. Beautifully illustrated and well written; giving the geological background of all land forms.

Geologic History of the Yosemite Valley, by F. E. Matthes, U.S. Geological Survey, Prof. Paper 160, 1930. Deals mainly with the glacial and physiographic history of the area, but gives an interesting outline of the geologic history of the Sierra Nevada range in California.

MINERALOGY

Field Book of Common Rocks and Minerals, by F. B. Loomis. Putnam's Sons, N.Y., 1924. Simple descriptions and colored illustrations of the common rocks and minerals, with brief notes on geological occurrence.

Dana's Textbook of Mineralogy, by W. E. Ford. Wiley, N.Y., 1932. A very comprehensive text covering the crystallographic, physical, chemical and optical characteristics of over a thousand minerals.

PALEONTOLOGY

Before the Dawn of History, by Charles R. Knight. McGraw-Hill, N.Y., 1935. A description of a set of scenes representing the life of the past. Many are reproduced from the author's own murals in the American Museum of Natural History.

Plants of the Past, by F. H. Knowlton. Univ. of Chicago Press. A popular introduction to Paleobotany by one of America's best authorities.

GENERAL

The Last Million Years, by A. P. Coleman. Univ. of Toronto Press, 1940. An account of the last ice-age. Deals principally with eastern Canada, and treats the Cordillera rather sketchily. It reads from the point of view of an observer piecing together the fragments of information available.

There are many good articles on earthquakes and volcanoes in the *National Geographic Magazine*. An article on the eruption of Katmai, Alaska, by Robt. F. Griggs, appearing in September, 1921, and one on the great earthquake in Kansu, China, appearing in May, 1922, are particularly interesting.

The memoirs and guide-books of the Geological Survey have been referred to. It might be noted here that many of the memoirs are good reading in addition to being a description of an area. Some of the earlier ones, of twenty to thirty years ago are more detailed and descriptive than the more recent ones, which are generally terse and take a lot for granted.

A Contribution to the History of Winter Climbing, Ski-Mountaineering and Ski-ing In Canada¹

By A. A. McCoubrey

“There remains a small minority which is passionately interested in the details of Alpine history and this minority devotes much time to research and publishes many books and articles for the benefit of their fellow students. They will argue with the vehemence of experts on questions which leave most people very cold. Problems such as the alleged first ascent of the Finsteraarhorn in 1812 are still capable of providing spirited controversy. It is, of course, perhaps easy to take such matters too seriously. The question whether X did or did not reach the summit of a particular peak is not a matter of international significance. And yet the best things in a man's life are often his hobbies, and if he will not take his hobbies seriously life will lose half its charm. And mountaineering is some thing more than a hobby.

—ARNOLD LUNN

During the preparation of some notes on winter climbing and ski-mountaineering in Canada, it became obvious to the writer that very little information had been published on the early history of ski-ing in Canada and that little by no means remarkable for its accuracy. Hence this study was extended to include some facts regarding the latter. In a country such as Canada, extending as it does, some three thousand miles from east to west and in which development (in part of the period under discussion) took place independently, in both east and west, it would be unwise to dogmatize on the subject. Some of the actors of the period are still living and it is with the hope of provoking discussion that these notes are written. Thus and thus only, may we arrive at the facts and so permit the history to be written with some degree of finality.

The growth of interest in ski-ing in the North American continent and its extension to the mountain areas of Canada has led to the inevitable—the ascent of mountain peaks partly or wholly on skis. Some of the participants have given wide publicity to their efforts, and extravagant claims of “first” this or “pioneer” that have been made. It has seemed desirable to gather together the available information, search diligently for such additional material as might be garnered and place the whole on record. If by so doing, discussion is elicited and additional matter discovered, the purpose of the present writer will be served.

WINTER ASCENTS

Many years ago² Marcel Kurz, author of “Alpinisme Hivernal,” raised the question, «Quelle époque de l'année doit-on comprendre sous le nom d'hiver»? After stating that he has searched for a solution in the year books of different Alpine Clubs he goes on to say:

“It is clear, therefore, that climbers do not agree as to the duration of the Alpine winter, which is natural enough, seeing that the Alpine winter is very variable. Sometimes, it only begins in December and lasts till May. It may, therefore, happen that an ascent towards the end of a snowless November is classed as a winter climb, whereas an ascent at the beginning of April, which may present all the characteristics of a real winter expedition, is not admitted in the Alpine records of a Club as a winter ascent.”

1. This is the preliminary part of a paper written in 1933-34 (and set in type in 1934). Pressure of other matters temporarily diverted the writer's attention from its completion and lack of space from year to year prevented its inclusion in the *C.A.J.*

The marked increase in interest in the subject since 1934 has prompted its inclusion.

2. *Ski*, 1918.

He then defines:

“(a) WINTER EXPEDITIONS—As winter expeditions we define every tour carried through either on foot or on ski during the winter of the Calendar (December 23rd to March 23rd). If ski are used, this fact must also be mentioned.

(b) SKI EXPEDITIONS—Every expedition made partly or entirely on ski is to be considered a ski expedition, whatever may be the period of the year. Ski being considered as a means to mountaineering, their use will be subordinated automatically to snow conditions. Where these are favorable, ski will be used, where unfavorable, ski will be removed.

The question as to the limits between which one can define an expedition as a ski tour, when the ascent has been made partly on ski and partly on foot, has often been discussed. This problem appears quite futile to me. Mountains accessible on ski to their summits are an exception. It is, moreover, very rare that lofty snow peaks, such as the Ebnefluh or Zermatt Breithorn, afford good ski-ing to the actual summit, for the snow is usually swept and crusted! by the winds, and the final slopes are more accessible on crampons than on ski.

Under such conditions, the ski-runner who is not an imbecile will leave his ski the moment that further progress is easier on foot.”

Arnold Lunn, after quoting Kurz as above, states:³

“Marcel Kurz’s definition of winter has certainly the merit of fixing a precise period, and of selecting the period officially known as winter A definition which remains the same for all winters is purely conventional, whether we accept the definition of Akademischer Alpen-Club of Zurich and fix winter as beginning on November 1st and ending on April 1st, or the equal arbitrary period of the calendar. The calendar winter is no heaven-sent definition We prefer to judge each expedition on its merits. A climb done under winter conditions is a winter climb. Expeditions in December, January, February and March are always winter expeditions. In these months, the High Alps are deep in snow, and the valleys are, for the most part, snowbound as well. That is what we mean by winter. November and April are doubtful.”

After quoting specific examples, Mr. Lunn concludes:

“So that we can say that, whereas December to the end of March is always winter, October is occasionally, November perhaps usually, and the first half of April nearly always winter.”

In the Canadian Cordillera in which winter expeditions have been recorded, we are dealing with a terrain covering, roughly speaking, fifteen degrees of longitude and eleven degrees of latitude, bounded on one side by an ocean and on the other by plains stretching for a thousand miles. Hence we may expect, and do indeed find, climatic variations of considerable magnitude⁴ during the same period. For the purpose of this discussion therefore, it will perhaps serve our purpose if we establish an arbitrary period and take that of the Akademischer Alpen-Verein of Berlin, November 1 to April 30 as our winter.

With regard to Kurz’s definition of ski expeditions, we may agree generally. Possibly more than half of the recent winter ascents in the Canadian Rockies have been made to the summit entirely on skis, yet in time it will no doubt prove to be true that “Mountains accessible on ski to their summits are an exception.”

That this is apparently not true at the present moment is due to the fact that, in the Main Range of the Rockies at least, ski-mountaineers have deliberately, in their pioneer efforts, sought peaks on which skis could be used to a great height, if not to the summit. Most of the ascents have been made near the crest of the range where geological structure (flat lying and gently inclined

3. *The British Ski Y. B.*, Vol. I, No. I, p. 81.

4. *The Temperature and Precipitation of British Columbia*, A. J. Connor, Ottawa, 1915.

strata) and numerous glaciers are peculiarly favorable to winter ski-climbing.

The Scandinavian type of terrain in certain coast peaks, where steep and heavily timbered slopes discourage traversing and make excessive side-stepping necessary, and the exploits of the Neave brothers on the upper slopes of Mt. Collie⁵ tempt me to include a subsection—side-stepping expeditions! I would not, however, agree to include my friends in Kurz's definition of those who keep their skis on, when they should leave them!

Signs are not lacking⁶ that there is a tendency in certain quarters "to regard mountains primarily as things you slide down." Happily, history goes to show that many mountaineers have been converted to the use of skis. It is, perhaps, not too much to hope that it is possible to convert many ski-runners to mountaineering.

5. The British Ski Y. B., Vol. VI, No. 13, 1932, p. 383.

6. C.A.J., Vol. XX, p. 108.

IN MEMORIAM

ALEXANDER ADDISON McCOUBREY

1885-1942

The life of A. A. McCoubrey, which terminated at the age of fifty-six, was a less than half-known tale to most of his later friends. The reason lay to a large extent in his own nature; for though he had a remarkable memory and a real sense of history, his conversation turned more to the future than to the past and least of all to himself.

Though he was wont to refer to himself as an Irishman, Mac was born in Glasgow, the youngest of the five sons of James and Isobel McCoubrey. He early demonstrated his qualities as a scholar by a brilliant record at the Albert Street public school. He remained a scholar, in the truest sense, until his death on February 12 of this year.

