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Articles for the Journal should be sent to the Editor, A. A. McCoubrey, Engineering Dept., Canadian Pacific Railway, Winnipeg, Man. Contributors are reminded that material for publication should be in the hands of the Editor at as early a date as possible, and **NOT LATER** than November 15, of each year.

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On The Athabasca Glacier. Photo S.R. Vallance

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THE GROOVED ARÊTE

A SWAN SONG

By Lavinius

To every climber comes, sooner or later, the inevitable "swan song" of farewell to the rocks. In the writer's case this event matured distinctly 'later,' the vocal performance having been postponed, most benevolently, until within three months of his 73rd birthday.

Having just returned from two months mountain walking and swimming in Italy, but with no climb for six months, an invitation to come up to North Wales and "do a few moderates" was gleefully accepted. The morning following upon his arrival there a couple of cars decanted six climbers—four of them youngsters—outside the cottage from which many expeditions have started during the past twenty years.

"We thought of doing "The Grooved Arête," if that's all right with you," said P., our leader, which didn't sound exactly like a moderate climb, but suddenly sensing that the expedition had been arranged for the writer's special entertainment and feeling full of beans and cheery optimism, he replied promptly:

"Suits me top hole!—I did it twenty-one years ago and can probably manage it again."

From which it would appear that the air of North Wales must possess some peculiar quality of physical uplift which was responsible for that vainglorious answer. During the ensuing five hours, when feeling at times like a well-masticated piece of chewing gum, the thought of that answer was responsible for clothing oneself in a moral raiment of sackcloth and ashes. For the Grooved Arête, to one who has passed the Rubicon of youth, is a classic climb and one not to be treated with such arrogant flippancy.

It is situate upon a mountain called Tryfan (Trivvan) in the Snowdonia district and consists of about 800 feet of difficult climbing. It was undiscovered at the time Mr. George Abrahams published his list of 93 Welsh Climbs, graded in alleged order of difficulty, but at the time of its discovery it was generally accepted among climbers that its correct place in that list would be wedged in somewhere in the early eighties. It starts above 2000 feet up the steep face of the mountain and when one arrived at its foot as the "also ran" of the party the latter were engaged in lunching and were thus able later to park their sacks at the foot of the climb. Not feeling keen on lunch just then, the writer, already top weight, foolishly set himself a further weight for age handicap by the added burden of a rucksack during the climb. But, Deo gratias, for the restraint which declined several kindly offers to relieve him of it.

The party divided up into three ropes, P. leading, deponent second and S. third man on the leading rope (the latter a man of 66 who still leads moderate climbs) the second rope led by Miss M. and the third by a genial Irishman.

Gazing up at the first pitch while lunch was proceeding one's optimism commenced a rapid descent towards zero, although with no suspicion of the extension of that temperature to the

pedal extremities. But after our star turn had romped up the pitch in fine style, the second man was able to join him with some little return of confidence. For as is so often the case things are not always what they seem to be when viewed from below. Pitch succeeded pitch with ever increasing difficulty, many of them being divided by short walks up grass ledges. Upon many pitches the writer was justly accusing himself of holding up the party by an abnormal slowness in conquering the many problems. Always an irritating experience for those following behind (don't blush, ye too deliberate golfers). In view of time, however, and at one's own request, the leader allowed the two following ropes to pass through. Many times, at the frequent difficult places, the next move seemed impossible and one was sorely tempted to ask for a pull up on the rope. An indignity always rigidly suppressed. As, however, it is a well known axiom of the climber that there is always a way down a mountain, so on the same principle it may be argued that there is always a way up a pitch that another man has done just before you, if one only sticks at it long enough. And that is what happened, even if one sometimes reached the leader puffing like a broken-winded mustang.

The "Groove" which gives the name to the climb is a long steep scoop with very inadequate holds. When commencing this pitch the leader confided to his second, "Your start is round that corner, but as it is a bit exposed for the leader, he usually goes straight up."

But by another of those visual deceptions "straight up" looked so easy that the second man also attacked it with zest and confidence only to retreat with ignominy and worry round the equally difficult corner on to a delightfully exposed wall. About two-thirds up the groove there is a wide step across to the left after which the pitch becomes slightly less difficult.

The slab pitch above the groove is less difficult than sensational. It covers an area of about 400 square feet with small holds and slopes off to the right at an angle of, say,—thirty degrees. It is a traverse across rather than an ascent up, although partaking of the character of both. To slide off it would mean a dive of several hundred feet into space. A cubby hole at the top of the slope on the left enables the leader to jamb himself in to hold the second man and where also the latter can belay both his leader and third man. And that is how it was done in 1917. But on the occasion under notice an excellent method for a larger party was adopted. At the foot of the pitch the three ropes were joined up, the leader changing his position to last man. Thus all the party, other than leader and last man could be held from both ends of the rope without any use of the cubby hole.

There are eight or ten pitches to the climb and it is not denied that towards the end one was feeling the strain, although enjoying intensely every moment of it. The difficulties one experienced may have been partly due to the fact that upon an obvious rubber-shoe climb, one was guilty of climbing in tricounied boots, minus several nails. A bad workman of course always complains of his tools, but really, this rucksack-cum-boots handicap may have been partly responsible for the contretemps which occurred on the final pitch when the writer, attacking a mild overhang came off on to the rope. A swing outwards and a heavy bump on the hip as the pendulum came back on its return swing, compelled a descent of the pitch, where, after some difficulty in getting out of the middle man noose, a somewhat irritable message ascended to the effect that the writer had 'jibbed' the pitch as he was hungry! A humiliating experience.

When the descending party intruded upon this savage attack on a deferred lunch at 3 p.m., the leader, with a tactful grasp of the situation, exclaimed—

"Congratulations. You have done the climb—that last pitch is supplementary and not a part of the Grooved Arête and you were never once on the rope barring that last pitch."

All of which tended to soothe one's wounded vanity, to say nothing of a painfully wounded os inominatum, the stiffening up of which was prevented by a fast scramble down the easy north

ridge of the mountain to a joyous tea for the party at Tyn y coed hotel. Upon such occasions one can be fairly safe in gambling upon a climbing party scoring points off that mythical American lady who "can always worry down a thirteenth cup." As a double traverse was made to the kitchen for more tea, that six to four on chance would seem to have duly materialised.

The climbing on the Grooved Arête is a type of what was considered in the old days as the "exceptionally severe," but it must be frankly stated that to apply that description to it to-day would be almost amusing to the modern generation of rock climbers. Rock faces, which in those early days were generally admitted to be impossible, are now ascended with comparative ease by all and sundry. The recent advance in rock technique has been astounding, for while, twenty years ago, there were perhaps not more than two or three women capable of leading the Grooved Arête, to-day they can probably be numbered by scores. *Tempora mutanda*, for the possibilities of defeating gravitation seemed to us to have reached their absolute apex in the old days. Those delightful days, by the way, when gold-necked bottles accompanied the party, although the more Spartan regime of the Little Yoho Camp of 1927 arouses equally charming memories. Incidentally, for example, the bacon and eggs at breakfast served in the same tin as the earlier porridge course and nicely plastered with the remains of the latter, but yet consumed with an appetite and gusto not possible at the luxurious table d'hote breakfast at Banff Springs Hotel. But a truce to reminiscences.

The above suggestion of a vastly increased rock technique leads on to some interesting excogitation upon what may perhaps be described as the 'politics' of mountaineering. For rock climbing is not the whole story of the latter, but merely an essential part of it. It may therefore be enlightening to attempt to discover what is the nature of that essentiality in relation to the evolution of the compleat mountaineer. Bearing in mind Ruskin's old "greasy pole" dictum, the old members of the Vatican of mountaineering may have been influenced by that dictum to dissociate themselves, in some degree, from rock climbing, per se and to disseminate the theory that within the technicalities of ice and snow was contained the only true faith of mountaineering. A very natural attitude from their point of view, since their qualification for membership of that Vatican was determined—not by ability in rock climbing—but by the ascent of a number of peaks of a certain altitude accomplished during a number of seasons in the Alps. These expeditions, with minute exceptions, were all undertaken under the care and instruction of professional guides, when, owing to consideration of time, the line of least resistance was invariably accepted and, other than upon isolated occasions, all difficult rock climbing had necessarily to be avoided. Apart from such men as Whymper and Mummery and later, Dr. Longstaff, Mallory, Odell and a few others, the great majority of the old brigade of the Alpine Club had never undertaken the individual responsibility of leading a climb!

The point to be considered therefore in relation to this halo of sanctity which seems to have encircled the technicalities of ice and snow, with the primary essential of rock climbing pushed obscurely into the background, is, whether this attitude towards the sport as a whole can in any degree have tended towards the true sequential evolution of the compleat mountaineer? Such an attitude surely limits the aim to a two-thirds efficiency in that direction.

On the other hand, it is quite obvious, of course, that the home rock-climber without experience abroad has even a lesser claim to that comprehensive term. The great majority of them will probably never pass beyond that stage and, similar to the writer, continue as rock climbers and thus remain only one-third efficient in a mountaineering sense.

But quite apart from those who find it an end in itself and others who decry it, should not rock climbing be considered as the initiating embryo of a development which aims at ultimate perfection in all three branches of the sport? All the evidence would seem to support that view.

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For there is probably no element in any sport or recreation which inspires such a deep sense of individual responsibility as the act of leading a party on a climb and it is doubtful also if there is any climber who, after having safely led his first rock climb has not realised, if only subconsciously, that he has advanced upwards in some small degree in the creation of character. And with each more difficult climb that follows that psychological uplift increases in proportionate ratio.

During the war the Alpine Club is believed to have relaxed its qualification for membership in favor of several of the younger type of men who had passed through this necessary evolution. An admirable move and since that time the Club, in conjunction with the Royal Geographical Society, has contributed liberally in financing many expeditions in which these younger men were concerned and in this way have affixed the final seal of officialdom in their obvious desire to evolve the compleat mountaineer.

Within rock climbing would thus seem to lie the necessary incubation of the compleat mountaineer to be. An unequivocal modern product! Emblazoned to-day in the public mind as the result of seventeen years of Everest attempts and a score or so of other Himalayan expeditions. Tilman and Odell's success on Nanda Devi as a notable example. The hundred per cent, efficients of these expeditions have been, almost without exception, men whose initiation has taken place upon our home mountains and within that experience of high responsibility the foundation for the finished product has been well and truly laid. Q.E.D.

No apology is offered for this "back bench" contribution to the politics of mountaineering. It is an exposition quite detached from the ex parte, and possibly an agreeable relief from the too dominant personal note of this 'swan song.'

But was it, after all, a 'swan song'? For following upon the Grooved Arête a doctor friend arrived from town and several moderate climbs took place to initiate this novice. It is not improbable therefore that the idea of the swan song in the writer's mind related only to classical climbs of advanced technique. Which it is hoped will acquit him of the charge of having written an insincere article. Or, does the solution of his apparent inconsistency lie in the fact that the most excellent mental resolves, even at the age of 72, may have to be surrendered to the more powerful call of the mountains? Let us attribute it to that.

As to the future, so long as it is possible to meet with similar altruistic leaders, it is hoped that moderately difficult climbs will continue to the end. For it is an old axiom of the writer's that it is only by means of intense and persistent physical and mental effort that the advent of the Great Reaper can be postponed indefinitely! And in what other direction can this parallel demand be more abundantly gratified than by the soul culture inherent in climbing?

MT. ROBSON TRAVERSE

By Howard Carlson

Robson has been one of the writer's objectives since the 1929 season in the Jasper country. It had, however, not been in the forefront. With its notorious reputation for bad weather it had not called very strongly to an unambitious climber whose visits to the mountains had been disappointingly irregular. That is, not until Dr. Max Strumia provided the urge by organizing a party to try the mountain in 1938—preferably by a new route. Unfortunately, the ringleader's health made it impossible for him to accompany the party for which he had been responsible. The writer's appreciation to Dr. Strumia for having provided the inspiration for such a satisfying experience is hereby recorded.

The party assembled at Robson station on Sunday, July 17. Dr. William R. Hainsworth had just arrived that day by train from the East. Hans Fuhrer, our guide, had arrived the same day by train from the West. The writer had had five days of luxury at Jasper Park Lodge, with not even the easiest of practice climbs to his credit. In fact, none of the party had done any climbing at all.

The weather had been settled, although unusually warm, for a week or so. Roy Hargreaves was busy with his haying, and opined that good haying weather was good climbing weather. With such a send-off, we headed for Berg lake on Monday, with pack-horses for the duffle and with saddle horses for ourselves. We did walk part of the way in order to begin limbering up a bit.

At Berg lake, on Monday evening, we proceeded to examine the north face of Robson through field glasses. The north face had appealed to Bill and Hans as a possible route of ascent. The mountain had never been climbed from that side and we cherished the idea of establishing a new route.

The north face contains an indentation which makes the main portion of the face bear some resemblance to a widely spread "V". In the "V" was a tremendous mass of ice and snow. At places the ice had melted, where it had joined the rock, and had left some large caves which appeared as though they might be as much as fifty to one hundred feet in height. To the right of the "V" was a steep snow slope up which we thought we might seek a route, if some reconnoitering indicated that such a route was feasible. That is, until a huge avalanche came thundering off the centre of the face, leaving one of those great clouds of snow in its wake. Without a dissenting vote we immediately agreed that the sky-line route, at the extreme left side of the north face, as seen from Berg lake, was a worthy substitute for our closer attentions. Some call this the north or northeast face; others refer to it as the Helmet or the north ridge. Its exposure is more to the northeast than to the north. It is, perhaps, a subsidiary face, and it is immediately between Helmet and Robson. (In an article written a number of years ago Mr. N. E. Odell speaks of the need for less confusing and conflicting references to certain features of the Robson landscape. With this view-point the writer is in accord).

Our programme had called for a conditioning climb. Resplendent had been more or less agreed upon for that purpose. It would serve to toughen us a bit, and would give us an opportunity to examine Robson somewhat more closely and perhaps provide a few pictures. However, the weather was temptingly good. Bill had seen it otherwise; he had made three previous attempts and been defeated each time by the weather. Hans, of course, was an old hand at Robson and had had experience with its notorious weather. The writer had heard of its reputation. Temptation got the better of us and we decided to try the mountain without conditioning. The time spent in establishing a high camp and in reconnoitering for a route would serve as training, we reasoned. (When we later had a day of enjoyable ski-ing on the Robson glacier, just above the Extinguisher, on what would be the route to Resplendent, we agreed that a ski ascent of Resplendent, with its

marvellous run down the long Robson glacier, well free of avalanches, would be something worth returning for, perhaps three or four months earlier in the year).

Tuesday morning we set out across Berg lake (5500 ft. elevation) by rowboat at about five a.m. At the foot of the moraine at the left of Berg glacier we shouldered our fifty to fifty-five pound packs and proceeded to take the punishment. We went up the moraine slowly, and then off to the left and up the rocks forming part of Rearguard. It was a matter of zigzagging up the cliffs, using shelves and ledges that are not bad in themselves but that called for some care in view of our loads. Where the glacier levelled off a bit we moved over to the right and on to the ice and then upwards, unroped, crampons having been put on in the meantime. Our objective was the rock buttress which protrudes to the right of Berg glacier and which is below the large snowfield at the foot of the north face.