With his father, an engineer by profession, he spent several boyhood years in Spain. At the age of fifteen he came to Canada with his mother and worked on the farm of an older brother at Crandall, Manitoba. The hard routine did not prevent his private pursuit of knowledge, though it sometimes impelled the use of a barn door for solving algebraical equations.

In 1904 he was engaged for survey work in Saskatchewan by the Canadian Pacific Railway, which thereby acquired his efficient and devoted services for the ensuing thirty-seven years of his life. Location work was followed by appointment as a draughtsman in the Winnipeg offices of the Company in 1907. He became Chief Draughtsman of Western Lines and was promoted to the rank of Assistant Engineer.

In 1912 he married Jennie Manthorne. Her death six years later left him with a daughter, now Mrs. Olaf Knudson of Winnipeg and a son, Alex. In 1922 he married Alberta McCallum of Winnipeg, who survives him. His wife and two sons, Alex and Neil, are well known to many members of the club.

During the successful pursuit of his profession, Mac was engaged in a range of activities which entirely baffles any attempt at a summary presentation of his life. His keen interest in science led him in 1917 to undertake extra-mural studies at the University of Manitoba, from which institution he later received the degree of B.Sc. He was a leader of student activities, was in great measure responsible for the formation of the University of Manitoba Students' Union and became its first president. Thereafter he maintained, until his death, a close connection with university affairs as a moving spirit in the counsels of the alumni and as a personal friend of innumerable students and members of the staff.

Mac had a catholic taste for sports and games. He was a skilful performer at golf, tennis and curling and was never too busy to spend a hilarious hour at the billiard table or the bowling alley, where mutual recrimination and cheerful profanity were the order of the day.

His versatility never degenerated into dilettantism. Whatever he undertook was subjected to critical analysis and accompanied by a study of all available literature. His extensive and valuable library was constantly overflowing into new and surprising quarters of his house. The guest incautiously stepping into the rear seat of Mac's ever-hospitable car and intent only on avoiding the obvious danger of impalement on ski poles or ice-axes, was likely to land heavily on a volume of European history or release an avalanche of periodicals and phonograph records. His love of good music was accompanied by a discriminating taste in water colors and wood-block



A. A. McCoubrey
Photo Nicholas Morant

prints. His expert use of the camera reflected the artist as well as the topographer. He was a prize-winner in numerous photographic competitions.

Though a pioneer at heart, Mac never played from choice the part of the lone wolf. He was a thorough believer in the value of organization. The threads of his interests run through the fabric of a score of clubs and societies, among which may be mentioned the Royal Geographical Society, the Scientific Club of Winnipeg, the Manitoba Natural History Society; the Ski Club of Great Britain, the Winnipeg Ski Club, the Puffin Ski Club, the Snow Birds Ski Club, the La Riviere Ski Club; the Alpine Club (London), the American Alpine Club, the Club Alpin Français, the Dolomite Club of Winnipeg. Some of these he founded, others leaned heavily on his leadership and guidance. In his work within these organizations there was a constant struggle between his natural shyness and his impatience with ineptitude and inefficiency. He was too much the reformer to play with ease the part of a disinterested onlooker. There were many occasions, however, when he felt that he should leave the floor entirely to others and he would sit, maintaining with immense self-control a masterly silence.

Soon after his arrival in Winnipeg Mac began to ski, at a time when ski-ing was virtually unknown to Canadians except those of Scandinavian origin. He studied the early books of Richardson, Rickmers and Caulfeild and patiently practised the art of downhill running on the twenty-foot banks of the Assiniboine river, where his weekly "classes" encompassed the downfall and willing subjugation of a host of friends. The more recent development of the La Riviere grounds in southern Manitoba, to which ski trains now bring many thousands of skiers each year, was the direct result of his energy and enthusiasm. He organized and was the first president of the Central Ski Zone of the Canadian Amateur Ski Association. He anticipated the development of the sport in the western mountains by ski-ing in the Selkirks in 1911 and 1914 and at Lake Louise in 1922. He visited Hollyburn in 1930 and for the last ten years of his life he made annual expeditions in winter or spring to the Yoho valley, Lake O'Hara and elsewhere in the Rockies.

Mac joined the newly-formed Alpine Club of Canada in 1908. For many years thereafter he was an infrequent visitor to the annual camps, his holidays being expended in the more arduous pleasures of blazing trails to the mountains of his own choice. His small figure, underpinning a staggering load, would dive into the rain-soaked underbrush of some remote valley, to emerge two or three weeks later with or without new peaks ascended, but always with new knowledge gained and a brilliant plan for next year.

Later he became more and more a leader in the affairs of the club. He was for many years the chairman and mainstay of the Winnipeg section, was Vice-President of the club in 1928 and President from 1932 to 1934. Members will have formed their own opinion regarding the manner in which he discharged the responsibilities of this office and also the onerous duties of editing the Journal and the Gazette, which have been in his hands since 1930. His work as chairman of the Ski Committee, in the establishment of climbing huts and in the supervision of the annual ski camps was an outstanding contribution to the progressive life of the club.

There is little risk in saying that at the time of his death no other man was so thoroughly informed on all phases of Canadian mountaineering and ski-ing, or so well versed in the history of their development. His own hand, not always revealed, played no small part in shaping the course of events. His knowledge, his library and his time were always at the disposal of the inquiring mind. His pockets habitually bulged with a seeming confusion of miscellaneous notes and correspondence but everything was neatly filed and labelled in his orderly mind, ready for instant reference.

The list of Mac's mountain ascents is impressive, though the number of his climbs has been exceeded by others. His short vacations, largely spent in trailless regions of heavy rainfall and

difficult approaches, did not readily yield a rich harvest of peaks. The low-lying, heavily forested valleys of the Selkirks and Purcells are portals only for the climber who can work and wait,—often enough until the “next year” that never comes. Some forty ascents in these ranges, including fifteen “firsts,” were the high lights of a long series of patient explorations. A fine Purcell peak, in defiance of his express suggestion, bears his name. His last campaign in his own Purcell range, in 1933, resulted in the brilliant locating and ascending of the little-known Leaning Towers. He told the story in a notable contribution to the 1934-5 Journal. A previous article had appeared in the 1929 issue and his accounts of the first ascent of Mt. Coppercrown and of the fine peaks at the head of Hamill creek were published respectively in the *American Alpine Journal* and the *Alpine Journal*. Many of his climbs, however, have never been recorded in print. Time never allowed him to write the classic which Canadian mountain literature sorely needs and which Mac’s ability and knowledge might have produced. For in addition to his appreciation of literary style and human incident, the places which he visited became, through the breadth of his interests and the manner of his travelling, peculiarly and intimately his own.

His many ascents and high-level tours in the Rockies cannot be dealt with in the scope of a brief notice. His climb of Mt. Vice-President in the spring of 1932 initiated ski-mountaineering in the Yoho region and he took part in its further development until 1941.

In 1939 he realized a long-standing ambition by spending part of the summer in Europe, where he travelled extensively through the British Isles and visited such mountaineering shrines as Zermatt and Wengen. In Paris he augmented his collection of old maps, making full use of his professed knowledge of the French language, namely, the word *avec*, meaning *without*.

Mac was a competent rock climber, but his special qualities as a mountaineer lay in wider applications of the sport. Few amateurs possessed his knowledge of snow or his judgment in the selection of a route. His insistence on climbing with safety, with proper use of the rope and with consideration to all concerned, made him an ideal leader for younger climbers. He was always at his best, indeed, in the company of younger people, whether they came to climb with him in the rock quarries at Gunton, to join in an evening’s entertainment in town or, as men in the Services, to find a congenial haven in his hospitality. His ever-active sense of humor, which could be biting on occasion, was ample insurance against mental stagnation. He had the resolution to drive himself day after day, in the mountains or in the city, and he had the quick courage for an emergency. I have a very vivid recollection of a moment during our first climb together, on an unnamed peak in the Purcells. On the descent, with a hard day behind us and the rope in stow, we reached a belt of cliffs. Our easy progress across the face of these was interrupted at one point by an exasperating little traverse of a few steps only, on sloping rock, without contact for the hands. He said, “We’ll keep close together here.” I reached small holds on the farther side and waited. As Mac came within arm’s length his edge nails, worn by long days of travel, slipped on the smooth rock and he started to fall. He made not the slightest attempt to plunge forward and grasp me but merely lifted his arms, so that it was easy for me to lean out and pull him in by the waist. He had deliberately and instantaneously elected to take his chance on the action of an inexperienced man, rather than to risk a double fatality by following an all but overwhelming impulse.

Mac did not apply his principles of safety first to his daily life. For several years he had known that over-exertion was dangerous. He remarked after one warning that he would rather be dead than inactive, and the proof of his words lies before us. None knew better than he how to fill the unforgiving minute. He died, as he would have wished, in the course of a busy day. There would have been cold comfort in the spectacle of a McCoubrey shorn of his abounding energy and

many-sided activity. We, his friends, will not condemn his decision, though for us henceforth there can be no mountains without memories.

—F.N.

It will be remembered that in 1906 the Alpine Club of Canada was founded at Winnipeg. A. McCoubrey was a Winnipeg man, Chief Draughtsman and Assistant Engineer of the Canadian Pacific Railway Engineering Department at Winnipeg. One of our earlier members, he joined the club in 1908.