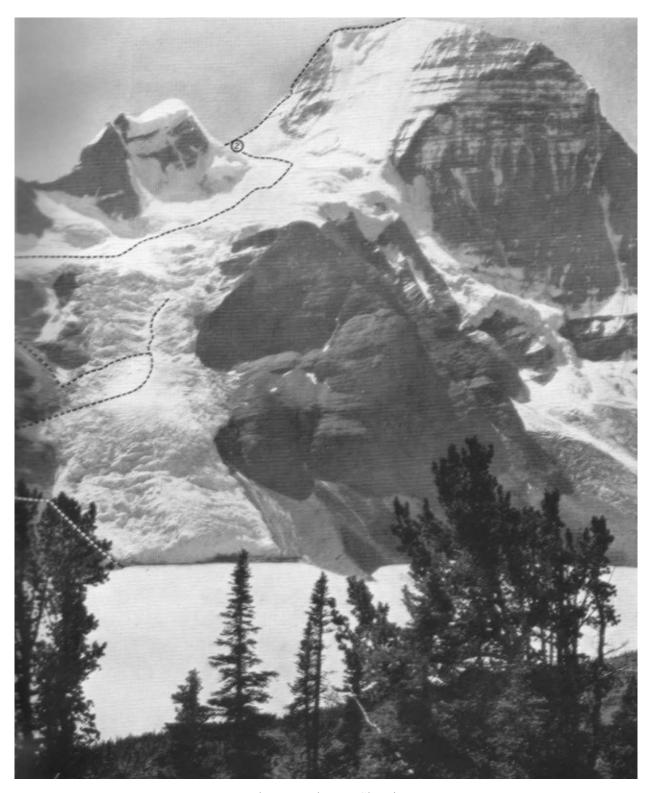
After we had gone some distance up the glacier our route and prospective camp site appeared less desirable than they had from below. The séracs were a bit precarious and the ice a bit steep in places for heavily laden climbers. It would be necessary to cross under a none too friendly looking ice wall. The snowfield above the buttress was looking larger and larger, and the camp site on the buttress less and less well situated, considering the desirability of an early start on the day of the attempt at the summit, when as and if the route appeared feasible. It seemed that a camp in the saddle between Helmet and Rearguard would be desirable for our first night out, with a camp in the snow saddle between Helmet and Robson to follow the next night. Reluctantly, we changed our course and retraced our way down the glacier, losing perhaps as much as a thousand feet of elevation. A most unwelcome loss, considering our loads and our condition. We then sweated our way up the shale and talus slopes to the left of Berg glacier, and finally at about four o'clock or so, we reached the Helmet-Rearguard pass and made camp between the two small lakes. A very comfortable camp site, with a convenient stream for water and with grass as well as rocks upon which to recline.

On Wednesday we headed for the Helmet-Robson saddle, mostly by way of the glacier which is in front of Helmet as seen from Berg lake. Finding snow on that portion of the glacier, we roped up fairly early in the day and went straight up towards the north face of Robson. Ordinarily, a number of crevasses must be circumnavigated there. We were not so troubled, however, as the avalanche of two days earlier had filled the crevasses or provided us with satisfactory bridges. Our progress was fairly good, all things considered, and we reached our camp site very early in the afternoon.

Our sleeping equipment was more or less standard—sleeping bags and air mattresses—but we had not bothered much about shelter. We had two shelter halves, which would have been of some limited help in case of bad weather, but which would not have been at all comfortable, if at all usable, as a covering for three. Consequently, for a shelter, we dug out a hole in the snow in the Helmet-Robson saddle (10,700 ft. elevation), within sight of Resplendent. Very satisfactory, under the circumstances, and a new experience for the writer. The weather was still good.

On Thursday morning we proceeded to try out our revised theory en route. Our plans called for an attempt straight up the extreme left portion of the north face as seen from Berg lake, or up the Helmet ridge as it is sometimes referred to. Its breadth and its close relationship to the main north face made it appear that it might properly be described as a north face route, although we agreed that there was room for difference of opinion in the matter of terminology.

Beginning at a reasonable hour—perhaps slightly before four—we walked up the snow-slope ahead of us, using crampons from the start. We circled around the left end of the bergschrund, at which point the climbing was quite delicate, and then up the snowfield above the bergschrund, working over towards the right most of the time. The steps could be kicked, rather than cut, which aided our progress materially. We had left the bulk of our loads in the Helmet-Robson saddle. We not only did not wish to carry such burdens to the summit, but we feared the effects of such packs



Mount Robson North Face Showing Route. *Cut Courtesy Of Appalachia Photo C.N.R.*



Mt. Robson From Robson Glacier.



Camp In Helmet–Robson Saddle.

on our balance since the going, for the most part, was at least reasonably steep and was delicate in a number of places. We had contemplated the possibility of a descent via the south side, but had decided, in that event, to trust to luck without sleeping equipment or shelter.

After a session of some length on the upper snow-slope, we reached the rocks and then proceeded by way of the rocks, the snow, and the ice as they happened to alternate, A fair amount of step-cutting was necessary although nothing to compare with what was done by the Kain party on the first ascent of the mountain, which was by way of the east face, off to our left. Some of the climbing was delicate, and considerable care was necessary, since the average grade was fairly high and belays were noticeably lacking. We did find a place where we could sit down for lunch, but that was about the only place of that description we saw. Hans remarked later that we had had only one really good belay on the entire face.

As we got higher we found that we were subject to the possibility of snow slides from above—particularly from cornices on the ribs of our face or near the junction of our subsidiary face with the main face. That danger is probably the chief criticism of that portion of the route—that plus the fact that an enforced bivouac on the face, as a result of a storm or of being benighted, would be very unsatisfactory. These were some of the reasons for our later decision to descend via the south side.

In due course we poked through the cornice at the junction of the subsidiary and the main faces and went up and across a portion of the main face towards the ridge, which we hoped would lead to the summit. This portion of the face was steep, and the snow poorly consolidated, as a result of which we moved very cautiously. We soon reached the ridge and found that the summit was just a matter of distance. The walk required about three quarters of an hour or so, and We were on the summit (12,972 ft. elevation) some time after four o'clock. It had taken us some twelve to thirteen hours to make some twenty-two to twenty-three hundred feet of elevation.

After three-quarters of an hour on the summit we began our descent, via the so-called southeast ridge. (It has been asserted that this is not properly called a ridge, but the term employed above seems to be in most common use). Progress was not quite as rapid as it might have been. There were some fairly steep ice pitches where the writer's weariness and lack of broader experience on ice proved a retarding factor. When we reached the point at which the southeast ridge, as seen from Robson station, appears to level off towards the right, we started down the glacier, angling off towards our left. Hans proved very skilful in picking a route around the crevasses and over the snow-bridges. By night-fall he had brought us to the upper ice wall—at a point just above the wall, at the extreme left side, as we were travelling. We had hoped to be able to bivouac on the rocks immediately below the wall, and to our left, but we considered it inadvisable to attempt to negotiate, in the dark, what lay before us.

All things considered, our night on the ice was not a bad one. We were without shelter or sleeping equipment, but the weather was mild and we could at least move around to keep warm. We did try to get some sleep, sitting on our rucksacks, but had very little success in that respect. We had no means of cooking anything, but were grateful for the food and heat values in the uncooked sausages we consumed. We were thankful, also, for what remained of our original thirteen-ounce supply of one hundred and thirty proof Jamaica rum. My thanks to the person who first introduced me to "Governor General" at the time of the 1931 Camp!

When daybreak arrived we resumed our journey, finding a route down the ice, on to the rocks at the left, and then back to the ice and snow at the right, and then down the glacier below the upper ice-fall. Here we were exposed to the danger of falling ice, for half or three-quarters of an hour. Weary as we were, we pressed ahead in order to minimize this, our principal objective danger on the route of descent. As soon as we could, we angled over to the right, down the glacier, and then down

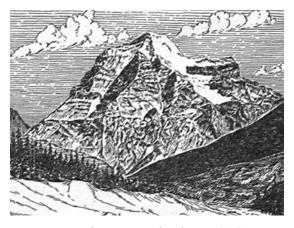
the rocks which were at the right of the lower ice wall. We then scurried along the shelf below the lower ice wall and were soon under the protecting wing of the rock buttress which is between the ice wall and the so-called high camp. The exposure to the risk of unwelcome contributions from the lower ice wall was very brief, not lasting more than a minute or two at the most.

We breakfasted at the high camp, had our first warm nourishment for a day or more, and found our spirits improved. The basking in the sun, which followed, also proved welcome, after which the weary trudge downward began, via timber line camp and then through the timber. It was extremely warm, and we were tired and thirsty. We finally reached Kinney lake (3300 ft. elevation), after slower progress than is normal, and pushed on, after a rest, to Robson station. At about nine or nine-thirty p.m. of the fourth day we reached the comforts of home again, in the form of the Hargreaves ranch, and could call it a day.

Naturally, we were pleased with our good fortune. We had figured that the odds were against us for even making the summit, much less a new route. The weather man had smiled on us, however, and we had been able to attain our objective, without a day's delay, without any more discomfort than one should expect when not in training, and we had been able to add a traverse to a new route. While thanking the weather man we must not overlook Hans Fuhrer, who did an excellent piece of guiding, and who did so much towards making our success possible.

Our route, and our climbing without conditioning, raise several questions. We do not consider our route an answer to the long felt need for a safe route up Robson, particularly in questionable weather. (Perhaps the answer is to try no route on Robson in questionable weather). There are certain objective dangers on the north face, to which reference has already been made. The undesirable features of the south side are already known. Climbing without training does detract somewhat from the enjoyment when fatigue finally overtakes one. It undoubtedly lowers the margin of safety somewhat, particularly if an emergency should develop. Nevertheless, we were pleased with having made the decision we did, considering the weather we had and the weather we might have had.

As for the glories of Robson, it should not be necessary to go into detail here. The impressiveness of the mountain from the south, where it rises almost ten thousand feet above its base, or from the north, where the glacier has a vertical ascent of an even mile above Berg lake, or from any vantage point that permits an appreciation of the mountain's massiveness should not require elaboration in a journal which has been devoted for years to the cause of the Canadian Rockies. We have hopes of returning to the Robson district before long, whether for climbing or whether for more leisurely enjoyment of that magnificent country. More likely the latter, if the return visit is long delayed, considering the ravages of time and of city life.



Mt. Robson. Drawing by R. G. C

SOME CLIMBS IN THE BUGABOOS

By Spencer Austin

Articles in the Canadian and American Alpine Club journals having aroused our interest in the region, August 15 of last year found Glen and Muir Dawson, Robert Brinton, Homer Fuller, Howard Gates and the writer— all members of the southern Rock Climbing section of the Sierra Club—in the town of Spillimacheen, B.C., near the Bugaboo group in the Purcell range.

Our primary objective was Bugaboo Spire itself, the peak described by Conrad Kain as his most difficult Canadian climb. In addition to Bugaboo we would try anything else of interest that time, weather and our abilities might permit.

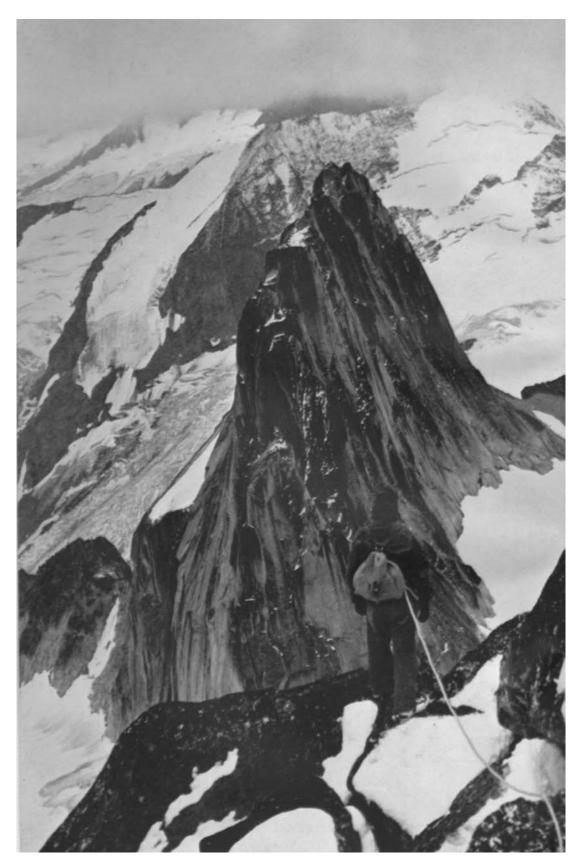
With only Kain's twenty-some year old directions to guide us, we supposed that we would be forced to backpack in over the old twenty-seven mile lumber road to the district, but to our delight we discovered that it is now passable to a high wheeled truck. This circumstance makes the region much more accessible than it has been in the past and doubtless will result in increased mountaineering activity in this peerless district. However, it is definitely not advisable to attempt the road with a passenger car. Hire a battered but serviceable truck as we did.

After an eventful drive of three and one half hours (logs, brush, streams, etc.) we rounded a turn near the end of the road close by a miner's cabin and ahead, falling down into a level forested valley from unseen ice fields above, was the Bugaboo glacier. The most blasé climber, I imagine, would be impressed by his first sight of the spray of spires rising out of this glacier. Certainly it was like nothing we had ever seen.

Leaving the truck we packed up two and one half miles to our first camp, which was situated about three quarters of a mile below the terminal moraine of the Bugaboo glacier. That afternoon we paid a visit to some American Alpine clubbers-Cromwell, North and Engelhard—who were camped nearby. Bad weather, they said, had prevented them from climbing for considerable periods. The bad weather continued for a few days but we made a reconnaissance and found a much better and higher camp site on the left lateral moraine and just below the moraine that fills the amphitheatre made by Bugaboo, Snowpatch and Crescent spires. This camp had been occupied earlier in the summer by Fritz Wiessner. From this point, on the first half-way acceptable day Brinton, Fuller, the two Dawsons and I set out for Bugaboo, Brinton leading. It was easy going across the glacier in the amphitheatre and up the Bugaboo-Snowpatch col. From the summit of the col we enjoyed a fine view across the Warren glacier to Pigeon and Howser spires but as the weather was threatening we hurried on up the first 1000 feet of unroped climbing, keeping the crest of the ridge on our left. This easy scramble ended in a sheer rock wall, so we changed to crepe soles, roped up and mounted to the crest of the ridge. From this point on we encountered interesting rock work and we deeply appreciated the good solid granite to be found in this district. There was little snow but we soon discovered that crepe soles plus wet lichen spells caution. Soon we were faced by the famous gendarme, a pyramid that straddles the ridge. Viewing it, we remembered Kain's description of his hour and a half struggle to surmount it. We took his word that there is no way to get around and we appreciated his skill all the more in view of the fact that he led it for the first time—and without the aid of pitons. Attacking this pitch, we went along a ledge to the right and drove in a piton about six feet up, and one by one climbed to a seat about half-way up the thirty-five degree slope of the gendarme. On the other side we came upon a piton (doubtless left by Wiessner) a



View From Brenta Spire



Snowpatch Spire From Top Of Bugaboo

few feet out on the holdless fifteen-foot traverse that led to a vertical crack. Negotiating this traverse each was alone with only the rope and distant voices to remind him of his companions. Glen described it as a "short delicate balance climb." Some mountaineers are capable of the d—mst understatements!

With this pitch behind us it was ordinary straight forward rock work to the summit—or rather to the summits, for Bugaboo has two. As the weather was threatening to break we were content with the first. As a matter of fact so hurried were we that when the second rope reached the top the first was already starting down. We just registered, took a few photos and left. When we came again to the gendarme we roped down about eighty feet to a ledge that led to the start of the pitch. In pulling down the rope it became fouled in an impossible place and we had to cut it. I hope no one takes it for a fixed rope.

As far as we were able to determine we accounted for the fourth ascent of this peak. This is unimportant however; the chief thing is the climb itself—and we found it highly enjoyable. Kain gives 10,250 plus feet as the altitude, an ascent of roughly 3250 feet from our camp. We rated the climb fourth class with the gendarme pitch full fifth.

Because unclimbed Snowpatch spire towered up close to camp we had a fine opportunity to study this awe-inspiring peak. On various climbs we inspected it from all sides and as far as I am concerned it is the most formidable peak I have ever seen. Kain did not attempt it, declaring it beyond his powers. On all sides the strata are vertical and there are no ledges or ridges giving access to it. Seemingly the only possible route would be from the south in an effort to reach its distinguishing feature— the snow patch, and from there to trust to luck to find a route not visible from below. What with bad weather, lack of time, and a very remote chance of success we did not make the attempt. We were told that Wiessner failed to reach the snow patch that summer and that he reported that it looked worse ahead. Cracks for the necessary pitons apparently do not exist in sufficient number.

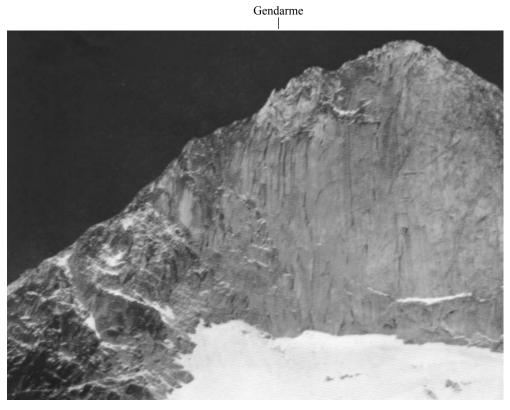
The night after the Bugaboo climb it snowed heavily and we were inactive for two days. On the third we split into two parties to climb Brenta and Crescent spires. Brinton, Fuller and Gates made Crescent and pronounced it a walk-up. From the top, however, they enjoyed what is doubtless the finest view of the entire range, commanding as it does a panorama of all the other peaks. The two Dawsons and I climbed Brenta, easy enough except for about 400 feet getting up onto the Arête from the east. Once on the Arête near the Brenta end of the Crescent-Brenta Arête we simply promenaded to the top except for a short stretch near the summit where we roped, although even that was not necessary. Blessed finally with a really clear day we remained on the summit almost two hours. Nearby we could see Northpost, unclimbed, at least until last season. It looked easy. To the west across the Warren glacier lay the Bobbie Burns range, one sheer, sharp pyramid drawing our eyes. This is almost virgin territory for the mountaineer but it is difficult to reach. One way would be to go up the Spillimacheen-Bobbie Burns river valley but, as Kain pointed out, getting a pack train through would not be a simple matter. Another way would be to back-pack from our side over the Bugaboo-Snowpatch col or between Marmolata and Snowpatch and so down to timber. We called Brenta a second ascent.

Next day we were to pack down to the end of the road but Brinton and Glen Dawson got off to an early start and climbed Marmolata before joining us below. They found the record of Kain's "birthday" ascent. It was a good climb, they said, but they complained of much snow.

Later we drove to Banff and Lake Louise, climbing Victoria and Louis, with Brinton and G. Dawson making a traverse of Victoria. All this was highly enjoyable but almost in the nature of



Bobbie Burns Range From Brenta Spire.



Profile Of Bugaboo Spire From The East.

Route Follows The Ridge From Left To Right.

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an anti-climax after the Bugaboos. This latter district, abounding in game and spectacular scenery, undoubtedly will receive more attention due to the improved road. The weather, which seems inclined to go bad for considerable periods, is the only drawback and climbers on short vacations are likely to find themselves in their tents most of the time. Nothing, however, can alter the fact that nine peaks may be climbed from one camp—and for those who want a challenge, Snowpatch looms up an easy half-hour's walk from a lovely camp site.

WEST OF SPILLIMACHEEN

By Marguerite Schnellbacher

"The Bugaboos!" Who could resist that name? Years ago from a distant pass east of the Columbia, I had noticed these jagged peaks and was completely captivated by them. Particularly when our packers said that no one had been there, did I long to go in among them. But our informer was mistaken. It was thought that gold could be found there and one man firm in his determination returned a number of times, each time, the story goes, thwarted in his efforts by a tumultuous creek that hurtled down the valley floor and caused the loss of his equipment. The region was thereafter known as the Bugaboo country. Others followed this pioneer but few traces of gold were ever found, though to this day galena is mined there.

It was to this untamed country that a party of us determined to go last summer and after the usual excitement, doubts and hopes, we finally got under way.

On July fourth, Polly Prescott, Sterling Hendricks, Percy Olton, Lawrence Coveney and I left Spillimacheen. Polly and I had arrived a few days previously. Our duty was to hire a cook, to buy all the food which we had not already stocked and it was even suggested that we take one load of supplies up the twenty-five miles of road which we were told existed.

Having investigated this road on foot and finding ourselves in water well above our knees, Polly and I decided that our little old car could never make that trip. In fact, we decided that very few cars other than a truck with high clearance could navigate it. The men were politely doubtful when we told them the situation but as soon as we started in, in Mr. O'Loughlin's truck, they were inclined to believe us. Our mirth and gaiety over the manoeuvres of the person assigned to support the precious benzene tin, changed by degrees to suppressed groans and determined gritting of teeth as the miles slowly fell behind. For four hours and forty minutes this agony lasted. But whatever our feelings while being tossed and slammed about might have been, they changed to complete joy as a sudden turn in the road revealed the fantastic peaks of the Bugaboo range.

To our amazement we saw much snow. Somehow we had all been of the opinion that there would not be much but now we found it reaching high up some of the slopes.

It was too late to pack in to our camp, so we made shift of the miners' cabin located at the twenty-five mile post. Our cook was a bit bewildered by our confused orders for supper and breakfast but he seriously tied his apron strings and washed his hands. Whatever doubts anyone might have entertained that night as to his ability were not pronounced, but within the next two weeks Ike proved his worth over and over.

Under burdensome loads, we bush-whacked the next morning through endless scrub willow and all too frequently forded the creek. Finally we reached the end of the Bugaboo glacier. Here in a beautifully secluded spot under magnificent evergreens, we made a rather elaborate camp only to be completely disillusioned by the hum of millions of mosquitoes that soon found we were appetizing morsels.

While everyone else made another trip to the cabin, two of us were delegated to go up higher and possibly locate another camp site. We climbed along the steep moraine on the right side of the glacier to the tree line. Here we found a perfect camp site, an abundance of clear water, wood, and heather for a floor and, best of all, practically no mosquitoes. Returning to camp, we found it empty so we set out to bring up another load, meeting the others hot and tired carrying their third load to camp.

The following morning we left camp at seven a.m. The long preliminary trudge before reaching the tree line fixed the decision to have a higher camp. Making our way up the glacier around the base of the Snowpatch, we scanned its terrific precipices for a possible route up the southern wall, but found nothing that looked remotely possible. We crossed the Bugaboo glacier to the north wall of Marmolata where we decided to climb up a steep snow slope, cross the bergschrund and, by following a series of cracks almost straight up, we hoped to reach the summit. We found the rock offered fairly stiff climbing. This being our first climb of the season, we were very slow and were finally forced by threatening weather to abandon the attempt to reach the ridge.

The weather cleared somewhat as we reached the glacier. As the clouds parted for a minute we could see the point at which we had turned back and to our sorrow we found that we had not been more than one hundred and fifty feet from the summit. Disappointed but hopeful of better luck the next day, we returned to camp by nine o'clock.

After a night of savage battling with the vicious mosquitoes we were more determined than ever to make a high camp. That morning we started to move up. For hours heavy loads were lugged up the steep slopes but the drudgery of the move was forgotten as one settled down on a bed of heather and slowly rolled over to find glaciers and snow-capped peaks on three sides and a lush green valley fading into remote green mountains on the fourth.

The next day we set forth early but before getting far we were turned back by rain. It was not a storm of great proportions but enough to dampen the ardor of some tired climbers to whom a day of rest seemed necessary.

Our second climb was thwarted as was our first. Full of enthusiasm over the splendid form of Howser Spire, we made our way over the Snowpatch-Bugaboo col, over the glacier and up to the bergschrund which guards the east face of the mountain. Along this yawning chasm, we cautiously crept. At a point where the schrund was filled with masses of ice and snow that had fallen from a large square section of the upper lip of the bergschrund we hoped to gain the steep snow slope above. While we waited patiently below, Sterling hacked lustily at the ice in hope of finding firm enough ice to cut steps in. With skill and energy he worked for about an hour only to find it as rotten below the surface as on top. Declaring it unsafe to use, he recrossed the crevasse and we returned quickly to the glacier below and over to the col between Pigeon and the south tower of Howser. Donning our rope soled shoes, we scrambled up the west ridge of Pigeon. Dropping abruptly off on either side, the ridge formed a real knife edge but the rope soles clung well and made progress easy. A magnificent view rewarded us. For a long time we lingered surveying with interest the Bobbie Burns country and decided that we must make some sort of trip over there.

On July 10 most of the party went up Bugaboo. Following the route used by Conrad Kain, they found the climb a really first-class ascent. The extreme exposure of some of the most difficult pitches made a deep impression upon all and they returned to camp that night filled with joy of accomplishment.

By this time everyone was again ready to rest so July 11 became one of those extraordinary days when one works twice as hard, resting, clearing and sorting one's possessions as one would making an easy ascent. Late that afternoon a distant yodel announced the arrival of Fritz Wiessner and Chappell Crammer.

Our plan to all try Howser Spire together was altered at the last minute by the unexpected decision of Fritz to try the south tower of Howser. Taking Lawrence with him, the others again advanced to the lower lip of the big bergschrund. But this time we moved much farther to the right where we found a relatively safe bridge. Up a very steep snow slope we moved, then upon reaching

the rocks we traversed slightly to the left to a wide couloir at almost the midpoint of the face. With only slight variations, we climbed diagonally to the right and to the ridge. A few gendarmes presented interesting problems. At one place the only solution was a tiny ledge along which we traversed. Looking down between our feet the mountain side dropped away so that one seemed suspended in the air. At another gendarme we thought we were stopped but a small crack on the right offered a good way out of the situation.

Although a cold wind hardly permitted one to stand up on top, we lingered for over an hour. This highest point in the Bugaboo range offered an exceptionally fine view of the surrounding country. Far below us we could see our two friends still trying in vain to find a starting point for the ascent. It was not until we returned to the glacier that they gave up.

En route to the Snowpatch-Bugaboo col which we had crossed in the morning, we stopped to examine more critically the fearful west wall of Snowpatch. This peak, the piece de resistance of the Bugaboos did not appear any more climbable from here. Two questionable routes were discussed at some length but we knew that a feasible solution would require days of persistent work and our time was limited. Furthermore it was doubtful if even with plenty of time one could conquer the peak.

Our trip to the Bobbie Burns group was next scheduled. Fritz and Chap, stayed behind to rest and work on another route on Snowpatch. Again crossing the Snowpatch-Bugaboo col and around the base of Bugaboo itself, we descended to the Warren glacier. From above, it looked like a red lake because of the presence of some algae which colored the snow. As the sun was not yet up, the ice was hard and we crossed with no difficulty. Later in the day with the melting of the ice it is doubtful if we could have crossed there at all.

We made our way up the opposite glacier keeping to the right instead of heading for a pass more to the left. This pass we called Bear pass because we saw a big one making haste for it across the ice to get out of our way. We worked slowly up to a col which proved exceptionally beautiful. Here a small sapphire lake nestled between the rock wall and the ice. Tiny icebergs floated placidly on the surface. Crystal clear and icy cold, we found the water most palatable after hours of trudging through heavy snow in the blazing sun.

The approach to the peak that we hoped to ascend proved more difficult than we expected. As we crossed the col and looked down the other side, we found much to our surprise another glacier not shown on the only available map of the region. We had to descend over a thousand feet in order to reach the base of the mountain. To climb the ridge on the left was impossible. The sun beat down mercilessly as we worked to regain the altitude we had lost. We chose what seemed the most likely couloir, to the right shoulder. Here we found ourselves cut off from the main peak by huge gendarmes which we realized would be out of the question to work around. Dropping down the other side of the ridge and climbing up to a ridge at right angles to the one we just left, we could see our peak was well guarded from approach on this side too. The ridge bristled with gendarmes that pierced the sky line.

Rather than to return from this trip of exploration without having reached any summit, we chose a little one near at hand. This we promptly designated as Sub One and trust that no one else will have the hard luck of taking it as a consolation instead of a bigger one. Having built a cairn on top, we descended into the gully between the two peaks and came out eventually far down on the unmapped glacier we had partially descended in the morning. It was separated at this point from the Warren glacier by a grassy promontory. The sun was setting and we knew a long distance lay between us and camp, so we voted for a bivouac for the night and an early departure on the

morrow. Fine water, a grassy bed and plenty of firewood made a comfortable camp site and by carefully rationing our remaining food supply, we felt no real hunger. A brilliant moon circled serenely over our little oasis dramatizing the scene.

Before dawn we were up and on our way to the ridge between Bugaboo and Crescent which separated us from our camp. The ascent from this side was only a walking matter but the descent from the other side required roping down a steep and atrociously rotten couloir. Having descended first to a rock platform I promptly fell asleep as the sun poured down and as the minutes lengthened while the others roped off.

The return to camp was uneventful, only memorable due to the great joy we experienced in being well fed and rested after a night out in the mountains.

During our absence Fritz and Chap, had worked on a route up the east face of Snowpatch from a point almost below the patch of snow which identifies that peak. By using quite a few pitons as safety devices, they had laboriously succeeded in reaching the snow. Here Fritz had a better view of the wall to the top. The time necessitated in arriving at this point made further climbing impossible. Furthermore after careful consideration he believed that only by use of artificial aids can the summit of the spire be reached and that appears doubtful. By the next morning we were ready for our last climb. Brenta was our choice. The approach was easy if a bit long over miles of snow fields. A survey of the situation from the foot of the cliff below the Brenta-Crescent col indicated the easiest route started to our right and continued diagonally back to the col, thence up the north ridge to the summit. Most of the ridge was merely a scramble over a tumbled mass of rock and scree but the last few hundred feet offered some good pitches with one good lay-back and a fine chimney.

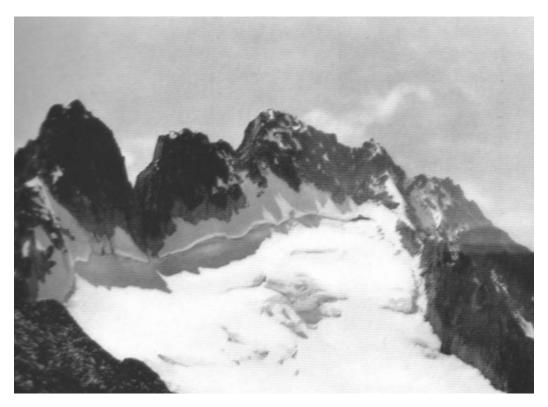
We constructed a cairn and played around until the sun drove us in search of water. This we made by melting snow in various methods. Overcome with laziness we finally decided we must return so we swiftly descended to the col. Some of us roped off from the top of the cliff while Sterling and Polly found a route down which they could climb. This would have shortened our climbing time on the ascent had we only examined the place a little closer.

On July 16 we had to pack out. Caching what food we had not used, we adjusted our rucksacks and found them none too light. Reluctantly we left this climbing Paradise and moved down to our first camp. Here we lunched and then started the inevitable battle with the willow. For days the sun had been pouring down on the snow fields above and now the creek was so high that the logs we had used for bridges on the way up were almost under water. A slip from one with a heavy pack might have spelled disaster, so we kept to the left of the valley and thus avoided crossing the stream.

Mr. O'Loughlin met us with the truck according to plan. We piled in our battered equipment and settled down to the severe shaking up which we knew was coming. Bouncing over rock and logs, the truck rounded a bend and once more in the fading light the Bugaboos vanished from sight.

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Howser Spire (Centre)
South Tower On Left.