As one of the Old Guard, his keen alpine instincts and steadfast promotion of the club's ideals, as set forth in its constitution, made him a very valuable member and, in due course, Vice-President (1928) and President of the club (1932). In 1938 he was elected an Honorary Member of the club. As climber and explorer, he made his mark and some of his records may be found in the pages of the *Canadian Alpine Journal*.

His chief and most lasting work was done as Editor of the Journal, a work in which he delighted and which he accomplished with universal satisfaction for twelve years. The writer, as Editor of the Journal for twenty-two years, can feelingly emphasize its exactions and diplomatic requirements.

Much interested in glaciers and glacial investigation, for many years he was Canada's representative on the International Commission of Glaciology, taking over the job when the writer found it necessary to retire from it. His professional skill made him a very suitable incumbent and many valuable reports of Canadian glaciers have been rendered by him.

Ski mountaineering, at which he was an adept, was a favorite pursuit and its enrolment as one of the club's major activities is due to his organization and leadership.

A fine, fearless, downright character and personality, he was a friend' to all who knew him and the writer desires to acknowledge his very real, practical and moral support during the early and difficult days of the club. We shall miss him greatly and our consolation and hope is that in the heights to which he has now risen his best desires may attain fulfilment. *Sic itur ad astra*.

It was a very great pleasure to have met him again at the Glacier camp last summer, looking so well and so happy amidst his old alpine friends in the surroundings he loved so well.

—A.O.W.

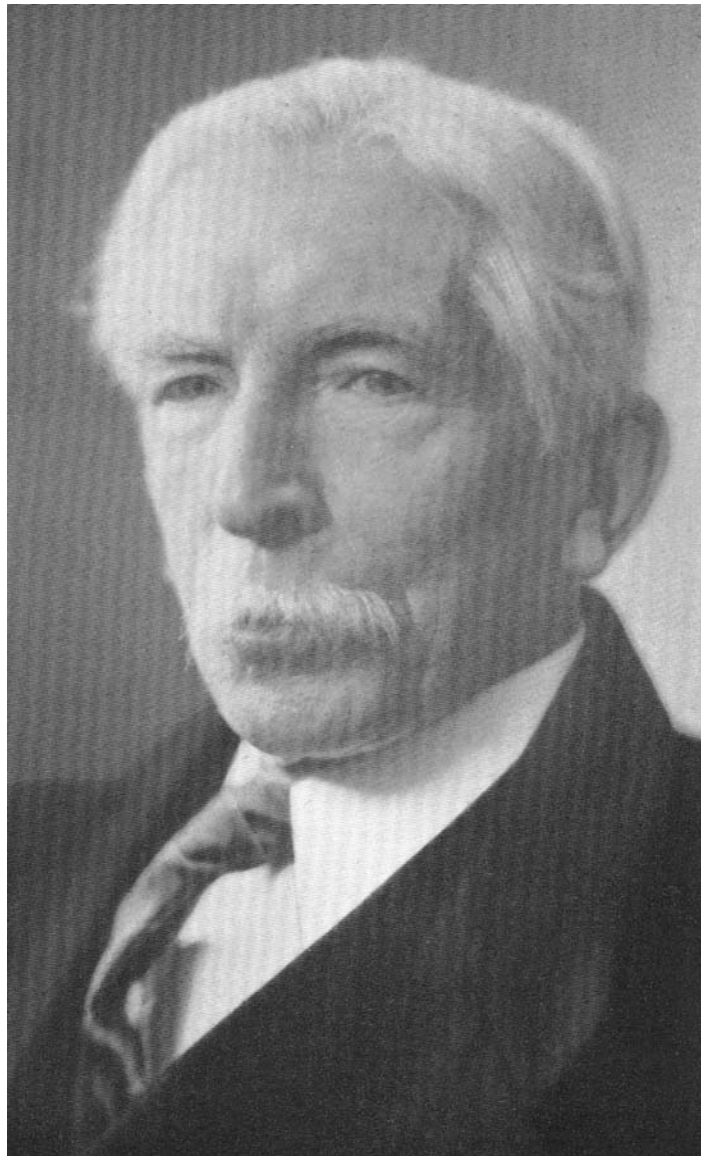
JAMES BONAR, M.A., LL.D., F.B.A., Litt.D.

1852-1941

James Bonar was born on September 27, 1852, at Kinrossie near Collace in Perthshire where his father, the Rev. Andrew Bonar (brother of Horatius Bonar, the hymn writer) was minister. In 1856, Dr. Andrew Bonar moved to Glasgow to become the minister of Finnieston Church and in Glasgow James Bonar was educated, first at Glasgow Academy then at Glasgow University from which he passed as a Snell Exhibitioner to Balliol College, Oxford.

After obtaining his degree (a First in Lit. Hum. in 1877) he went to Germany for some months' study at the Universities of Leipzig and Tübingen. On leaving these universities he went to live in East London, lecturing on Economics as a pioneer in the University Extension movement. Deeply interested in the condition of the people he had great faith in the co-operative movement and remained a Liberal and a Free-trader all his life.

In 1881 he was appointed Junior Examiner in the Civil Service Commission. In the following year he married Mary Mewburn Miller, a grand-daughter of Francis Mewburn of



Dr. James Bonar

Darlington, solicitor to the first railway and friend of George Stephenson. They had two sons and two daughters of whom one son and two daughters survive.

In 1895 James Bonar was promoted to the Senior Examinership of the Civil Service Commission and in 1907 went out to Canada as the first Deputy Master of the Royal Mint at Ottawa. Only a year after the beginning of their life in Canada he suffered, in the death of his wife, a bitter loss which he felt to the end of his days.

He remained in Canada until his retirement in 1919 when he returned to his former home at Hampstead. Here he lived a quiet, regular life, always busy with his writing or among his books. In his retirement he followed a strict routine rising soon after 6 a.m. and leaving the house by 7 o'clock for a walk over the heath before breakfast. If alone he would enjoy stopping for a chat with a milkman or road-sweeper or a policeman on his round; sometimes his companion was Mr. Ramsay Macdonald, then Prime Minister and a near neighbor. He was the most democratic of men and to him a man was a man and interesting as such regardless of rank or wealth.

His best known books are *Malthus and His Work* and *Philosophy and Political Economy*. Besides these and other books he wrote innumerable articles and reviews.

He kept his youthful spirit to the end. A day or two after his 85th birthday he took a short trip in an airplane to see what it was like! In youth he was a good fencer and skater and while he was in Canada pluckily learned to ski.

His first climbing was probably done in the island of Arran. Later, in Switzerland, he climbed Mont Blanc, the Jungfrau and the Wetterhorn (this last in his 61st year). He joined the Canadian Alpine Club in 1909 and retained his membership for the rest of his life.

James Bonar kept his good health almost to the end, finally passing away in sleep through the weakness of old age on the morning of January 18, 1941.

—e.m.b.

BRIGADIER-GENERAL CHARLES HAMILTON MITCHELL **D.S.O., C.M.G., C.B.**

1872-1941

It came as a great shock to learn of the Brigadier's having answered the last roll-call on August 26, 1941, at Toronto. He had always looked in the best of health ever since I first met him in October, 1889, kicking football on the campus of the University of Toronto where he had just registered as a freshman in the Faculty of Applied Science. He then displayed that spirit of friendliness which characterized his whole life. Our courses ran parallel, he in Applied Science and I in Arts. For the first year, we had a number of classes in common and the University fire of February 14, 1890, brought close contact with the students in the old School of Practical Science where the University library had to be housed for a couple of years and where the annual examinations and open Lits. were held. The Brigadier graduated in Applied Science in 1892 and immediately commenced private practice in engineering at Niagara Falls. Our ways diverged and afterwards it was only occasionally that I saw him and it was, therefore, a source of pleasure to meet him in 1911 at the Sherbrooke lake camp of the Alpine Club of Canada which he had joined in 1908. He was at both the 1913 camps, Cathedral and Robson, with his wife and father, the latter the Rev. George A. Mitchell, then a retired Methodist minister.

The outbreak of war in August, 1914, found him in the army and he was unable to return to camp until the Welcome Home camp at Assiniboine in 1920, but during his five years absence



Brigadier-General Mitchell

overseas, he kept in touch with the club by letter and, when Chief of Staff with General Plumer in Italy, he sent to our Director the Alpini cape and hat which we have seen at so many subsequent camps. The friendliness of the Brigadier is illustrated by a little incident at Golden valley where we tarried for dinner and overnight on the way out from Assiniboine in 1920; the Brigadier thought that the lady in charge should know of our appreciation of her kindness in looking after her guests and he prepared and had signed by every person a unique round-robin expressive of their thanks.

In more recent years, the Brigadier never got beyond the Club house to which he made the odd present of objects of interest. He was the Eastern Vice-President for three terms 1916-18, 1918-20 and 1930-32. He was a loyal, enthusiastic member, abounding in good spirits and good fellowship and exceptionally friendly with all. He was athletic and resourceful; a man of good judgment and an excellent climber.