Bobbie Burns Group From Pigeon. Photo M. Schnellbacher

CROSSING GARIBALDI PARK TO MAKE THE FIRST ASCENT OF MOUNT PITT

By Ernest A. Jenkins

Only that part of Garibaldi Park which can be easily reached in day hikes from the Black Tusk meadows is at present well known to climbers. This regularly visited area, roughly bounded on the south by Mt. Garibaldi, on the east by the ridge extending southward from Mt. Castle Towers, and on the north and west by the Cheakamus river valley, comprises about a quarter of the total area of the Park. Most of the peaks to the north of this region, Mt. Sir Richard and Mt. Mamquam to the east, and the most prominent summits in the panhandle just north of Fraser river have been climbed. There remains, however, fully half of the park which has not as yet been visited by any mountaineer.

The distances are not great. Mt. Pitt is only fourteen miles as the crow flies east of Garibaldi lake, yet till this summer the greater part of the route to its base had never been explored. The Provincial Government's map of a portion of Garibaldi Park, prepared chiefly from photographic surveys made by A. J. Campbell, covers the whole area between the lake and Mt. Pitt, but of course such maps never show "minor features of great importance to the climber."

In the summer of 1938 Garibaldi Park was closed to all visitors between July 24 and August 6, because of the fire hazard. However, my brother Charles and I were lucky enough to enter the area before the ban was imposed. At noon on Monday, July 4, we left Vancouver, and arrived at Garibaldi station at about 5.45 p.m. We packed our supplies the nine miles to the Black Tusk meadows during the night, and next morning rowed some four miles up Garibaldi lake to the well-used Lakeside camp site, where we set up base camp. We rested during the afternoon, and on Wednesday morning set out for Mt. Pitt with five days' supplies, determined to take full advantage of the good weather.

We first proceeded up the snow-covered Sentinel glacier to the saddle leading to Pitt river valley. We had been advised to go down the small glacier a short distance before commencing the long traverse to Gray pass. However, reluctant to lose altitude, we went directly across the rocks and heather ledges, on a level with the saddle. As a result we had to make a steep descent into a small glacier cirque northeast of Sphinx Mt. Beyond, the ascent of the glacier leading to Gray pass was tiring. We arrived at the pass (6900 ft. elevation) which divides the drainage of the Pitt river from that of the Cheakamus, at 12.45, and, finding nothing but snow-covered ice, decided to push on to a more comfortable spot for lunch.

We began the long traverse of the entirely glaciated, and much crevassed, northern face of Parapet Peak, and were lucky enough to find a tiny rock ledge under the cliffs of a buttress, where we could get water. But it was chilly here. We did not stay long and a short distance farther on we were rewarded by finding warm heather-covered terraces on the western rim of the huge basin of Isosceles glacier. We had to descend some 500 feet over steep rocks and snow to the almost level glacier floor, where, at the 6000-foot level, the ice was still entirely snow-covered. This glacier is about a mile wide and three miles long.

From this point, the journey to Mt. Pitt would consist of the crossing of three ridges, each running north and south. The crest of the west ridge is at 7000 feet; the others rise to about 7600 feet. The west ridge projects northward from the uplift which contains Parapet and Isosceles Peaks; the middle ridge runs southwestward from the Mt. Sir Richard massif; the east ridge, like Mt. Pitt itself, is isolated. These ridges are separated by deep valleys, with passes at about the 5000-foot

level. The upper parts of all three ridges consist entirely of glacier and névé, with barren rock buttresses and pinnacles jutting through here and there. At the time of our journey, the snow was not granular, but in many places had been melted into parallel rows of furrows a foot deep, which extended unbroken in regular curves for hundreds of yards. These made walking tiresome. Only on the southwestern slopes just above the passes can one find heather and a few low trees.

We ascended the west ridge by a snow-covered glacier slope, traversed its eastern side diagonally northwards down to the 5200-foot pass, and set up camp at 7.00 p.m. among low cedars at the 5700-foot level on the opposite slope.

Next morning we left camp at the late hour of six o'clock, intending to climb Mt. Pitt and return to camp before nightfall. Considering the fact that we had before us two climbs of 2000 feet each before reaching the mountain at all, and that there was just as much to be done on the return journey, our plans would seem to have been extremely optimistic.

However, we made rapid progress. After climbing steep rocks just above camp, we mounted a big snowfield, climbing southeast towards the ridge crest, where we passed around the south end of a rock buttress. Then we traversed an extensive snow slope towards the northeast, passing over a minor ridge. Beyond, we glissaded down steep snow and crossed a short band of rocks under a waterfall to reach the floor of a big cirque just west of the pass. This valley is very wide, with its floor at 4600 feet, the lowest point touched on the whole trip. Though we crossed only a couple of hundred yards south of the actual pass, the roaring 20-foot wide stream could be crossed, without wading, in only one spot.

The ascent of the east ridge led over steep rocky knolls to a snowfield very similar to that on the ridge we had just crossed. We were on the ridge crest, at 7500 feet, at 11.00 a.m., and had before us the descent to a 5200-foot pass before commencing the actual climb of Mt. Pitt. We edged across the slope towards the east as we glissaded down; then we had to descend very steeply over 200 feet of loose and splintered granite fragments to the pass. Here we had lunch from 11.30 to noon.

As we ascended the northwestern buttress of Mt. Pitt we were surprised to find that, while all the outcrops on the two ridges we had already crossed were of granite, Mount Pitt itself seemed to be made up of chlorite schist, with the strata tilted almost vertically, and with fairly definite lines of cleavage. There were many big angular blocks of it on the slope, with sharp edges and straight, smooth faces. The color was predominantly brown.

We traversed below the summit of the buttress; walked some three hundred yards along a connecting ridge; and at 2.00 p.m., at the 7000-foot level, were in a position to begin the actual climb of the central mass. We had been wondering whether to traverse the snow above a fine hanging glacier to the notch between the north and south peaks, or to climb the rock to the north peak, whence we would traverse the ridge to the south (highest) summit. From a distance, the snow traverse had looked very steep. Now we could see that its angle was moderate, and that the rock climb would involve much time spent in route finding. It was getting late, and we chose the snow.

The traverse was made quickly, and the snow gully leading to the ridge presented no difficulty. At the notch we discovered that there was a considerable snow-field on the eastern side of the mountain, only a few feet below us. However, a hurried inspection revealed no easy route from the snow up the sheer eastern side of the ridge. We went on up the ridge crest, toward the south. On the ridge the vertical strata were very loose, and all the ledges were covered with debris close to the critical angle. The ascent was steep, and required time and care. But there were many alternative routes along the western side of the crest, and we made steady progress. We passed a pinnacle by a convenient ledge, and reached the summit, at 8160 feet, at 3.40 p.m.

We paused only long enough to take a few photographs and leave our record. Northward the bulky mass of 8700-foot Mt. Sir Richard rose well above the nearer ridges. To the east were the ranges beyond Lillooet river, and, closer, a beautiful lake with a narrow sandbar across it, and a glacier discharging icebergs into its western end. South of the lake stretched the extensive glacial area between Lilloet and upper Pitt rivers, with many peaks well over 8000 feet high. This unexplored region, which comprises at least a hundred square miles, will probably be the scene of the next pioneering work done in Garibaldi Park. Toward the southwest, clouds obscured most of the Mamquam snowfields. To the west the more familiar peaks rose beyond the ridges we had just crossed.

We started down at four o'clock, and were in the first valley at six. By nine we had crossed the east ridge, after losing some time on a steep traverse above the ice. In the big 4600-foot valley we found the huge tracks of a bear that had been investigating our footprints during the day. Charles declares that my pace quickened noticeably just after we made this discovery.

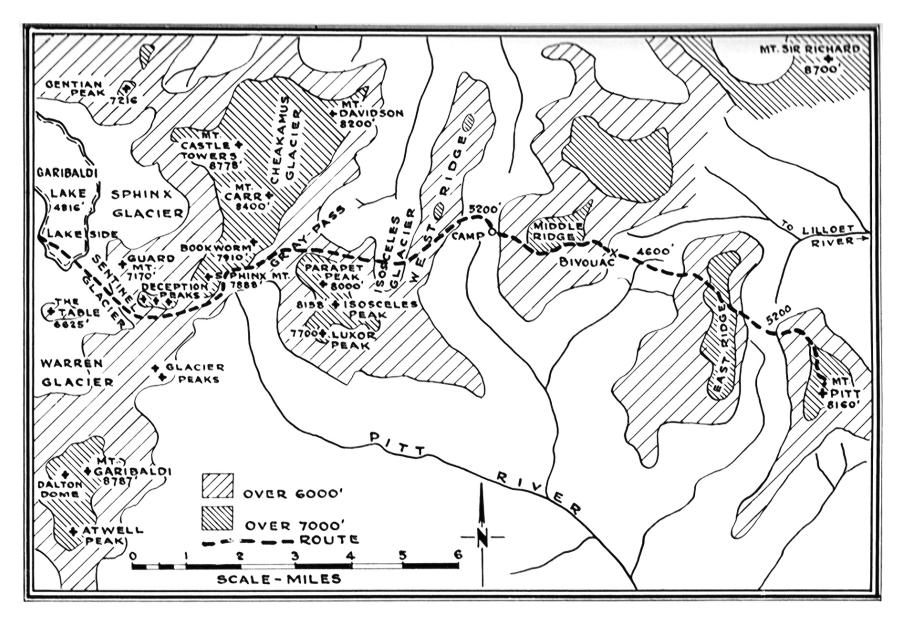
It was ten o'clock by the time we reached the rocks above the cirque glacier, and as we were now very tired, we decided to bivouac rather than to risk a slip in the dark on the steep hardened snow above. We had just been well dampened as we passed under the waterfall in the dark, and were far too cold for comfort during the five hours spent on the tiny sloping ledge. There was no fuel whatever to be had. Nevertheless we were tired enough to get some sleep.

At three in the morning we started off up the snow. As the slope moderated on the summit snowfield we were enveloped in thick clouds, driven by an icy southeast wind which came up in gusts from Pitt river valley. Our footprints of the day before had been completely melted out, and we had nothing to guide us over the white featureless waste. We were bound to reach the crest, of course, but on arrival we found unfamiliar cornices guarding the descent on the other side. After what seemed to be a very long walk towards the south, during which we passed several utterly strange rock outcrops, we recognized the buttress we had passed the day before, and began the descent beyond with new confidence. Again we were lucky when a break in the clouds revealed the route to the lower snowfield at the critical moment.

It was raining when we reached camp, but had cleared by noon, and we enjoyed a well-earned rest day. On Saturday we returned to Lakeside, climbing Parapet Peak (8000 ft.) on the way. Here the only record was of the first ascent, by Don and Mrs. Munday, Neal Carter, H. O'Connor, and Mr. Thompson in 1922. We reached our tent at Lakeside at three in the afternoon, with the second week of our holiday before us, available for climbing the more familiar peaks.

Our trip to Mt. Pitt was hurried, and we had no time to explore with any thoroughness. However, we demonstrated that there are no serious obstacles on the actual route, and that the whole forty-mile return journey from Lakeside can be made in three or four days. Probably the best plan would be to make the first camp somewhere on the slope north of Sphinx Mt. and just southwest of Gray pass; then to make a second camp in the big 4600-foot valley on the east side of the middle ridge. This should leave enough time for an unhurried day climb of Mt. Pitt, with only one ridge to be crossed before reaching the mountain. The return to Lakeside from the advanced camp could be made in one day.

A high-level trip, keeping to the summits rather than to the valleys, is always most attractive to the mountaineer. However, there is no denying that heavy packing over the ridges is strenuous. For anyone wishing to spend several days in the region, probably the wisest route would be down the Pitt river valley from Sentinel glacier, then up the stream leading to the pass just west of Mt. Pitt. And we cannot help hoping that some day there will be a road up Pitt river valley from Pitt lake, which would bring the whole area within a few hours' drive of Vancouver.



Map Showing Route To Mt. Pitt.



View Southeast From Mt. Pitt Showing unexplored glacial area between Lilloet and upper Pitt rivers.



Mt. Pitt From The East Ridge. *Photo Ernest A. Jenkins*

ON FOOT TO MOUNT FORBES

By E. R. Gibson

Some years ago the Swiss Survey authorities decided to name a number of lesser summits and pinnacles on their high mountains, and thereby raised these points to the status of "peakdom." This, while it improved the appearance of the map, produced something akin to consternation in the minds of a number of elderly climbers, who were quietly resting on their laurels. These laurels, if one may be pardoned for mixing a metaphor, consisted in having accomplished the feat of climbing all the Swiss summits of over 4000 meters. Suddenly by a stroke of the pen a number of new "vier tausenders" were created, and the luckless aged climbers had perforce to polish the rust off ancient ice-axes, dig their climbing clothes out of the moth balls and sally forth to do or die. Here in Canada we have not yet got to such a stage in our nomenclature, but the desire to climb all the high peaks of the main range of the Rockies, beginning with the "twelve thousand footers," had induced Sterling Hendricks and the writer to climb these four during the 1936 and 1937 seasons. The opportunity to climb No. 5 in order of height, namely Mt. Forbes, 11,902 feet, presented itself this summer (1938).

My companion Bob Hind had been on many backpacking trips with me before, and we decided to approach the mountain from the Jasper end of the uncompleted Jasper-Lake Louise highway. Leaving Jasper by car on the morning of July 3 we parked the car just beyond Camp 27, near Panther falls, and shouldering sixty-pound packs we set on our thirty-five mile hike to the base of Mount Forbes. We camped that night about three miles beyond the end of construction in the main Saskatchewan (North Fork) valley. Next day we reached Graveyard camp at 11 a.m., had lunch there and left some of our grub cached in the eaves of the warden's cabin. From the horse trail one had lovely glimpses of the country to the west, Mount Saskatchewan with its Lighthouse and other fantastic pinnacles. Mount Amery ringed about by most forbidding cliffs, looking very inaccessible, and a number of unnamed but fine looking peaks just west of the river. We crossed the Saskatchewan by the old trail bridge just above its junction with the Howse river, and camped below the bridge beside the trail. Next morning just as we were cooking breakfast we heard the sound of horses and one of Rink's men came by, bound for the A.C.C. camp site. He was wet up; to his waist as he had had to swim his horses in fording the Howse. He gave us news of the Zillmer-Tiefenthaler party who were out on the trail bound for the Freshfield group and Glacier lake. Three hours march up the valley of the Howse brought us to the mouth of Glacier creek, where we were greeted by a number of goats and their kids at a salt lick. There is a good trail up this valley to the head of Glacier lake (five miles) and then gravel flats and fairly easy going to the head of the valley, where we made our base camp, beside an old Survey camp site (6 p.m.). The Glacier lake valley is deep and narrow and Forbes is a most retiring mountain, only just the tip of its snowy head being visible from the valley floor: I could, as a matter of fact, just see it from my sleeping bag as I lay in the tent.

On Wednesday, July 6, the weather was unsettled and we rather welcomed this as an excuse for a lazy day. We did, however, reconnoitre the approaches to our peak, and found a feasible route across the tongue of the glacier flowing from the Lyell icefield, then up very steep grass slopes beside the precipitous tongue of the Mons glacier to its upper levels. The scene of this ice-fall as described by Outram was absolutely unrecognisable, due to the extremely rapid retreat of the several glacial tongues in the past forty years.

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On Thursday, July 7, there were some showers at an early hour, but by 6.30 a.m. it had cleared and we started. We had a 7000 foot difference in elevation to overcome, as the Glacier lake valley, which is nearly flat, is only at 4900 feet. Two hours brought us to the Mons icefield above the very steep tongue of the Mons glacier. From this point we crossed over to the tongue of the North Forbes glacier and put on crampons there (9.30). No climbing difficulties intervened between this point and the west col, where we stopped for lunch (11.50-12.15). Forbes rose sharply above us—a glistening white pyramid. Either ridge looked feasible, but the northwestern one appeared to be the easier of the two: the face between was exceedingly steep. Immediately above the col was the only climbing difficulty, a steep rock pitch about 100 feet high, which gave us some quite exposed climbing in one or two pitches. Above this we found some disagreeable scree which slowed us down considerably. At 2 p.m. we reached the tiny snow summit, which came to a perfect sharp point, the meeting place of the three beautiful ridges. The only record which we could find in the cairn was Dr. Thorington's of 1926. An approaching rainstorm chased us off the summit (2.30 p.m.) and one hour took us back down to the west col. Rain there hastened our descent and we got back to camp at 6.25 p.m. or eleven and three quarter hours in all for the round trip.