He always took an interest in military matters, having joined the Militia as a Lieutenant in 1899. At the outbreak of war he was Major in Corps of Guides and Divisional Intelligence Officer on General Staff, 2nd Division, Toronto. He served five years overseas on the General Staff (Intelligence) in France, Belgium and Italy. He was mentioned seven times in dispatches; was created a D.S.O., C.M.G. and C.B.; Legion of Honor, France, Officer; Order of Leopold, Belgium, Officer; Order of Crown, Italy, Officer; was awarded the Croix de Guerre, Belgium and the Croce di Guerra, Italy, and was made Brigadier-General in October, 1918. His military record in the Great War was outstanding.

In his own profession he became an outstanding authority. While he lived at Niagara Falls, the development of hydro-electric power from the Niagara river came to the fore and his engineering practice gradually developed into specialization in hydraulic and hydro-electric power work. He was retained as consulting Engineer in the design and construction of the power plants in many parts of Canada and was consulting Engineer to the Ontario Power Company, and the Water Power Branch, Department of the Interior, Ottawa, on water power investigations and conservation in Western Canada. He was a member of the International Joint Board of Engineers on the navigation and power problem of the St. Lawrence river, and also a member of the Royal Commission to report on Radial Railways in Ontario.

On his return to Canada from overseas in 1919 he was called by his Alma Mater to be Dean of the Faculty of Applied Science and Engineering, in which position he continued until his retirement in 1941. He was particularly happy in his association with the School of Applied Science on account of the contacts which it afforded him with young men entering the engineering profession. For many years he was very closely associated with the University of Toronto; he was a member of the Senate 1901-13 as an elected representative of the graduates in engineering and he was a member of the Board of Governors from 1913-19.

The Brigadier led a very full life and, as he was always ready and willing to assume responsibility and give of his best, many honors came to him. He served as President of the Engineering Institute of Canada, President of the Ontario Association of Professional Engineers, President of the Toronto Civic Guild, President of the Toronto Chamber Music Society, Vice-President of the Toronto Symphony Orchestra, Vice-President of the Toronto Board of Trade; and all together he was an outstanding citizen of Canada. He closely followed the motto of his father "at your best always" and in all his work he was ably assisted by his good wife, nee Myra E. Stanton of St. Catherines who, since they had no children, alone survives him.

—H.E.S.

SERGEANT-PILOT R. F. LEIGHTON, R.C.A.F.

1916-1941

Sergeant-Pilot Robert Frederick (Fred) Leighton was killed on November 1, 1941 while serving overseas with the Royal Canadian Air Force.

Born in Brandon, Manitoba, on July 1, 1916, he was educated in Victoria and was well known in sports, and Boy Scout circles.

Prior to his enlistment in the R.C.A.F. he was employed in the Geographical Branch of the British Columbia Department of Lands in Victoria where he was extremely popular with his fellow employees and was held in high regard.

Joining the Alpine Club of Canada as a subscribing member in February, 1939, he immediately became an ardent enthusiast and determined to graduate at the first opportunity. The opportunity arose in September, 1939 when, on the week-end of the outbreak of the present hostilities, Mr. Eric Brooks led a combined party of Vancouver and Victoria members on Mount Baker for the purpose of graduating those members who wished to attain active membership but had been unable to attend camp. It is interesting to note that the other two men from Victoria who took part in that climb are also now serving their country with the Royal Canadian Air Force. Fred spoke most enthusiastically of Mount Baker and had hopes of many more climbs after the war.

In the activities of the Vancouver Island section he was one of the hardest and most enthusiastic workers, and was most popular with all who knew him.

He entered into his work and studies in the Air Force with the same energy and enthusiasm that characterized all that he did and he made rapid progress. Leaving Victoria in September, 1940, he won his wings in Calgary in March, 1941 and went overseas in May. He was stationed with a Canadian Bomber squadron of the Coastal Command in the north of Scotland.

The sympathy of all goes out to his parents, Mr. and Mrs. P. R. Leighton, of Duncan, B.C.
—F.G.M.

DONALD FORRESTER

1865-1941

Donald Forrester was born in Belleville, Ontario, and received his primary education there. His parents moved from Ontario to southern Manitoba, settling near Emerson. Forrester completed his education at Manitoba College in Winnipeg, and graduated from the University of Manitoba in Arts in 1891. He was a good student, and received a scholarship in Mental and Moral Science on the completion of his course.

He entered upon the study of law in the same year, being articled to F. H. Phippen, an outstanding attorney, and later a member of the Manitoba Court of Appeal and General Counsel for the Canadian Northern Railway Company and the Bell Telephone Company. Forrester was admitted as an attorney in 1895, and was called to the bar in 1898. He practised in Winnipeg for several years, and bore a high reputation for industry and integrity.

He joined the Alpine Club of Canada in 1908, and attended the Rogers pass camp that summer. He was one of nine who made the ascent of Mount Rogers on the first day of the climb, and was one of fifty-seven to graduate to active membership that year, including several who later rendered outstanding service to the life and work of the club, such as the late A. A. McCoubrey.

He was a congenial companion, a wide reader and a good raconteur, and his presence at any camp must have been a real asset. About 1917 he retired from the practice of law and moved from

Winnipeg to California, which he had visited from time to time previously, and where he resided until his death in November, 1941. In the intervening years he visited Manitoba and his friends there from time to time. The members of the club extend to his widow, his daughter and his two sons, their sincere sympathy in the loss they have sustained.

—D.H.L.

HONORABLE ROBERT RANDOLPH BRUCE

1861-1942

The Hon. Randolph Bruce became a member of the Alpine Club of Canada in 1911, five years after its organization. A keen lover of the Canadian Rocky Mountains and their natural beauties, he was deeply interested in all that pertained to them. He was a hearty supporter of the club and continued his membership until his death. Born near Elgin in Scotland in 1861, he graduated from Glasgow University as a Bachelor of Science and took up civil engineering as a profession. In 1887 he came to Canada and worked on railway construction with the Canadian Pacific Railway for some ten years. He was much interested in mining and later became associated with the development of the Paradise mine near Invermere in the Kootenay district. His enterprising character and ability for organization led to his development of the Columbia river valley in the vicinity of the beautiful Lake Windermere, where he was the founder of the little town of Invermere. There, he built a delightful home by shore at the foot of the lake. Not very long before his death he gave this beautiful place for a hospital.

He became Lieutenant-Governor of British Columbia in 1926 and in 1936 was appointed Canada's Minister to Tokyo. In 1938, owing to poor health, he resigned this appointment and returned to Canada. He died at Montreal in February, 1942, at the fine old age of eighty years.

His professional associations in the mountains with the earlier days of the Canadian Pacific Railway made him well acquainted with western pioneer life and he was hail-fellow-well-met with all. His kindly, genial manner and strength of character marked him as a leader and an authority wherever he went. He was a born raconteur and could entertain for hours with humorous yarns and experiences.

In 1929, with his niece, Miss Helen Mackenzie, His Honor, then Lieutenant-Governor of British Columbia, was a guest at our annual camp, held that year at Rogers pass in the Selkirks. We enjoyed their company greatly, as they were full of go and were tip-top sports. On several occasions around the camp fire, His Honor convulsed his audience with amusing stories of previous days in the mountain wilderness.

The following year, accompanied by another niece, Miss Madge Mackenzie, he was again our guest. The camp, placed at the foot of Maligne lake, was I think one of our best for beauty of surroundings: a long stretch of lake with sparkling sun-kissed wavelets, forests of graceful balsam and spruce along its shores and outstanding snow-clad peaks sending broken, glistening ice-falls close to the water's edge. On the flat at the end of the lake was pitched a city of white tents with gaily flying flags of varying color and design waving from high vantage spots.

The little incident that follows is so truly indicative of His Honor's personality that I cannot refrain from telling it. The camp was catered to by the well-known mountain guide and outfitter, the late Curly Phillips of Jasper, and it was well done. Curly had detailed his very best cook and two helpers for the occasion. Shortly before the arrival of His Honor and Miss Madge Mackenzie,



Hon. R. R. Bruce

I went to the cooks and told them of our coming guests, and hoped they would do it proud for them. One of the helpers, evidently an ardent socialist, spoke up, "What is he better than any other man?" I explained that they were our guests and that the laws of hospitality demanded that we should put up our best for them. Shortly after His Honor arrived I asked him if he would come with me to the kitchen tent and let me introduce the cooks to him. He said, "Sure I will. They are most important gentlemen." He shook hands all round and soon they were telling of mountain recollections and spinning yarns, all grinning most happily. Later, the socialist cook came to me and said, "Gee! That's a real fine man! One of the finest I have ever met! We'll be proud to do our best for him." And they did.

This little incident is typical of the man. The club has lost a true friend and fellow member, and one that those who knew him will always remember most happily, and with gratitude for the great pleasure he gave them.

—A.O.W.

REVIEWS

A Naturalist in Canada

by Dan McCowan, F.Z.S. Pp. xiii, 284. Illustrated, 31 photographs by the author, frontispiece by Carl Rungius and two sketches by Bruce Horsfall.
The MacMillan Company of Canada Ltd., Toronto.

The announcement of a new book by Dan McCowan, the Fabre of the Canadian Rockies, will be welcome news to all his thousands of admirers. It is rare to find a naturalist who is equally at home in the field, with the pen, on the lecture platform and at the microphone. Many a gifted writer is tongue-tied when confronted by an audience, either personal or on the ether, and it is common experience to find that the speaker whose silver tongue so charmed us, has a literary style both stilted and uninteresting.

None of these strictures apply to Mr. McCowan. He writes as he speaks, easily, conversationally and with the right word always in the right place. His interests are not confined, as many suppose, to the plants and animals of the Rockies alone. *A Naturalist in Canada* is exactly what its title implies; a series of essays on wild life which covers the whole Dominion, *a mari usque ad mare*. The writer is an enthusiast, and he succeeds, with effortless ease, in conveying his enthusiasm to others. The present writer, whose knowledge of biology is very limited and who congratulates himself if he correctly identifies a marmot, a paint brush, a whiskey jack and a water willow herb, found himself following the adventures of Mr. McCowan's feathered, furred and flowering friends with consuming interest, and was loath to lay the book aside until he had reached, regretfully, the last page.

It is difficult, amidst so much charm, to single out any portion for special comment. There is a delightful chapter on the ubiquitous pack rat which almost convinces me that this denizen of mountain cabins has been much maligned. After reading Mr. McCowan's description, one is tempted to make a pet of the next pack rat one meets. Or is he playing a deep game? Is he afraid that some member of this gang of four-legged thieves will steal a copy of the book and take revenge for any adverse criticism of its habit?

Browsing through the table of contents, one finds such suggestive titles as "A Handful of Herbs," "The Black Ploughman," "An Outline of Un-natural History," "Pickpockets," "A Tribute to the Trees" and "Good Pickings." In no case does the meat of the pie fail to do justice to the intriguing appearance of the crust. In short, there is not the slightest danger that the reader of this book will find, as Conrad Kain remarked, that "he has learned many, many things that he had always known before."

A word about the illustrations. The title page states that these are "from photographs by the Author." All too often these words are a prelude to a collection of pictures which were hardly worth the price of the cuts; but Mr. McCowan, that man of many parts, is a consummately clever photographer, whose skill is only equalled by his infinite patience—and is not that the equivalent of genius? Not one of the numerous illustrations depicting wild life falls below the standard of "good" and many must be classed as excellent.

In the whole book, there is only one sentence to which exception might be taken; and that is a matter of personal taste. In the chapter on Edible Plants, the author speaks of "a lichen called Rock Tripe, a particularly nauseating food." The reviewer has been eating Rock Tripe whenever the opportunity offered for the past twenty years, and he thinks it is delicious!

—C.G.W.

Bushwalking and Camping; Paddy Palin's Handbook of Australian Bushcraft

Pp. 73 with numerous illustrations from photographs and line drawings.

Paddy Palin, 327 George Street, Sydney, N.S.W., Australia.

Let no Canadian lover of outdoor life despise this little book because it is published in our sister Dominion "down under." The basic principles of camping are the same the world over, whether we make our bed of balsam or of bracken. In either case we have to lie on it! Indeed, Mr. Palin has acknowledged a debt to Canada on the first page of his book, for he quotes a verse from Robert Service:—

"There's a whisper on the night-wind,
There's a star agleam to guide us,
And the wild is calling, calling—let us go."

Mr. Palin is in the Camper's Supply business in Sydney, and the book concludes with a very interesting catalogue of "Paddymade Camp Gear for Walkers," but the author was a camper long before he commercialized his hobby and he went into business to fill a need for rucksacks, sleeping bags and light tents of high quality.

Mr. Palin's advice to hikers is eminently practical. The numerous (and often humorous) little sketches add greatly to the attractiveness of the book. There are chapters on Getting Ready, On the Track, The Camera in Walking, Canoeing, Ski Touring. The last named chapter was a revelation to the present writer. The terrors of a blizzard "often lasting for days" present a rather unfamiliar aspect of what we have been accustomed to regard as the California of the South Seas. Reading Mr. Palin's description, one wonders what the Aussie airmen find to complain about in a Canadian winter!

Mr. Palin rightly lays great stress on safety and comfort for the hiker, and he also emphasizes the duty which the camper owes to Nature. He quotes from H. Kephart:—"Your thoroughbred camper—It is not the possession of the land, but the landscape he enjoys, and as for that, all the wild parts of the earth are his by a title that carries with it no obligation, but that he shall not desecrate or lay them waste."

In short, this little book is what the authors of "1066 and all that" describe as "A Good Thing," and equally valuable whether your camp menu includes flap jack, bacon and moose steak, or such dainties as "Crepe Rubbers," "Puffaloons," Cabbage Palm, White Grubs or Iguana, all of which seem to spur the jaded appetites of Australian Hikers.

—C.G.W.

High Conquest (The Story of Mountaineering)

by J. R. Ullman, pp. 334, 25 pages of illustrations, maps, sketches and index.

J. P. Lippincott and Company, New York and Philadelphia, 1941.

It is stated in the Foreword that this book is written more especially for American readers to tell the story of mountaineering in a popular form. From this point of view it ought to make a strong appeal to those, whether mountaineers or not, who are attracted by the adventurous struggles of man against the impersonal forces of nature. With much wealth of information, and with a lively style, Mr. Ullman, beginning with the days when men looked at the mountains with a superstitious fear, guides the reader through the main aspects of the pageant of mountaineering

history; describes pioneer ascents in Switzerland, with some attendant disasters; famous climbs in the Andes and Rockies, in Africa and Alaska, and the great expeditions of the last fifteen years to the Himalayas, with their successes and costly failures.

After dealing very briefly with the question, "Why do men climb mountains?" the author describes the birth of the sport and its "coming of age." Three periods in its development are distinguished: the first in which mountaineering was all done with guides; then a period associated, at least in the English-speaking world with A. F. Mummery and some of his contemporaries, in which guideless climbing was initiated on a considerable scale; and lastly a period dating from the first world war in which the mechanization of the sport and its exercise in the interests of a tub-thumping nationalism have been carried to an extreme, (pp. 71-94). The acrobats and steeple-jacks of mountaineering have hardly regarded any climb as worthwhile, unless it involved intricate equipment and unusual danger, of which a notorious instance is given on pp. 81-84. Mr. Ullman quotes one of them who has written: "The cult of mountaineering, passionately pursued and spreading more and more among our young men, will contribute to the military preparedness of the young generation." The unparalleled disasters of 1934 and 1937 on Nanga Parbat were largely due, as he says to this spirit. "The Germans were engaged in all-or-nothing assaults. They were after victory, and nothing else mattered . . . *collectively* they met the fate that they deserved." (p. 199). This is a hard saying, but not without ground. British parties on Everest and the American party on the first expedition to K2 have afforded better examples of the sporting attitude. The author expresses the hope that on the return of peace, "the faith-and-friction school of storm-troopers may disappear," and leave the mountains to those who love them and turn to them as places for free and disinterested amusement, and of escape from the confines of a stereotyped existence.

Part II of the book opens with "The Great One" or "The Story of Mount McKinley," which shows that success does not always attend the efforts of the more skilled and assiduous. There follows a chapter entitled "Snowpeaks and Firepeaks," describing expeditions in the Andes. "Ice on the Equator" refers to mountaineering in Africa. "The Highest Yet" describes successful ascents in the Himalayas; "Eight Thousanders," the attacks on the higher peaks, culminating in the "Fight for Everest," in which seven expeditions have been defeated. Some factors and problems in connection with the struggle to reach the summit of the globe are briefly summed up on pp. 243-245.

Chapter XI, with which Part III commences, is concerned with "Mountains and Mountaineering in North America," and traverses a long field from Alaska and the Yukon to Mexico. Logically, the ascent of Mt. McKinley should find its place here. The author sees the probable future of American mountaineering in widely separated parts of the world: in Alaska and the Himalayas.

"The Craft of Mountaineering" or "Ax, Rope and Trouser-seat" is the title of a chapter which contains helpful hints and sound advice for the inexperienced. The chief dangers of the sport are mentioned, danger and difficulty are distinguished, and in discussing rock-climbing, attention is called to the importance of rhythmic movement, and the use of the rope, in regard to which Canadian, if not American climbers, have inclined to carelessness or indifference. On difficult rock-climbs and on crossing glaciers, on which one of the commonest dangers is provided by concealed crevasses, an extra rope may be not only helpful but, under certain circumstances, absolutely necessary.

The reviewer finds the general attitude of the author towards mountaineering sympathetic. The last pages of the book close on a note sounded eloquently by Frederick Harrison many years

ago, that we need to go to the mountains to obtain “great draughts of simplicity and beauty,” to have “poetry not droned into our ears, but flashed into our senses;” surely never more necessary than today in a world darkened by strife, hatred and cruelty.

Of the four appendices, the second presents a useful list of 100 famous mountains, with their locations, altitudes and the dates of first ascents; not the 100 highest, for the altitudes range from that of Everest down to Vesuvius, but mountains, “which are either important in their own right or have played a significant part in the history of mountaineering.” Appendix III contains a short glossary of mountaineering terms, and the last an extensive list of books in English, either originally or through translation.

A few inaccuracies have been noticed: e.g. A. H. McCarthy is an American, not a Canadian (p. 255). Aschenbrenner and Schneider did not perform the feat of making Camp IV with three porters from the highest camp, in one day, on the 1934 Nanga Parbat expedition (p. 196): the Germans unroped from the porters and left them behind, with fatal results for the latter.

The pictures of rock-climbing are well reproduced; those of the Mustagh Tower, the Matterhorn, Kangchenjunga, Nanga Parbat, the White Death and Giant’s Causeway, are particularly impressive.

—J.W.A.H.