Our return journey was uneventful except for a sad disappointment at Graveyard camp, where we found that a bear had discovered our cache and eaten most of its contents. Fortunately for us we found some of Brewster's men there building a camp, and they very kindly made up the deficiencies in our menu. High water in the Saskatchewan river prevented us from crossing to make an attempt at a second ascent of Mt. Amery. We therefore turned our steps northward once more en route for the A.C.C. camp site, where a big job awaited us in the construction of the high camp on the Columbia icefield.

ROCK PITCHES NEAR HALIFAX, NOVA SCOTIA

By Horace Westmorland

The longing of the climber for the feel of balance on small holds and the bite of his nailed boot on rock, constrains him, when far from the mountains, to search for rock pitches on which to pursue his craft. If fortunate enough to find any he can maintain some of the local muscular fitness so desirable in climbing on small holds and he enjoys the feel of rock again.

Even boulders fill this need on off days and many well known ones come to my memory, those in Mosedale, Langstrath and Grisedale in Cumberland, and at Ogwyn Cottage in North Wales. One which whiled away a day of waiting for the ice to melt on the Kleine Zinne on the old Austro-Italian frontier, and another on the way to the Staffelalp at Zermatt.

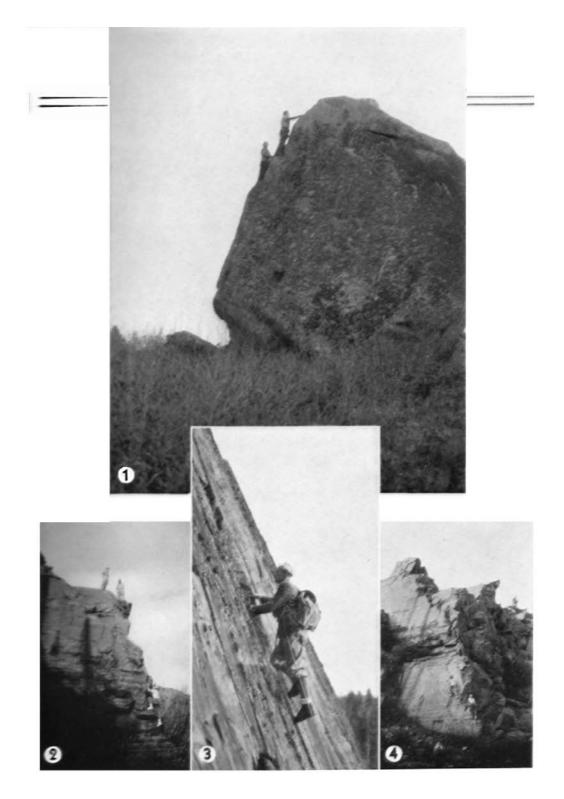
Three years ago the exigencies of my profession brought me to Halifax, N.S. for a tour of duty, leaving me with an ocean to cross to reach the Alps and well over three thousand miles of continent to cross to reach the Rocky Mountains, an unenviable position for a mountaineer.

As usual, and as is natural, mountain nostalgia overwhelmed me and the search for rock pitches began. The County of Halifax is almost all rock but unfortunately ice ages have worn the rock all but flat. A good deal of it is metamorphosed shale and there are granite intrusions. The small sea cliffs of granite south of Halifax provide only scrambling and twenty-foot pitches. The granite weakened by the sea water is so coarse in texture that backing up a chimney leaves a lasting pattern on the skin and at the top of each pitch the climber requires a few minutes in which to pick out of his hands the more painful crystals.

From Point Pleasant one winter's day a casual viewing with binoculars revealed across the North West Arm a well-weathered old quarry of reddish shale, containing a rather promising looking Arête and slab of some eighty feet. A few days later a miniature expedition of that most delightful variety, skiing-cum-climbing, led two of us to the foot of the little Arête where we discarded skis in favor of climbing boots, and from there climbed by slab and ridge and snow-covered ledges to the humble summit only eighty feet above. Since then we have climbed these little pitches in warm sunshine in rubbers, when it seemed far too easy, and in cold pouring rain in boots when it attained the standard of difficult. We have climbed it with novices on the rope doing their first climb and lazily without ropes on our way to the ledge above for a thermos tea. We have climbed up it, down it, and across it, we have descended it "en rappel," we have cut ice steps in the thick ice formed on its slabs. In short, we have taken advantage of it to give our friends just a little taste of the joy of climbing and to lessen our own longing for the mountains.

In our search for climbs we drove from one end of Nova Scotia to the other—from Sydney to Yarmouth and from Halifax to Parrsboro, and strangely enough we were fortunate in finding the best pitches a mere twelve miles from Halifax.

Northeast of Bedford Basin the Government map revealed the trenchant lettering "Eagle Nest" and visions of the Napes "Severe" on Gable came to the mind's eye. Investigation proved, as usual, disappointing. The rock escarpment, or metamorphosed shale, is perhaps two hundred and fifty yards long, much weathered and only exposes forty to seventy feet of slab and wall above the talus. The rock is partly over-grown by enormous lichens, one extra large rubber-like specimen having a diameter of seven and a half inches. At first the prospect seemed hopeless but as the sense of disappointment faded, certain intriguing slabs obtruded themselves upon our consciousness and promised some reward for endeavor. And so we fell upon the lichens, sitting in abseil slings



(1) The Boulder At Sambro.

- (2) Second Pitch Old Quarry Arete.
- (3) Finn Starting Up Lower Part Of No. 2 Slab.
- (4) First Pitch Of Old Quarry (Dalhousie Stone).

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with weapons varying from an old war entrenching tool to a gardener's hand fork. As we cleared away the gloomy parasitic growth, clean grey rock was exposed with small and some large hand and footholds. We cleared earth and twigs out of cracks, loose stones from ledges and cut down obscuring brush. The result is:

Slab No. 2 routes (a) Moderately difficult.

(b) Very difficult.

Slab No. 2 4 routes (a) Difficult, (b) Severe

(c) Difficult,

(d) Moderately difficult.

Loose block Arête 2 routes (a) Difficult,

(b) Moderately difficult.

and an overhanging wall which we personally recommend to climbers wishing to practice the use of the Prusik Sling.

Amusing as they are for an afternoon's exercise, these little pitches have no place in the pages of a Journal of mountain adventure. However, it is difficult to refuse an editor who is an old friend. In one way these rock problems have earned a mention, because on the principle of "Great oaks from little acorns grow" they have played their part. My companion had not previously experienced the intriguing technique of rock climbing and being a man endowed with unusual natural aptitude enjoyed it all to the full. So much so, that a few months after we had stood together at the top of Slab No. 1 we similarly stood on the summit of the Matterhorn, looking contentedly down on the alplands and village of Zermatt.

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AMONG BELLA COOLA MOUNTAINS, 1938

By W. A. Don Munday

A handsome mountain about ten miles south of Bella Coola valley attracted our attention in 1937, but approach to it was incompletely explored then, mainly because of accidental injury to the writer. In 1938 our party included Henry S. Hall, Hermann Ulrichs, my wife, daughter, and myself.

Henry arranged to have a man spend a week cutting trail up Nooklikonnik valley, in which case Henry thought the twelve days he could spare for the trip would be long enough. When our enjoyable voyage from Vancouver on S. S. Cardena ended at Bella Coola July 7, we found Walter Ratcliff had not finished the trail, he having been painfully hurt by falling close to where I had come to grief. Though still in some pain he undertook to go with us.

T. A. Walker drove us to Hagensborg where Mrs. G. Saugstad, daughter-in-law of Rev. Christian Saugstad, one of the founders of the Bella Coola settlement, very hospitably prepared lunch for us while we made up packs.

The trail was steep for some distance, the late afternoon sun excessively hot. We made about three miles to the virtual end of the old trail at "Break-a-back" Slide. Hermann made a rush trip most of the way down the trail to recover a valued watch of Henry's.

Beyond this the valley is a close succession of avalanche tracks meeting at the torrent. Under the "slide" alders the big boulders were hidden in head-high fern and other lush growth. Though grateful for such trail as Walter had hurriedly hacked through for several miles, we still found travelling slow. A bit of flat ground in a small grove tempted us to camp early in the afternoon—a wise decision in view of the going we later found beyond.

In showery weather next day Henry, Hermann and I worked hard cutting trail to the last trees in the valley bottom, at 3400 feet, about three-eighths of a mile from "Nooklikonnik glacier." Above it an imposing slender rock tower formed the lowest of the peaks which hide the main summit of Mt. Saugstad further south. Sight of the camp fire was pleasant at about 8 p.m.

On July 10 Walter returned in rain from Saugstad's with a load of food. On the 12th the weather relented a little, and on the 13th we moved up the valley, while Walter went down for more food. We camped in a deep rocky pocket above the creek. The alcove probably was some sort of "kettle" left by ice retreat. Two of the party could have used a trained grizzly in their four-hour struggle to make the boulder floor of their tent site reasonably smooth. The only other flat surface was a small pool.

Orange streamers of cloud on the peaks greeted us next morning. We left camp about 6 a.m., all a bit excited at prospects of what lay beyond the head of the glacier. The glacier snout was 400 feet above camp. Fog soon poured up Bella Coola valley, then up our valley till the sun broke it up. Then it hung awhile on the summits, but to our delight this proved one of those happy days in the Coast Mountains when the clouds go on up and dissolve instead of clinging stubbornly.

Mt. Saugstad's slim clean-cut north tower soars grandly out of "Nooklikonnik glacier." To westward on a higher shelf a parallel glacier had recently shrunk so that it no longer spilled ice over the intervening cliff. A large section of the lower glacier was only a few feet thick, so recession is likely to speed up.

Séracs of a good-natured ice-fall warranted stopping for a few photographs. The snow saddle at the top proved to be about 6500 feet. It opened a view of the dazzling snow-fluted face of the main mass of Mt. Saugstad. In the magnificent cirque a shelf glacier formed a mile-long ice-wall which intermittently discharged avalanches 3000 feet, producing on the glacier below fine examples of Forbe's dirt-bands. Rock walls in the col clearly showed great recent shrinkage of the névé.

We had not been too hopeful of this easterly face. The ice-wall quite ruled out approach, and in any event the slopes above offered no route safe from snow avalanches.

It being too late in the day to go down and then round to the west side, we turned eastward to a mountain which promised a comprehensive view of Saugstad and its surroundings. We had a mile or more to traverse, with some loss of elevation, often on south slopes so steep we were surprised they did not avalanche under fierce sunshine. This being Bastille Day in France, and nobody being interested enough to suggest another name, we called it Mt. Bastille. Height about 7700 feet.

Its rock ridge narrowed and dipped rather awesomely to the East Saugstad glacier which drains from a hanging valley into the west branch of Nootsatsum river. Since the glacier's former advance over the lip of its hanging valley it has shrunken vertically 200-300 feet; glaciers round its cirque are separating from the trunk glacier except directly under the great ice-wall. A box canyon at the snout apparently extends back under the ice for some distance. Bastille's northerly cliffs fell about 1000 feet to a broad glacier draining N.E. to Nootsatsum river which is Bella Coola river's first big tributary on the south side. A spur of Bastille hid junctions of east, south and west forks of Nootsatsum river.

Otherwise, our view was not so very enlightening as to the valley systems—existence of Bella Coola valley as a major valley would not have been guessed from here by a stranger seeing it for the first time. This area is distinguished by great depth of the valleys and their consistently steep sides. At times the avalanche danger in these valleys must be appalling. We noted several attractive little lakes in over-deepened glacial cirques above timber line in Nootsatsum river's extensive watershed. Most of the region is granitic, but a large part of the eastern divide of Nootsatsum river is stratified rocks.

A most distinctive mountain far northward possessed the odd symmetry of the end of a centre punch—dark walls rose nearly straight up to a snow-cap in the form of a flattish cone. We identified it as a well known landmark along the northern trails, pronounced locally something like "St. Ajjis." We finally disassociated it from any connection with the calendar of saints as Tsaydaychuz, 9020 feet, north of Dean river.

Perfect visibility held us long on top. Few mountains in sight had names. The scene was remarkable for the number of slim pyramidal mountains, some of them of good height and the best of them being exasperating in the inaccessibility of their geographic position. Miles are useless terms here to indicate times of travel.

We went back to camp more directly by way of a small glacier which no longer united with the east margin of Nooklikonnik glacier.

On the 16th at 4 a.m. we set out to examine the westerly face of Mt. Saugstad by way of the westerly glacier already described; the tongue butted against the southern wall of a rock dome somebody disrespectfully dubbed the "Lummox." This seemed enough provocation for the Lummox to try to throw an occasional rock into our camp at its northern base. To reach the glacier pass, (4800 ft.) we traversed steep slopes below the cliffs, partly on steep grassy slopes, partly moraine and partly hard snow. Tricouni nails proved particularly good.¹

In "Modern Ice Climbing Equipment," C. A. J., Vol. XXII, 1933, R. L. M. Underhill suggests the Tricouni heel, a set of replaceable nails in a light metal frame is of little value. In my opinion this applies only to rock climbing; on looser surfaces the frame as well as nails sinks in, increasing security, especially during descent. Incidentally, the Tricouni heel is lighter than the leather it replaces. As for putting Tricouni nails in boots, sole leather which will soften in 30 minutes soaking is obviously unfit for a climbing boot; by actual test good oak tan leather will not soak thoroughly in less than 48 hours' immersion in water. This soaking is of utmost importance. Makers of the nails supply a two-pronged tool to make holes to start the prongs of the nail; 14 years experience convinces me this is the right method although not wholly in line with Mr. Underhill's opinion. The ideal way to drive the nail straight is to hold the

The broad glacier tongue divided, part turning westward to a branch of Noch river. A western spur of Mt. Saugstad formed the head of this glacier, with some vague suggestion of vacancy between it and more distant slopes leading to the summit. We already had no illusions about the formidable nature of the long northern summit ridge and its great towers.

Crossing the flattish plain of ice to its far margin, we found the mountainside to be a cliff which increased rapidly in height southward; the glacier had withdrawn enough from the cliff edge to leave a border of insecure debris. On this stuff we climbed upward and around until a cliff angle suddenly revealed much to study.

Rusty rotten rock dipped about 2500 feet into a wild gorge, Y-shaped, occupied by two broken glaciers; their wet sheer headwalls offered no routes even if we got down into the chasm. Rock samples from here were kindly identified by Dr. W. E. Cockfield of the Geological Survey, as argillite, quartzite and some limestone. The strata are tilted at a high angle, giving a tile-like effect.

Beyond this gulf a broad ridge merged into the upper cliffs. (Their character was somewhat deceptive from this direction.) Below the easy section the ridge was truncated in cliffs we very much underrated. Farther south a broad névé was bounded by a ridge which increased its angle and difficulty as it merged into the upper mass of the mountain. Mt. Saugstad is a rather big crescentic mass. Its height was subject of much argument and no agreement beyond its being the biggest in this area.

We climbed upward along the crest of our spur for about 700 feet to the foot of the black cliffs. The closer we got the more unlovely they looked with thin shields of snow clinging to their glistening slabs. The corniced final peak peered mockingly past one of the turrets of the summit ridge.

Our reconnaissance quite definitely rebuffed, we headed campward straight down the glacier. Henry led logically down a steep but straightforward slope. I, taking advantage of the afternoon being young, gave way to the joy of forcing a route down through an ice-fall.