Mountaineering

by J. A. H. Peacocke, pp. 213, with 13 illustrations and 16 line drawings, and index.
A. & C. Black, London, 1941. Price 6/-

This book is what the publishers claim for it, “a concise, but very comprehensive introduction to climbing on rock, ice and snow;” but it will, we think, be of more value to novices than to experienced mountaineers. Although it is concerned with relating British rock-climbing to mountaineering generally and in particular to mountaineering in Switzerland, yet there is much in it from which young Canadian climbers can profit, more especially in regard to the importance of the compass, the barometer, the right use of the rope and of the newer mechanical devices for safety. There is no attempt at a literary polish: the style is conversational, and at times, that of a guide-book.

The chapters on rock climbing, on snow and ice technique, composition of the party and on weather appear to be the best. The one on dangers of mountaineering is too brief; it is oversimplified and needs to be supplemented by other sources. Was the celebrated Matterhorn accident of 1865 the result of a careless handling of the rope; or was the order in which the climbers were roped a more important contributory cause? (p. 52). In cutting up an ice-slope, Mr. Peacocke supports the method of direct assault as against the traditional zigzag technique. In cutting steps downwards, the importance of moving the inside foot down first is emphasized: in the drawing on p. 93 this appears to involve an awkward position.

In the discussion of food for climbers, the author is both scientific and practical in regard to calories, food-values and vitamins. All mountaineers know what an important part soup plays in the evening meal, and on p. 192, a wonderful soup is described. There is a very valuable table of comparative food values given on p. 204: more helpful for longer expeditions when larger quantities have to be carried, than for climbs made from huts or hotel centres. The glossary in which the definition of scree is given as “small stones similar to shale,” is not very important.

As might be expected in a book by an active mountaineer, all the latest practices and equipment are mentioned, such as, rope-sling and *Karabiner* belays and rappels, *souliers*

Vibram, special method of roping down over bergschrunds, and Prusik and other knot devices for escaping from crevasses (pp. 112-120). "Pomade Sechee" is recommended as the best protection against sunburn, because (?) "it is colored pink and so absorbs the ultra-violet rays which do the damage."

The illustrations, most of which are pictures of rock climbing, are all interesting, that of "delicate climbing on Tryfan, North Wales," which forms the frontispiece, being outstanding. This book, which brings out all the essentials of mountaineering, can be recommended to young (in the sense of inexperienced) English-speaking climbers. The author acknowledges his debt to *Mountain Craft* edited by G. W. Young; but most of his material has been supplied by his own experiences. Chapters I and V of that monumental work would form an excellent supplement to Mr. Peacocke's book.

—J.W.A.H.

The Mountain Vision

by F. S. Smythe, pp. xi+308, with 16 illustrations.
Hodder and Stoughton, London, Eng., 1941. Price 187-

This personal interpretation of the message of the high hills by an outstanding mountaineer and one of the leading writers of the day on the varieties and aspects of the sport, brings the reader into touch with a very considerable range of experiences. It is a stimulating contribution to the psychology, less so to the philosophy of mountaineering, if there is any. In some respects provocative, it is so full of "meat" that in the space allotted to this review an adequate account of its contents cannot be attempted; nor can the controversial points that it raises be satisfactorily discussed.

"I count myself fortunate," writes Mr. Smythe, "to have trodden the heights of the Alps and the Himalayas, to have sat with friends by camp-fires, to have gasped in the thin air near the top of Mount Everest, to have tramped the heather of the British hills. And more than this, I am happy in the memories of these things. Such visions, such memories are imperishable." On a high mountain on a lovely day when one is not too rushed or fatigued, one may sense the connection and, even harmony, of things, although this may be only an illusory thrill.

The appreciation of beauty in Nature, and the enjoyment of mountain scenery developed slowly. It required a certain freedom of mind, which results from the spread of science and education. Discussing in Chapters V, VI, and VII, the best viewpoint for the appreciation of scenery, Mr. Smythe inclines to uphold the claims of what he terms the "Middle View." Of course there are mountaineers who have no appreciation of beauty. Mountaineering carried to excess, a kind of oromania, tends to blunt rather than sharpen the appreciation of mountain scenery. "Hard exercise and the contemplative faculties are," observes the writer, "sometimes uneasy bedfellows." "For youth, mountaineering is a sport in which the competitive element predominates." There is naturally a strong desire to do the most difficult things, to succeed where others have failed. The number of "scalps" and the rapidity with which the climbs can be made are all important. But the utterance, "I will lift up mine eyes unto the hills whence cometh my help" is not incompatible with the most technical and exacting of rock climbs. The author now gives a very simple answer to the question: "Why do you climb?" namely: "because I like it;" which reminds me of Mallory's simple, but somewhat different, answer to the question, why he attempted Everest: "because it is there."

Mr. Smythe finds most modern mountaineering literature "appallingly dull," because it lacks description of the mental reactions of the climber. What it needs, indeed what mountaineering

needs, according to him, is a romantic revival. In former writings he has supplied this element, and makes a further contribution in this line throughout this volume, notably in Chapters V, XIII, XV, and XVI. A mystical tendency pervades these pages; at times the writing borders on the rhapsodical. Even in the Himalayas, with their biting winds, overwhelming cold, "flesh-shrivelling suns" and death-dealing avalanches, he senses a serene arid beneficent order, in which there is a perpetual harmony. Man sees himself as part of a benevolent and loving scheme! What can be said against such a faith? The fascinating chapters on Everest and on Solitary Climbs, contain more philosophizing of a subjective character. "Happiness and peace," we are told, "are not products of the intellect; they spring from deeper sources." Intellect alone may not be sufficient, but there is a vast difference between the happiness of a Mummery and a pig. Excellent and entertaining are the chapters on "Rock Climbing" and "Snow and Ice;" and the descriptive writing in the chapters on the Himalayas and Everest is not easily surpassed.

"Fear plays its part in determining man's feelings toward mountains." In dealing with this phenomenon, the author asks the question, "To what extent are mystical feelings toward mountains induced by ancient and inherited fears, and to what extent by a recognition of a Divine Power of which mountains are symbolic?" He inclines to the view that the latter is the prime cause of mountain mysticism. That neither may have an influence is not considered, and his treatment of the question seems to be rather superficial.

Two kinds of mountain fear are to be distinguished (p. 241) of which only one is to-day a non-eliminable factor in the sport. Recognition of danger and fear are not identical, though related sometimes as cause and effect. Danger irrationally incurred may produce fear, as may unforeseen circumstances such as a sudden change of weather. A severe electric storm in a high mountain can be terrifying.

Recent years have seen "heroics" in mountaineering encouraged by nationalistic philosophies (?) out of keeping with sound principles. "In mountaineering heroics begin when fear begins, and both begin only when the bounds of prudence, skill and good judgment are overstepped." (p. 242). One can however experience fear without indulging in heroics. The belief that Himalayan climbing is necessarily more productive of fear than is climbing in Switzerland is disputed by Mr. Smythe who declares, "I have known fear far more often in the Alps than on Everest," and that it was only on Kangchenjunga in 1930 "I experienced fears destructive of all pleasure." There were good reasons for this, in the enormous risks taken by the German party.

When danger is deliberately and continually incurred, it is, as the author observes, destructive of the finer experiences of mountaineering. It acts like a drug which tends to deaden appreciation of the sport. Many will agree with him in holding that the charm of mountaineering lies not in the climbing or success exclusively, "but in the great range of emotions provoked through these physical experiences."

The last fifty pages of this suggestive and, in parts, brilliant book, with its beautiful illustrations, include delightful chapters on "The Stream," "The Crag," "The Beauty of Flowers," "Birdsong" and "Clouds."

— J.W.A.H.

The Night Climbers of Cambridge,

by 'Whipplesnaith.' Pp. xii and 183, with 74 illustrations.

Chatto and Windus, London, 1937. The Macmillan Company of Canada, Toronto.

It has long been known that certain English colleges have provided for a handful of opportunists facilities for a special kind of extra-mural activity. The present book reveals to the reader the nature and scope of these little-publicized evening classes which, far from leading to a degree, have sometimes had an exactly opposite effect.

The author describes with great zest and with the aid of numerous remarkable action photographs the scenes, routes and special features of a great many climbs on the night-shrouded surfaces of large buildings. He carefully avoids the suggestion that the pastime is directly related to the sport of mountaineering (many mountaineers who have the opportunity do not indulge) or, indeed, that it is related to anything in particular. His book is merely a guide to fun of a particular and limited kind. From this standpoint it may be read with pleasure and amusement. It is quite evident that the game demands both nerve and technique but Whipplesnaith insists that there is an almost complete absence of dangerous rivalry, since climbs are necessarily made in secret and parties seldom meet or record their adventures. The fascination does not lie wholly in the climb, but also in the outwitting of a slightly anachronistic authority and in the charm of great buildings by night. Certainly the practice of this kind of climbing must result in a peculiar appreciation of the outward details of these edifices. The reviewer, who is lamentably ignorant of architecture, was led to wonder at times how the extraordinary juxtaposition of surfaces and peculiarities of recess and protuberance which are described in these chapters ever manage to become incorporated in buildings, fair or otherwise.

Many hints on technique, clothing and procedure are forthcoming and the tale abounds with the incidents and escapades dear to the undergraduate heart. The writing of this well-produced book and the securing of the unique illustrations must have entailed an expenditure of trouble and patience far exceeding the requirements for the mere practice and enjoyment of night climbing.