As we carefully descended steep hard snow of a long gully below the pass a goat headed upward. Alarmed, it galloped off to the cliffs of the Lummox and gave us an impressive display of climbing for nearly 2000 feet till our necks ached.

Clouds now formed fairly fast. Black rocks, shining snow and bold peaks of Mt. Saugstad made an unforgettable scene from the glacier.

Poor looking weather greeted us next morning. Some of the party proved reluctant to leave camp after an early lunch. Our plan was to cross the same pass, go part way into Noch valley, work as far south as we could find a suitable bivouac below tree line, and make one last attempt on Mt. Saugstad. We carried no sleeping bags.

In the pass we noted the vertical depth of the ice had decreased 60 to 100 feet within recent years. Winter ice still covered a moraine lake at the western tongue.

As we got down to a lovely heather terrace bordering a creek canyon, we sighted a flock of goats. A young one broke the edge of a snow bridge and was rolled over several times in the torrent. On a wet ledge a grown goat slid partly off.

The view down Noch valley was a wonderful example of glacial erosion. The valley possibly is 7000 feet deep, and remarkable for walls continuing at steep angles right to the summits of flanking peaks; several of them are mountains of much majesty.

We halted at an elevation of about 4400 feet. Ahead, the repellant slopes consisted of

blade in a slot cut in one end of a short piece of drill steel, then hammer the other end of the steel. Worn nails may be pulled out, the holes carefully plugged with wooden pegs fitting tightly, and new nails driven in the same holes. Nails will remain reasonably secure in sound leather.

avalanche-swept slopes. Tenacious trees, snow-crushed, grew in tangles suggesting partly octopodan ancestry. Through, over and under this stuff Henry and I explored for an hour to the high lateral moraine of the lower glacier in the Y-gorge. Red columbines were especially lovely in open spots among the trees. We brought good appetites back to the bivouac at 7.15 p.m.

Weather remained non-committal. We seemed to feel night temperatures more than mosquitoes. Not all the party adopted the technique, when trying to sleep, of wearing the hat over the face, with the head net draped round. I think my family slept fairly well, though my early rising was cited against me. One unwise member of the party left socks hanging in the open; dew drenched them though the night was only partly clear. An unsuccessful search for bacon delayed breakfast.

We got away about 4.40 a.m., and took much the same course to the glacier tongue. Once as Edith emerged from a tangle she observed cheerfully "You nearly had to come back and chop me out, daddy." We had to dig footholds down the inner slope of the moraine. Like Nboklikonnik glacier this one has melted back about 1000 feet since its last large-scale advance.

Crossing the torrent on slanting slabs, we went down to about 4100 feet, and continued southward looking for a break in the cliffs. The rocks, granitic here, looked like a good staircase ruined by uptilting till the steps were too steep for even a nonchalant mountaineer's liking. The broken skeleton of a young goat lay warningly below the cliff.

Henry led up alongside a small water course where many violet butterworts seemed happier on the slimy slabs than we. Handholds were mostly lacking. Above these cliffs extended a boulder waste, apparently ground moraine of a vanished glacier once occupying the broad platform between the two present glacier troughs.

We worked upward and across to the edge of cliffs overlooking the southerly glacier of the two, and found that the belt of rusty stratified rocks ran forbiddingly across the face of the mountain above us. Dense cloud hung low on these precipices and weather prospects gave no comfort.

Difficulties had been much greater than we had expected, and the return trip could not be made much faster. We growled a bit about the wisdom of turning back, but all recognized it. We had at least satisfied ourselves that another pass offered a more favorable approach to the mountain. We got back to camp about 7 p.m., all fairly tired.

On a spring ski trip in Garibaldi Park we had found Skol, a tannic acid solution, a reliable sunburn preventive, but our lips dried so badly they split. We were now using an alpine cream compounded by Peter Harper, a chemist who is a member of the British Columbia Mountaineering Club. It permitted tanning, prevented burning, was non-greasy and invisible on the skin, and protected lips perfectly.

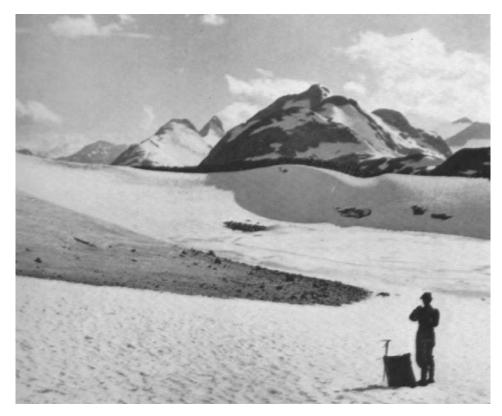
Instead of the usual rubber-soled canvas-topped shoes for camp wear I tried shoes with leather uppers and crepe-rubber soles; they were no heavier, kept out moisture well, and of course, gave better footing.

Not too early on the 19th we toiled part way down the valley. Next day was stifling hot. Mrs. Saugstad and her daughter fed us royally before Walker arrived to take us to Tweedsmuir Lodge.

There we met R. T. Zillmer and L. Tiefenthaller recuperating from an exhausting trip over a long stretch of Alexander Mackenzie's 1793 route to Bella Coola valley.

Henry Hall left next morning with them for the Alpine Club of Canada camp at Athabaska glacier. Hermann made a hurried trip with one of Walker's working parties preparing for a six-day trip by a trail-riding party to the Rainbow mountains in Tweedsmuir Park.

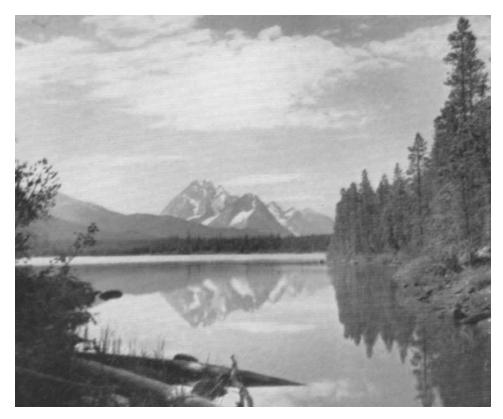
My wife, daughter and I joined this party, led by George Draney, Walker's partner. Rainbow mountains jut eastward from the main chain of the Coast mountains, but, though 7000-8000 feet



Mountains West Of Noch River From Nooklikonnik Pass. Photo Mrs. Don Munday



Noch River Valley. *Photo Don Munday*Typical of deep glacial valleys in Bella Coola section



Mt. Talchako And Vista Lake. Photo Edith P. Munday



Central Mass Of Mt. Saugstad From Bastille Mountian. Photo Don Munday

high are sub-alpine; valleys are relatively broad and shallow, and fairly moderate open slopes are fine for riding. Flowers were glorious. When sun shone (not often) rock exposures revealed their volcanic colors.

We spent two days in Mackenzie's "beautiful valley watered by a small river" (Kohasqanko creek). A botanist has described this valley as a huge volcanic crater (B. C. Mountaineer, October, 1937) but it seemed to differ in no essential from other old glacial cirques cut in the successive lava flows which extend for 20 miles or more.

Phyl returned twice to the Rainbow mountains and in clear weather enjoyed distant, but correspondingly comprehensive, views of jagged peaks of the Coast mountains.

Edith and I spent two nights at Walker's cabin at 4700 feet on Caribou mountain in the angle of Talchako and Atnarko rivers. This is the northern end of the range which culminates 30 miles to the south in Monarch mountain, 11,714 feet. We climbed a summit about 7750 feet and gained a splendid panorama across the Talchako trench; some of the mountains facing us rise 9000 feet above the river. We saw Monarch and part of the 15-mile long Talchako glacier. (See "First Ascent of Mt. Monarch," by Henry S. Hall, *C. A. J.* 1936). We now understood why Henry enthused over the view from this direction.

Hamilton Laing, the naturalist who accompanied the Mt. Logan expedition, and his assistant Charles Guiget, were collecting around the Caribou cabin for the National Museum, Ottawa, and we enjoyed their company, but somewhat doubtfully passed on to them information of birds and beasts we had sighted.

About a week later Edith and I came back to the cabin with Walter Ratcliff and a pack horse. With the lure of seeing a great waterfall, which was very little known, Walker had tempted us into joining Walter on a trail-making trip to the falls and up the valley they drained. Prior to this, through courtesy of Leyland Scott and other fishermen from San Francisco, and also the courtesy of Messrs. Walker and Draney their outfitters, I had gone up Atnarko river and climbed within sight of the falls. Reputed to be 830 feet high, they look more. We now crossed through the range between Atnarko and Talchako rivers. These mountains have a quiet charm quite lacking in any spectacular aspects. A small glacier and a shapely little peak beyond the meadows of what Walker called Glacier valley made a pleasing view but we were disappointed to find the valley bottom one long marsh

Here we started chopping a tortuous trail through jack pine forest to the falls which fall directly from the outlet of Turner lake. Many attempts to reach the lake with horses had been stopped by windfalls, but Walter had trapped through here twelve years before, and knew a better course.

The falls more or less drop over the side of a gorge which gashes the granite plateau so abruptly that in most places one may stand on the very edge of the abyss and peer down naked cliffs into the misty depths. It is a wild and impressive sight. Bella Coola residents sometimes express fear that collapse of the edge of the shelf may suddenly empty the seven-mile long lake. We thought this unlikely.

We cut trail for several miles beyond the upper end of Turner lake to "Vista" lake which revealed a glorious view of Mt. Talchako to S.W. By this time we had discovered the valley to be a fine example of the "through" valleys such as Dr. Dolmage found near Chilko lake (Geol. Surv. Summary Report, 1924, Part A, p. 61) The valley floor was about 3500 feet, and one to two miles wide, having been cut right through the range, evidently by a glacier emerging from the Coast mountains when a mountain ice-cap, as distinguished from the continental ice-sheet, occupied the Coast mountains.

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Edith and I carried ice axes in hope of snatching time to climb a summit, but trail making did not permit this before we had to start back. We were out thirteen days.

By a few hours we missed meeting Major F. V. Longstaff and Walter Feuz in Whistler pass. They had come up from Tweedsmuir Lodge (formerly Stuie Lodge), but weather broke this night and probably much marred their views along Talchako valley. Fresh grizzly tracks preceded us down the steep mountainside to the Lodge. Local people have little liking for travelling without a rifle.

A few days later we were welcomed back on board *S. S. Cardena*, and so enjoyed ourselves that we regretted when the homeward cruise along the mountainous coast ended in Vancouver. Before this, Henry had wired us plans for returning to Mt. Saugstad in 1939. If the Bella Coola mountains are notably hard to reach, they are at least one of the very splendid sections of the Coast mountains.

49

THE COLUMBIA ICEFIELDS CAMP

By E. R. Gibson

As each succeeding camp of the Alpine Club of Canada passes into history one can look back with the feeling of satisfaction—"something attempted, something done" and another chapter written in the story of Canadian mountaineering.

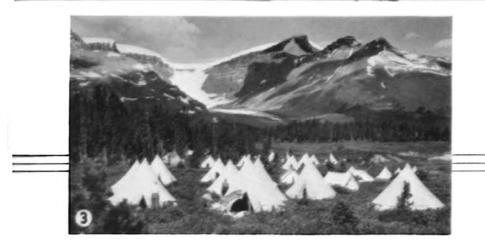
This year it was essentially a "snow and ice" camp, and it was unique in that it was the first club camp at which a real high altitude camp was established and maintained for the full two weeks. An average of twelve climbers at a time were accommodated there, and all those who spent a night or two on the icefield gained a real insight into the difficulties inherent in maintaining a camp of this nature. During the entire period of camp we enjoyed fine weather, though for most of the second week the distant views were spoilt by the presence of much smoke from forest fires, which seem to be an unavoidable concomitant of lengthy periods without rain. Another unfortunate result of the prolonged fine spell was the very poor ski-ing conditions which resulted on the upper snowfields. In this respect it was in complete contrast to the conditions obtaining in 1937, when Dr. Hendricks, the two Bouchers and the writer enjoyed almost perfect ski-ing due to fresh snowfalls at frequent intervals. However some of those who were up at High Camp during the first week did get some pretty fair skiing on Snow Dome, and even during the second week skis were taken to about 11,500 feet on North Twin by Cranmer and were used by him to good advantage on the descent.

The establishment and maintenance of a high camp entail transportation problems and these were solved by a combination of back-packing and horse transport. Ralph Rink had among his horses a veteran climber who rejoiced in the name "Spinach"! No, gentle reader, he was not named after Popeye's favorite vegetable, but after Epin-ards, a famous French race horse which won the Derby some years ago. Spinach was a veteran "iceman" for he had already made a five-mile long crossing of the Saskatchewan glacier. We got him rough-shod with ice calks, the equine equivalent of crampons, and he made several trips both during construction and during camp up the first 3½ miles of the Athabaska glacier with 100-lb. loads. His surefootedness and unconcern at the rough going were a lesson to us—mere bipeds that we are. He could not of course tackle the three ice-falls, and from here on "Shank's pony" had to be substituted. When the time came to dismantle High Camp, we constructed a sledge, using two pairs of skis with a superstructure of old club alpenstocks secured by square lashings and crossbraced. On this makeshift contraption we piled the four tents, air mattresses, cook-stove, etc., and in addition all our own personal kit. We used ropes to pull and check the sled by, and we managed to get it down the true left side of the glacier to within 50 yards of the foot of the lower ice-fall, where Spinach and a work-party led by Henry Hall met us. In coming down this way we had to run the gauntlet of ice falling from the cliffs of Snow Dome on our left, but Christian considered we were justified in taking the risk, as we could at any time have left the sled and run to safety in the middle of the glacier. Just twenty minutes after we had gone by a considerable amount of ice did come down and covered our tracks in one or two places.

Living on a snowfield was a novel and most interesting experience to most of our members. The problems of cooking, sleeping and washing required some rather drastic re-adjustment of one's usual habits. The absence of any water makes washing an almost unheard of luxury: this is somewhat of a trial to the fastidious, but a boon] to the lazy! There were many amusing incidents. On one occasion one of the men had his plate handed back to him by one of the ladies and was told to go and wash it again in the snow—he meekly complied. The man in question was Dr. Conant,



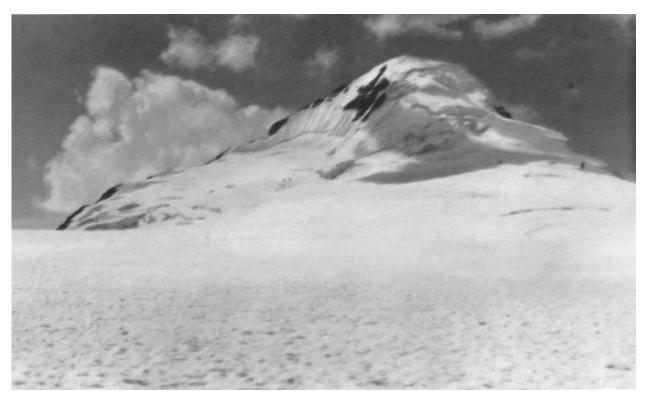




(1) High Camp. Photo A.W. Kramer

(2) At Foot Of Third Icefall On Way To High Camp. Photo A.W. Kramer

(3) Main Camp. Left To Right, Snow Dome, Dome Glacier, Kitchener, "K2". Photo G. Morris Taylor



Mount Columbia From The South. *Photo A.W. Kramer*Left hand ridge was the route used



Summit Of Athabasca. *Photo Edwin W. Mills*Note Figures On Summit.

President of Harvard, who related the incident with much glee. On another occasion the gasoline stove burst into flames and nearly set fire to the cook tent: at other times it became temperamental, and required the united efforts of all the rope-leaders to coax it back to life. Just as soon as the sun went down below the horizon it started to freeze, and it was a case of "early to bed and early to rise," more particularly as reveille for the Columbia climb was at 1.30 a.m.

As none of the Columbia icefield peaks, with the sole exception of Castleguard, had been climbed by ladies, this was an added incentive. During the first week Columbia and North Twin were both climbed by ladies and during the second week South Twin also had that honor conferred on it. Snow Dome and "Andromeda" were also climbed from High Camp.

Another unique feature of this year's camp was the close proximity of the Jasper-Lake Louise road, which was officially opened this summer as far as the Athabaska glacier. By placing Camp about three-quarters of a mile beyond the barrier on the road we enjoyed absolute privacy and at the same time all the advantages of being able to drive a car right into camp. The presence of the new road opened up a lot of new country and made it readily accessible. Trips were made into Jasper and up to Mt. Edith Cavell, where the east ridge route was climbed by several ropes. An unsuccessful attempt was made on Kerkeslin, where we were foiled by bad weather. Cars were also used to go down to meet parties returning from High Camp, and trips were made over Sunwapta pass and on down the as yet uncompleted portion of the road as far as Panther falls. which will in the future be one of the show places of the new highway. Parties going over to the Saskatchewan glacier fly camp were also taken by car along the first few miles of their route. This fly camp gave access to the icefields by another very beautiful route via the full length of the Saskatchewan glacier, and climbs of Castleguard and Terrace were made from here. It proved to be rather a difficult camp to find in the dark, as one party of veterans found, who had made too late a start from the main camp. They finally resigned themselves to a night under the stars, no very great hardship, as they had their sleeping bags with them and the night was fine.

From main camp itself climbs were made on both sides of the valley and a favorite view point was the south slope of Wilcox peak. From here a truly magnificent panorama of huge glaciers, ice-falls and precipitous cliffs, all the way from Athabaska to Stutfield, could be obtained.

Athabaska, 11,452 feet, was the most popular climb from main camp and had an average of two ropes a day on it. Kitchener was attempted by its east ridge, but a very difficult break in this ridge stopped the party at 11,000 feet. Smaller outlying peaks off Kitchener, "K2," Snow Dome, "D2" and Athabaska, "A2" and "A3" were climbed, all being first ascents. Two ropes climbed Nigel, 10,535 feet, and found an extensive bed of fossil clam shells on it. A slightly smaller peak to the south of Nigel, unclimbed and unnamed, was ascended after an unsuccessful first attempt by a manless party.

The tea tent as usual proved to be a great attraction and the photographs exhibited in the competition were well up to their usual high standard. The camp fire programmes were well varied and both interesting, amusing and instructive. We had no padre in camp this year, but the service was conducted by an imposing array of "amateur" clergy, Mr. Sykes officiating as Bishop, Mr. Read as Vicar and the writer as Curate, to whose lot it fell to give the address. One could not have wished for a more beautiful outdoor cathedral in which to worship the Lord of Heaven and Earth.

The Columbia icefields camp will be a very happy memory to all who attended it, and we look forward to the completion of the Jasper-Lake Louise highway in the very near future, and to the possibilities that will thereby be opened up for new Club camps within one or two days march of the new road.

GLIMPSES OF THE CAUCASUS

By Gustave A. Gambs

The Caucasus extends from the peninsula of Taman where the waters of the Sea of Azov and the Black Sea meet to the peninsula of Apsheron which projects into the Caspian Sea. The system shows a general direction from northwest to southeast and it measures along the line of its highest peaks 800 miles. The width, including foothills, varies from 60 to 120 miles. The glaciers of the Caucasus exceed in vastness those of the Alps, but lakes are wanting. The reason for the lack of glacial lakes may be traced to geological structures rather than to the action of glaciers. Plant life on the moraines in the Caucasus indicates that the movement of the glaciers for many centuries has followed a trend similar to the one observed in the Alps.

Timber lines as well as snow limits in such a vast system vary greatly and depend on location and on climatic, geological and cultural conditions. The latter are of great importance considering the activities of nomadic tribes which in the course of centuries have been tearing down headwaters rather than preserving them. Nearly every gorge in the Caucasus holds a shepherd clan and the tendencies of these hordes always have been to push higher and higher to the remote recesses of mountain wilderness to retain their liberty and to escape civilization.

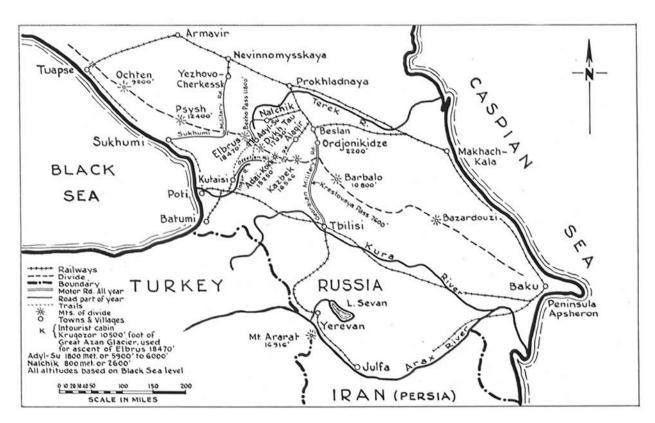
The average height of timber lines may be set at 8000 feet and the snow line runs between 10,000 and 11,000 feet. The highest peaks with their snow and icefields, séracs, ice-falls and hanging glaciers are found in the centre of the range. The west summit of the twin peaks of Elbrus is 18,470 feet high, exceeding his mate by 100 feet. Then follow Dykh-tau 17,030 feet, Shkharatau 17,006 feet and at least five other peaks between 16,000 and 17,000 feet. Among these the best known mountain is Kazbek 16,546 feet. The distance, as the crow flies, between Elbrus and Kazbek is about a hundred miles. The ridge between the two giants does not drop below the snow line and has often been called the titanic barrier of the Caucasus. On the south slope fifty-seven large sized glaciers and 350 hanging glaciers have been counted. The largest of these glaciers is Leksyr, in Svanetia, which is eight and a half miles long. The glaciers of the northern watershed have been awaiting survey to this date. Their number, length and width exceed those of the southern slope. The Bezenghi-Ulli-Chiran glacier is nearly twelve miles long. The Dykh-Su and the Karaugom measure more than nine miles each. The last named stretches far into the heart of the pine forested mountains. Thirteen immense glaciers have their source on the slopes of Elbrus.

Except for the railway line of 125 miles from Armavir to Tuapse over the northwestern foothills of the Caucasus there is no other rail connection across the barrier from the Don-Volga basin to the south. There is only one road open for all-year service, namely the motor road leading from Vladikavkas or Ordjonikidze (2225 ft.) along the east slopes of Kazbek, over Krestovi pass (7600 ft.) to the city of Tiflis or Tbilisi (1475 ft.). Its name is the Georgian Military Road. The name Vladikavkas means "Gateway to the Caucasus." Tiflis has always been the great trading centre of many and various Caucasian tribes and it is the parting point of the routes to Turkey and to Persia. Two other routes established connection between the north and the south; one crosses the divide to the west of Elbrus and is called the Sukhumi Military Road with the Black Sea terminus Sukhumi. The other is the Ossetian Military Road, it passes to the west of Kazbek, skirts the Tsei glacier and Svanetia and terminates at Kutaisi, which point has rail connection with Sukhumi, Batumi and Tiflis.

Intourist is the Soviet travel agency. Under its auspices all travel of foreign tourists through Russia is conducted. The best hotels of scrupulous cleanliness are available for this purpose. At the docks and at the stations the foreigner is met by guides who speak his language. In each hotel an Intourist office, with staff, is installed and there is no end to the services rendered by its personnel. Planning of meals and outings, arranging for boat rides, swims at the beaches, shows and movies, suggesting and even leading of trail trips through the mountains appear to fall within the scope of this service.

My trip was so arranged by the Intourist in New York as to approach the Caucasus from the Black Sea. On August 26, 1938, I boarded the modern Soviet steamer *Svanetia* plying between Istanbul and Odessa. One day was devoted to Odessa, a beautiful spot, important harbor, industrial centre and a first class health resort. A twenty-four hour sea trip took me to Yalta on the Crimean coast. A prevalance of slender cypress, cedar and Lombardy poplar lends a strange charm to the landscape. The palaces and villas of the former rulers have been transformed into sanatoriums for the workers, and their gardens display the most exquisite rivalry of oleanders, cannas, hydrangeas and trumpet creepers. Not far from Yalta, at the foot of the peak Al-Petri, with its meteorological station, 4000 feet above sea level, is the Tatar settlement of Alupka and its collective farm, excelling in vineyards that yield the famous Yalta wine.

The boat trip from Yalta to Batumi, the foremost southern Russian harbor on the Black Sea, took two days and three nights. Five calls were made. Every stop kept on swelling the list of passengers. Families were rushing home in droves from their sea shore vacations in spite of an intense tropical heat. Between the third port, Gagri, and the fourth, Sukhumi, the course of the boat approached the coastal range of the Caucasus revealing on its slopes mighty forests of deciduous trees. There seemed to be a marked absence of conifers. In the background the snowy divide of the central Caucasus appeared, turning crimson while illuminated by the setting sun.



Before we leave the shores of the Black Sea I wish to mention that one of the aims of the Soviet is to popularize hygiene by the use of natural means. The result is that the sand beaches of the Black Sea from Odessa to Batumi are littered with bronzed bodies of both sexes and of all ages. I was inclined to associate this display of humanity with the ancient cult of the sun-worshippers of Asia Minor and Persia.

I was glad to leave the overcrowded steamer early on the third day for Batumi. The famous botanical garden, ranking second in the world, and the vast tea plantations deserve a visit. The tea shrubs are kept two feet high and their tender leaves are picked all year round. The production of this region is said to supply all Russia with tea. A night train took me to Tiflis. Since 1920 this city has been the capital of the Transcaucasian Federation which includes the three republics of Georgia, Azerbaijan and Armenia with their respective capitals Tiflis, Baku and Erivan. Tiflis, as a political centre, has been growing rapidly and counts now 466,000 inhabitants. The city is located along the shores of the river Kura, in a regular mountain setting. It is divided into two sections, the old Asiatic town with its quaint, narrow and crooked lanes and the modern quarter with its broad boulevards. It is known for its textiles, silks, leather goods, silverware, swords, guns, various institutions of learning and warm sulphur springs. The population is a picturesque mixture, the tribal differences are notable in dress and manner. The atmosphere of the Orient still prevails, giving the city a touch of charm. I left Tiflis with regret.

The trip across the Caucasus from Tiflis to Vladikavkas, 135 miles long takes twelve hours by motor buses of Russian manufacture. The southern slopes of the ranges are gentle, the five mile crest line is almost level and stays within timber line while the northern slopes are abrupt. At the village Kazbek, ninety miles from Tiflis, a stop is made which gives sufficient time to admire the two snow peaks which hem in the town. To the west is Kazbek, 16,546 feet, to the east Mt. Shat, 14,760 feet. The road winds from here through narrow, deep-cut gorges toward Vladikavkas. In this city I visited an interesting mosque, with two elaborate minarets, on the shore of the swift glacier river Terek. The building was under restoration to be transformed into a national museum.

The following day, September 7, I left by rail for Nalchic. To my sorrow the dry spell that had been favoring me so far was coming to an end. I felt with apprehension that seasonal rainy weather with low clouds was on the way. Nalchic is the terminus of a railroad branching off to the left from the Rostov line at a point about 100 miles west of Vladikavkas. Until 1922 it was a Kabardian "aul" or hamlet. Then it became the centre of the Kabardino-Balkarian Autonomous Province and has been converted into a modern, attractive city. Under its leadership the whole length of the valley of the river Baksan and its tributaries, clear to the foot of the Elbrus massif, shows the effect of a wholesome agrarian, industrial and educational development. By motor car I was taken over the eighty-five mile scenic highway in a southwest direction to the In tourist Hotel Adyl-Su, located in a charming glade, among pine trees, 6000 feet above sea level, close to the shore of the wild glacier torrent Baksan. A short distance further on is the Balkarian village of Tegenekli. Close by are a few Alpine camps, attracting vacationalists from all parts of Russia. They come to climb the peaks of the Elbrus massif or they cross the central barrier to explore the mountains of Svanetia. Glacier torrents from all sides rush through narrow gorges to meet the upper Baksan close to Tegenekli. The whole region has been made accessible in the last ten years by the building of trails, camps, cabins or shelters as needs demand. Students and professionals use these facilities eagerly, and it was easy for me to make their acquaintance and join them in their rambles over trails, moraines and glaciers. In spite of cloud-capped peaks and an abundance of showers, I reached an altitude of 12,000 feet on the south slopes of Elbrus and close to 11,000

feet on the Becho pass trail leading to Svanetia. The height of this pass is about 11,300 feet or 300 feet above its snow line. While on the Becho pass trail we were favored by shifting clouds. The trail has been built, apparently for public purposes, along the crest of a long, steep and winding moraine, and afforded wonderful views into a vast cirque crowned by nineteen peaks of varied heights, all above 14,000 feet. These sentinels of the divide are holding in their embrace an equal number of hanging glaciers. The lower reaches of the cirque harbor nine glaciers converging to the main icefield which forms the bottom of the amphitheatre. The floor is covered with debris and releases the glacier stream that tumbles through the famous Yusenghi gorge and flows into the Baksan close to Tegenekli.

Elbrus, being the highest mountain in the Caucasus and easy of ascent due to its gentle snow slopes, is the most popular mountain of the whole system. Over a thousand visitors per annum reach the summit. The inn "Krugosor" at 10,500 feet altitude built on a promontory on the southern slope of Elbrus at the foot of the large Azau glacier, is able to accommodate thirty tourists. At an altitude of 14,000 feet is located the "Shelter of the Eleven," erected on a level spot of lava outcrop. It has a keeper and if necessary a few days may be spent here. At 17,800 feet altitude, in the saddle between the two summits, there has been a good-sized shelter without service since 1933. Usually the night is passed here prior to climbing the twin peaks. There is under construction at present a track for tractor locomotion from Tegenekli to the "Shelter of the Eleven." At this lofty place a spacious inn is to be built. This structure will afford proper acclimatization and a thorough exploration of these high, vast and icy regions.

According to schedule I returned to Nalchic the way I had come. By rail I soon entered the North Caucasian city of Rostov-on-Don situated on the high banks of the Don river thirty miles above the Sea of Azov. Here the tourist is shown the largest state farms of the Soviet Union. The next stop was at the Ukrainian industrial city of Kharkov with 635,000 inhabitants. Heavy cold rains fell on the 15th of September, marking the approach of autumn. I was surprised at the sight of the male population, turning out suddenly in warm overcoats, while up to the previous day the typical Russian white-belted blouse had been worn. My itinerary in Russia came to an end at the city of Kiev, capital of the Ukraine, with over 600,000 inhabitants, situated on the right bank of the river Dnieper, a charming forest city, surrounded by a wealth of deciduous and coniferous woods. The place holds untold interest for the historian. Space permits me to mention only the tall bronze statue of Vladimir I, surnamed "the Great" or Saint Vladimir, overlooking the Dnieper. He held court in Kiev at the end of the 10th century; extended the Russian dominions; promoted Christianity; and died in the year 1015. The monument was erected in 1853 and has not been disturbed. The once mighty Kiev Monastery, famous for its spacious catacombs, has been transformed into an historical museum. The mosaics and frescos of the Cathedral of St. Sophia, dating from the year 1017, are undergoing at present elaborate works of restoration, intrusted by the Soviet to the best obtainable Russian artists.

On September 23, I boarded at Kiev the Baku-Rostov-Warsaw express and crossed the Russo-Polish border at Stepetovka after having covered on Russian boats and by rail about 3000 miles in twenty-eight days. Transportation moved according to schedule and all facilities conducted by Intourist were beyond reproach.