—F.N.

ALPINE NOTES

A Moberly Episode, 1866

Walter Moberly, greatest explorer in connection with building of the Canadian Pacific Railway, claimed in his declining years that his assistant Albert Perry (properly Alfred Perry) "was the first white man to traverse" Rogers pass (p. 6, *Early History of C.P.R. Road*, a pamphlet, published in Vancouver about 1908, in Vancouver Public Library).

Arthur O. Wheeler's *Selkirk Range*, 1895, antedates such claims, but Howard Palmer's *Explorations and Mountaineering in the Selkirks*, quotes—possibly accepts—a similar contention (p. 28). Moberly's biographer Noel Robinson, in *Blazing the Trail Through the Rockies*, quotes Moberly (p. 74), "I had not been through [Rogers pass] but formed my opinion about it from Perry's report made to me in 1866."

What did Perry "the Mountaineer" report? These books alike omit this information although vital to support Moberly's belated claims as presented by two of them.

Here are all relevant entries in Moberly's 1866 journal:—

“Tuesday, June 12th. Met Perry, who had been employed forwarding supplies to Howell’s camp. Instructed him to get ready to explore the easterly branch of the Ille-cille-waut River. Purchased a canoe for him at Steamboat Landing. Sent two men to bring supplies from Depot camp for this trip.

“Wednesday, June 13th. . . The two men sent to Layton’s camp for supplies for Perry arrived in the afternoon. Engaged Merrimen to accompany Perry, and started them off for Ille-cille-waut River.

“Friday, July 13th. Rained hard most of the day. Perry returned from his trip up the east fork of the Ille-cille-waut River. He did not reach the divide, but reported a low wide valley as far as he went. His exploration has not settled the point whether it would be possible to get through the mountains by this valley, but I fear not. He ought to have gone on to the divide, and his failure is a great disappointment to me. He reports a most difficult country to travel through, owing to fallen timber and underbrush of a very thick growth. . . (*Columbia River Explorations*, 1866, Archives of British Columbia).

Moberly wrote on July 14 to Hon. Joseph E. Trutch, Chief Commissioner of Lands and Works,

“Perry returned yesterday . . . and judging from what he reports, I think it is very likely a good pass through that Valley can be got for a road. Had I not received your letter instructing me to discontinue the Explorations for the present . . . I should have proceeded at once to examine the above valley and the Country from its source to the Columbia River in order to settle definitely if it is a good line_ for a road thro’ out or not, but as it would take from six to eight weeks to make the trip I thought it better to await further instructions before going on with it. I enclose Perry’s sketch of the Valley up which he went.” (Marginal note in pencil, “not received.”) (MS., Archives of British Columbia.)

Historically, the map is a great loss. It might have shown how close to the summit Perry got.

Major Rogers, who sighted the summit 15 years later, does not seem to have been ungenerous in recognition of Moberly’s important pioneering, and Moberly in 1884 closed his book, *Rocks and Rivers of British Columbia*, with praise for Rogers. Later in life Moberly condemned use of Rogers and Kicking Horse passes by the railway.

—W.A.D.M.

Hamilton Lake

Members may be interested to know that the trail from Emerald lake to Hamilton Falls has recently been extended to Hamilton lake. Hamilton Falls were discovered shortly before the end of the last century by C. E. (Roxy) Hamilton, the oldest pioneer in Yoho Park, now living in Field, B.C. While prospecting up the creek which now bears his name, he was the first white man to see the falls.

Hamilton lake was discovered in 1936 by “Pat” Langford, son of the former Supervising Warden of Yoho Park, and now Flight-Lieutenant in the R.C.A.F. The new trail to the lake gives access to an area of scenic value well worth a visit by mountaineers, especially those interested in photography.

CLUB PROCEEDINGS AND CLUB NEWS

THE EASTER SKI CAMP, 1942

The annual Easter ski camps that have been held so successfully in the Little Yoho since the building of the Stanley Mitchell hut are due mainly to the untiring efforts of one man—A. A. McCoubrey. By his excellent organization and management of these camps Mac had become such an essential part of them that his sudden death a few weeks before the opening of the 1942 camp made it uncertain for some weeks whether it would be held. Those of us who had known Mac well felt that a special effort should be made to carry on his good work, so it was welcome news when the decision was made to hold the camp as usual at the Stanley Mitchell hut from April 4 to 12.

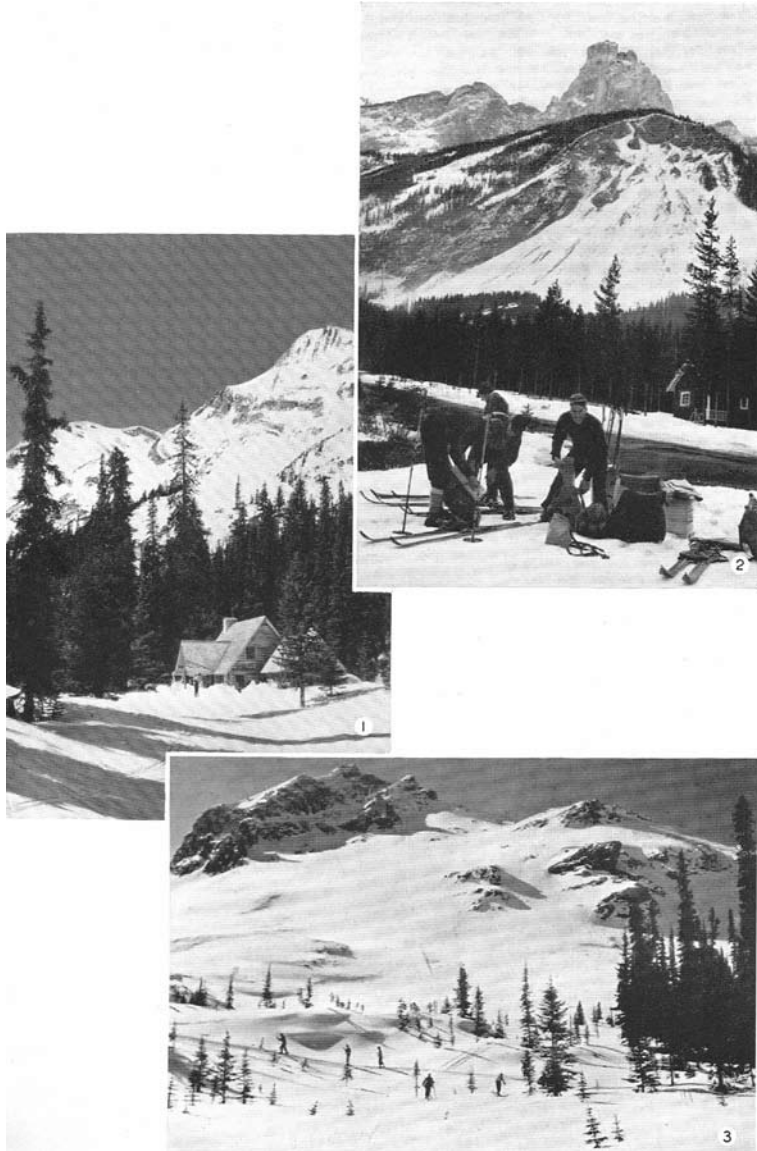
A preliminary party of five left Field on April 1 to carry in some of the perishable supplies, such as bread, meat and (most perishable of all) eggs. As packs felt heavy to those of us just out from office work, and the snow was soft, the trip was made in two days. The weather was surprisingly mild and rain fell fairly heavily the evening we were at the Yoho camp. From Laughing Falls the new short route was followed. This consists of a steep climb up the heavily wooded slope immediately to the north of the falls. The trail from Twin Falls to the Little Yoho is reached at the point where it skirts the last bluffs, and is followed to the Stanley Mitchell hut. This route is very direct, and though steep, it saves the long trek around by Twin Falls creek, and must cut an appreciable amount of time off the trip. It was used by all parties going to this camp.

The day after reaching the hut Ken Jones and I returned to Field to meet the main party and to pack in the rest of the supplies. The going was very difficult, and even Ken admitted, (if “admitted” can be used to describe such forceful language) that he had seldom seen it worse. Miles of breakable crust were followed by deep wet snow into which we sank, sometimes up to the hips. We struggled along, anxious to reach Field before the stores closed so that we could collect our supplies and get away early next morning. When we did finally reach Field, after a helpful lift in the warden’s truck, we were much chagrined to be reminded that it was Good Friday and all the stores closed!

After rousing a sleepy butcher on Saturday morning the party of nine got away from Field soon after nine o’clock. The night had been much colder and the snow well frozen. Four of the party made the trip through to the Stanley Mitchell hut that day, the others arriving in camp early the following afternoon.

Snow conditions in the Yoho district were not at their best, and on this account ski-ing on the higher peaks and passes was somewhat curtailed. The winter snowfall had been light, and continual cold weather had prevented it from settling. In addition, a fall of a foot or more late in the winter was lying on a frost seam, making avalanche conditions bad and necessitating extreme caution on open slopes. At the higher elevations toward President and Emerald passes much hard wind slab was encountered. However, under the expert guidance of Ken Jones, the dangerous places were avoided. Excellent weather during the camp period did much to make up for the unsatisfactory snow conditions.

While high and ambitious climbing was not attempted, the country around the hut was quite well covered by shorter excursions. Trips were made a considerable part of the way up President and Emerald glaciers and to the top of Kiwetinok pass. One of the longer expeditions was a climb to the ridge below Isolated Peak. From here one looks down into Waterfall valley, and as the eyes of the party swept over its wide expanses of undulating snow rising to a semi-circle of peaks, many of which can be climbed to the summit on skis, exclamations on its ski-ing possibilities were forth-



1. Stanley Mitchell Hut *Photo R. Neave*

2. Making Up Packs At the Highway *Photo R. Neave*

3. At Timber Line Below the Vice-President *Photo R. Neave*

coming. To the writer it brought back memories of his previous ski-ing trip into the upper Yoho, ten years ago, when, in company with Mac, Ferris Neave and Cam Secord, Waterfall valley and the Little Yoho were first explored on skis.

The practice slopes below President glacier were used so much that by the end of camp they were hard and icy, but much improvement was noted in turns. Several of the party got a thrill out of wood-running on the slopes across the stream from the hut, where powder snow was more plentiful than in the open.

The hard-working member of the party was Ken Jones in his triple _ capacity of cook, guide and instructor. However, he seemed to thrive on it and after a morning or afternoon of ski-ing he would dash back to the hut ahead of us and have the meal practically on the table by the time the rest of us arrived. His life was only in danger once, and that was at the end of camp when the first members to leave were strapping on their skis. Ken produced a mouth organ which he proceeded to play. He was practically slain on the spot.

All good things come to an end too soon, and, with a long trip back to eastern Canada ahead, the writer's party was the first to leave camp. At the top of the high trail we stopped to wave goodbye and to take a last look at the snowy peaks shining in the late afternoon sun. Snow plumes were trailing from the tips of the higher peaks, but below, the air was still. Complete peace and beauty reigned. We turned with regret and started the long run down—down into a mad and crazy, war-torn world from which we had escaped for one brief week.

—R.N

“ARTHUR O. WHEELER CAMP”

Glacier, B.C.

July 20 to August 3, 1941

The Thirty-sixth annual camp, known as the “Arthur O. Wheeler Camp” as a token of regard for our Honorary President who, as Founder, President and Director of the Club, contributed so richly to it- advancement and welfare, was held on the old C.P.R. Hotel site at Glacier, B.C., thanks to the kindness of the C.P.R. officials. This is the same location as the “Sir Donald Camp” of 1932.

Favored on the whole with fine weather many climbs and varied excursions were possible. Due to Mr. Butterworth being available and thanks to his knowledge, several parties visited Cougar valley and enjoyed the beauties of Nakimu caves and some, more strenuously inclined, travelled Baloo pass trail.

A fly camp was established at the Hermit hut—now unfortunately in very poor condition and apparently none too safe—for climbs of Mts. Tupper and Rogers. The former a very popular one judging by the numbers there and the latter the graduation climb.

From the main camp climbs were made of Mts. Avalanche, Uto (traverse), Eagle, Sir Donald, Terminal, Lookout, Castor and Pollux while one party attempted Cheops in a long day. The Logan tents were again in use this time for a variation of the Mt. Sir Donald climb for those unable to make the ridge from main camp.

Other expeditions were made to Marion lake, Mt. Abbot, the Asulkan and Illecillewaet glaciers—both still retreating fast—Greens Peak and Perley Rock.

The Swiss Guides, kindly loaned us by the Canadian Pacific Railway, were our old friend Ernest Feuz and Bruno Engler, a newcomer whom we welcome to our Camps and hope to see more of in the future.

Thanks to Charlie Hopkins, with his very efficient truck, his willingness to help out at all times and his keen sense of punctuality and to Ralph Rink, with his usual efficient staff, the matter of transportation, both members and baggage, and the commissariat presented no difficulties.

The camp fire programmes were organized by Mr. C. G. Wates, assisted by Mr. A. S. Sibbald and Mr. S. R. Vallance. We were very glad to welcome Mr. A. O. Wheeler who spoke of the early days in the Selkirks and read some amusing anecdotes of the late Conrad Kain; Mr. G. M. Weed, who in his talks went back to the Illecillewaet of 1898; Dr. J. M. Thorington, with an interesting account of "The Canadian ranges." Other speakers were Prof. S. H. Bush, from whom we hope to hear more on other occasions, Mr. W. Reader, Mrs. Pilley Richards, Mr. Kingman, Miss E. Piggot and others.

The members and guests were invited by the Glacier Branch of the Red Cross Society to a bazaar in aid of the local funds and Mr. A. O. Wheeler donated an ice-axe given his wife in the early days by the late J. D. Patterson. This was raffled off in aid of the local Red Cross and the lucky winner, Mr. F. H. Brigden, kindly presented it to the Clubhouse.

The following passed the test for Active membership:

Lookout Peak:

July 23—Dr. Ruth Dow, Mrs. E. Fisher, T. Marston.

July 31—Miss J. Pearce.

Mt. Rogers:

July 24—Miss E. Van Engel and Miss K. Harris.

ANNUAL CAMP VISITORS

Visitors were drawn from:

CANADA

British Columbia—Armstrong, Capilano, Duncan, Sidney, Vancouver, Victoria.

Alberta—Banff, Bellevue, Calgary, Edmonton, Mulhurst.

Saskatchewan—Regina, Saskatoon, Shaunavon.

Manitoba—Carberry, Winnipeg.

Ontario—Toronto.

Quebec—Montreal.

UNITED STATES

California—Los Angeles.

District of Columbia—Washington.

Illinois—Highland Park.

Iowa—Iowa City.

Maine—Bangor.

Massachusetts—Cambridge, Concord.

Michigan—Port Huron.

Minnesota—Minneapolis.

New York—Ithaca, New York City.

Ohio—Cleveland.

Oregon—Portland.

Pennsylvania—Ardmore, Bryn Mawr, Conshohocken, Philadelphia.

Wisconsin—Milwaukee, Wauwatosa.

Altogether one hundred and twenty-four (with crew) were placed under canvas, representatives attending from The Alpine Club and The Ladies' Alpine Club of England, The American, French, Swiss and Mexican Alpine Clubs; the Royal Geographical Society, The Appalachian Mountain Club, The B.C. Mountaineering Club, The Climbers Club of Great Britain; The Dolomite Club, The Green Mountain Club and the Pinnacle Club.

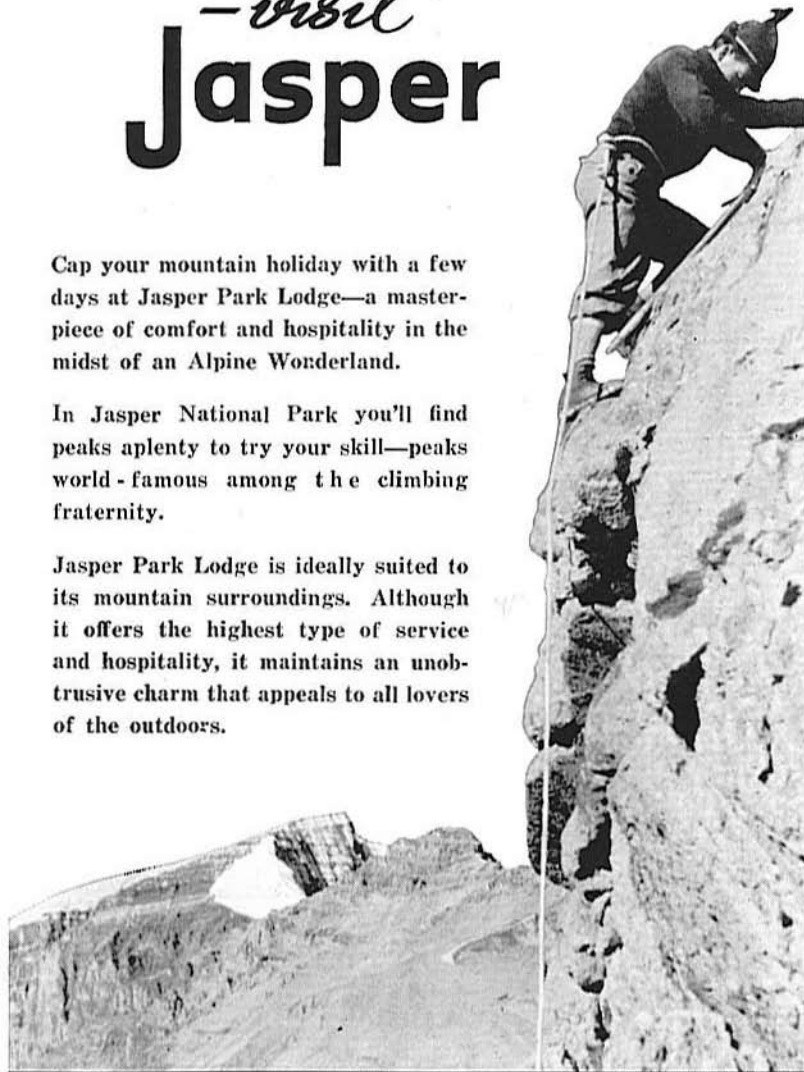
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Rate is \$20 for the four days, which includes transport of duffle, if required, between Banff and Sunshine Lodge.

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