57

SKIS OVER BALU PASS

By C. Abell

Frequently had Charlie Hopkins and I harkened to the oldtimers relate how, in the days of long ago, Swiss guides, then stationed at Glacier, had ridden the snows of Balu pass on their flying skis. The thought of such a trip intrigued us and, while there was no available record of any recent traverse of this pass on skis, we deemed it feasible and worth an attempt. Since practically the entire route that we would take lies within the avalanche zone, cold weather was essential to the safe undertaking of the trip.

The ideal day finally dawned on March 5 with the weather clear and the temperature at 15° below zero; so at 8.30 a.m. we buckled on our skis, shouldered our packs and commenced the long trek. We took our course to the westward, along the Cave road toward Cougar valley and, for the first mile and a half, the snow conditions were excellent. From there on, the territory became more open, the grade increased sharply and we encountered a crust on the snow through which the skis broke readily but were extracted with difficulty. Increased traction was necessary on account of the sharp incline but we had no skins for the skis. Charlie, however, had a 5-30 wax which we now applied and found to be satisfactory. For the next three hours we toiled slowly upward, every resource at our command strained to the utmost, traversing in this time less than two miles. Perspiring, weary and hungry, we had, at 1 p.m. reached a point slightly above the Nakimu Caves and decided to rest a bit and take some refreshment.

The lunch speedily revived our flagging spirits and, when the sun broke forth in all its splendor, our recuperation was complete. The mortal never lived who could remain downcast or indifferent when in the midst of such magnificent scenery as that which now met our eyes on every side. The bright sunshine had transformed countless thousands of snow-clad trees into the bejeweled inhabitants of a fairyland, while the surrounding mountains formed the silent sentinels who eternally guarded them. We took some photographs from this point and, at 1.30 p.m., fully rested and filled with a new determination, we resumed our climb.

The going continued heavy and our progress was slow, frequent stops being made to rest and admire the scenery. Finally, at 3.40 p.m. we wearily breasted the summit and gazed down into Bear creek valley, surprising a brace of blue grouse which zoomed up from almost beneath our feet and hastily roared away. A wind, bitterly cold, blew across the summit as, crouched behind a stunted pine, we nursed a faltering flame into life and melted a few cups of snow. After quenching our thirst and eating a morsel of lunch, we proceeded to remove the black magic from our skis, a rather strenuous job. A final photograph or two and we mounted our hickory horses and nosed over the ridge into Bear creek valley at 4.45 p.m., still nine long miles from home.

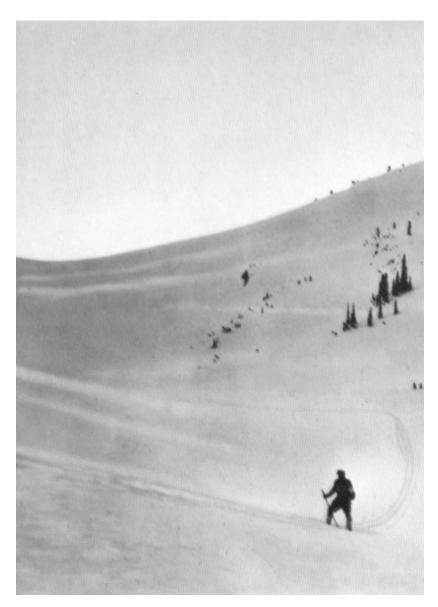
A new problem now presented itself for, with sun and shadow absent, one could distinguish none of the contours of the territory that lay below: an unfathomable sea of white stretched out, indefinite and ghostly. It became simply a case of "crouch low and trust to luck." Holding well to the southern rim, we sped downward, over a course unbelievably smooth, for at least half a mile. What a skiers' paradise that valley was, the bottom slide-filled and level for two miles.

A thrilling series of runs, two spills for Charlie and we were flitting through the timber at the lower end of the valley. Here it was Charlie's turn to chuckle for I upended twice while dodging

¹ also C.A.J., Vol. XIX, 1930, p. 161, (Ed.).



Cougar Valley From Below Nakimu Caves.



Balu Pass From Bear Creek. Photo C. Abell

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trees in the dim light. It was exactly 6 p.m. when we emerged directly behind the old C.P.R. roundhouse at Rogers pass. From this point the old railway grade provided a splendid runway and gratifying progress resulted. At 7.30 p.m. we stood on Avalanche, directly above Glacier and gazed down at the lights of home as they twinkled below us. Down the last lap we sped; another spill for each of us, and the trip was over.

"Skis Over Balu;" the thought still intrigues us and some day, if the fates permit, we shall again traverse that stairway of the gods.

CANNING SUNSHINE IN THE CANADIAN ROCKIES

By Christine L. Reid

It all came about most unexpectedly, for although Benno and I had promised ourselves that some day we would make a ski film together, two seasons had already slipped away before the great opportunity presented itself.

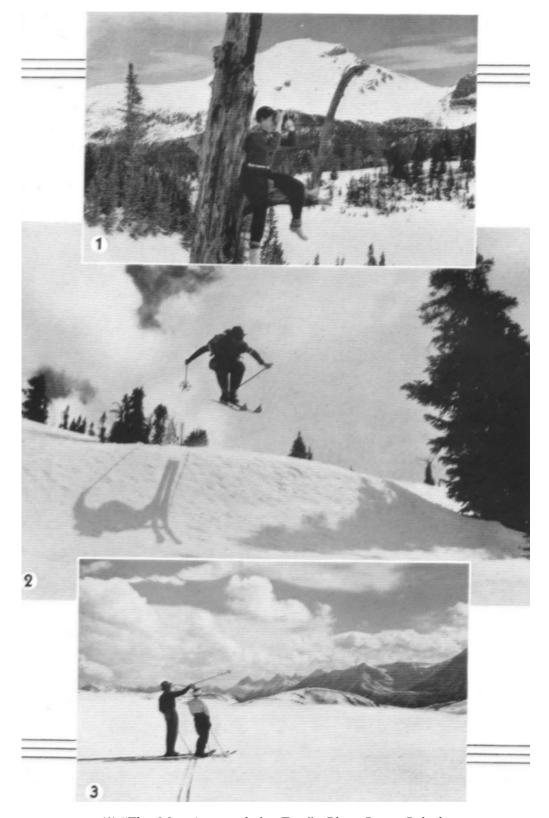
Now as we stand on the rear platform of the C.P.R. observation car and watch the serrated skyline of steel blue and white mountain peaks advancing to meet us across that sweeping expanse of flat prairie country, which lies betwixt the Great Lakes and the Canadian Rockies, our dream is about to become a reality. It is already the second week in May, and here in the wheat country the farmers are turning up long brown furrows of fresh smelling earth, and now and again a field of pale green shoots whirls past the car window. While neither of us dare to express our fears aloud, with each rhythmic rail clink from the revolving wheels the ever-present question mills round and round in our heads— "Shall we find snow enough"?

It was Norman Knight and Ralph Harvey who put our fears to rest when they greeted us at Banff with the good news that we would still find seven feet of snow up at Sunshine Ski Lodge. Inspired by these good tidings we hastened to make the arrangements necessary for an early departure the following morning, and finally crawled up to bed, after a hasty session over what should be left behind and what we could back-pack with us. We counted ourselves extremely fortunate in having for our filming companions and assistants the two capable Edwards brothers, "Chess" and "Rupe," both ardent Banff skiers, that effervescingly droll and enthusiastic skier, Norman Knight, likewise of Banff, and Peter Vajda, of Budapest, Hungary, a former member of the University of Zurich ski team.

Promptly next morning at the appointed hour, "Chess" and "Rupe," our "Chief Provisioners," appeared in the lobby of the Mount Royal Hotel with bulging rucksacks and a large assortment of paper packages (some of them obviously loaves of bread and cartons of eggs) which were eventually divided among six large rucksacks. With the arrival of Peter and Norman the party was complete —and after some additional juggling with boxes of spare film and other camera equipment, six pairs of skis, six pairs of poles, six rucksacks and their six owners were successfully stowed in their respective places in Pat Brewster's dignified looking old Buick—and the expedition was underway at last!

Sunshine Ski Lodge is located some fifteen miles southwest of Banff in a beautiful Alpine valley situated at an altitude of 7800 feet. During the winter season a snowmobile transports skiers to within a distance of three miles or so of the Lodge, but in the spring, when the snow line has retreated from the banks of Healy creek to a point approximately half-way up to timber line, one may travel the first six miles by auto, the next six on horseback, and the last three on foot, or on skis. Our auto took us the first six miles and deposited us with duffle at Jim Brewster's corral.

As it was to be Benno's first horseback ride it was not without some apprehension on his part that he untied his steed and prepared to mount. At this point, Peter, who had just been initiated on a previous trip, and who was therefore an authority on the management of Western horses, said in encouraging tones "You do like I do, Benno, and everything will be all right." But alas for poor Peter, as we rode single file, a company of modern ski lancers, over the bridge and past the Forest Ranger's cabin on Healy creek—Peter's horse, mindful of a good feed he had had there on a previous visit, headed determinedly for the ranger's corral. In spite of heroic efforts on Peter's



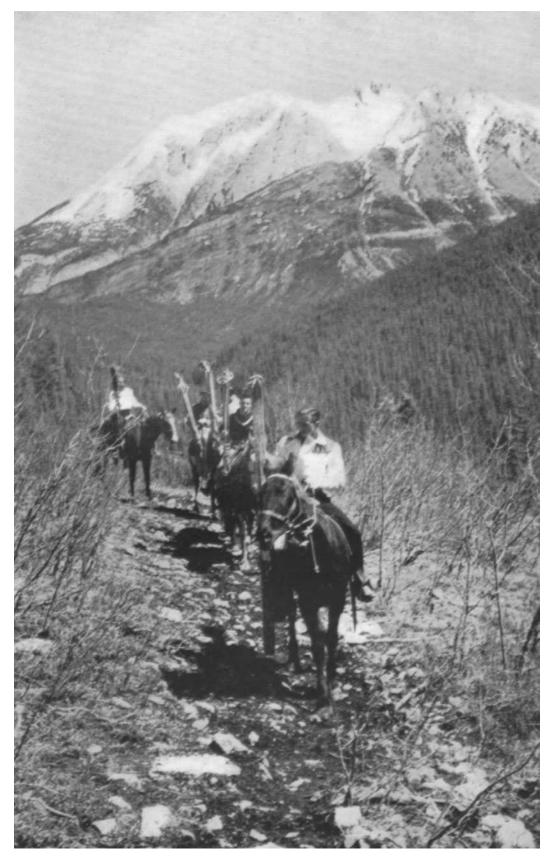
(1) "That Most Accomodating Tree". Photo Benno Rybizka

- (2) "Benno Could Soar With Enchanting Ease". Photo Christine L. Reid
- (3) "We Eagerly Explored Our New Domain". Photo Christine L. Reid

part to "steer" him out again, he refused to be budged, and just before we passed out of earshot, I heard Peter exclaim in a tone of sad bewilderment, "I sink this animal he is very fonny; he makes what he wants to do"!

The trail led along the bank of the creek for some distance, and after climbing slowly through a mixed forest of evergreen and hardwoods we soon emerged on a long sloping traverse that overlooks Brewster creek valley. Beyond us to the southeast stretched a range of peaks, snow-covered and sparkling bright in the clear morning sunlight. In contrast to the soft green of the spring foliage about us, they looked intensely white against the deep blue of the Canadian sky. With the horses moving at a steady walking gait we could drink in the slowly changing scene with undisturbed content. Then quite unexpectedly somebody at the rear of the line commenced to sing in a deep masculine voice "Heigho—Heigho—It's off to film we go—" and the rest of us joined in with the chorus with such enthusiastic vigor that the notes went ringing far down the valley, and the distant cliffs picked up the melody and sent back an echo that rejoiced our souls. It was good to be hitting the trail to the ski slopes once more!

Along the path the mountain wild flowers were already in bloom, and once while crossing a vast rock slide left by some previous avalanche, we saw a big gray mountain ram quietly observing our caravan from his lookout post on an overhanging ledge. Another time a young bull moose poked his funny ugly brown nose through the branches of a fallen tree and took a long look at us. Then evidently feeling a little shy at our approach, he withdrew it hastily. At Healy creek the horses splashed through the ford and up the opposite bank where we dismounted, loosened the girths, and tethered them to trees. It was three o'clock and all of us were hungry. Norman quickly kindled a small camp fire and seated on stumps or skis in a semi-circle around it, we devoured large sandwiches which we had found in some of those mysterious paper packages. Before the meal had been completed the wrangler rode into camp leading a gray on whose broad back the main bulk of our dunnage had been packed. Now we must back-pack it ourselves, and with three miles to go before we would reach the Lodge, we did not linger long over our meal. As fast as each one finished, he gathered up his duffle and skis and set off up the trail. Wet mud and melting snow made travelling difficult at first, but poor snow soon gave way to a more skiable variety, and switchbacking our way up through tall timber, we found ourselves gaining altitude rapidly. The trail follows a brook bed for the better part of the way, and the snow which now covered it was several feet deep so that there was little danger of our breaking through. Occasionally a piece of crust would slump in with a soft crunching sound that warned us to be on the lookout, or we might get a wetting. Sealskins were of great assistance as we pushed our way up through the rock passage to the upper meadows. Here all about us were small, snow-laden evergreens that tipped their burden of cold white crystals down our necks if we brushed their branches ever so lightly with our caps in passing. Just as the late afternoon shadows began to stretch their long purple fingers across the high valley slopes, we rounded the last bend and saw before us a snug log cabin set in a smooth white Alpine meadow. Its stout brown logs, strong gable roof, and gay red window frames and sashes gave it a most hospitable appearance, but best of all was that thread of blue wood smoke which came trailing out of the diminutive chimney, and lent a pungent tang to the crisp evening air. It was "Rupe" and "Chess" who had thought of this last splendid touch, and who had sprinted ahead to start the fire and put on the kettle to boil. No welcome could have been more highly appreciated than this, and as we sipped hot tea and toasted our toes before the fire roaring in the big drum stove, Benno and I were quite certain that no nicer place ever existed than Sunshine Ski Lodge.



Ski Lancers. Cut Appalachia Christine L. Reid

With tea over we felt completely refreshed, and Norman and Peter did us the honor of a conducted tour of our new residence. To find such a well-equipped camp at such a high altitude was indeed a surprise. Here were comfortable chairs and beds, plenty of warm, woolly Hudson Bay blankets for the cold nights, hot and cold running water, inside toilets, two showers, an excellent cook stove, an electric light plant, and accommodation for over forty skiers. We understood now why Karl Ringer, Captain of the University of Munich ski team had waxed so enthusiastic in his description of the place.

Next morning the film work began in earnest, and during the two busy weeks that followed we worked long and diligently with both still and motion picture cameras, for ours was to be a close race with time and weather.

Only two weeks in which to complete an ambitious assignment—that of producing an instruction film that would provide a critical and intelligent ski-ing public with a comprehensive exposition of correct ski-ing technique. This we hoped to achieve by means of normal and slow motion picture views of the various steps involved. We had discussed the matter very thoroughly during our three-day train trip, and had carefully outlined our plan of attack in order that no precious filming time need be wasted once we were "on location." With an international reputation as an instructor at the famous Hannes Schneider Ski School in St. Anton am Arlberg, and as a demonstrator of the first order, there fell to Benno's lot full responsibility for the demonstration work, and on my shoulders the worrisome burden of the photographical problems.

Thanks to a previous experience at ski filming in the Swiss Alps¹ when I had been without a telephoto lens, I had recently equipped myself with a Bell and Howell "Filmo," the 70 DA model with the highly coveted turret head and two lenses—the ordinary F 3.5 Taylor Hobson Cooke Cinema lens, and the more highly powered 3-inch Goerz Hypar F 3 telephoto lens. This camera is known for being the most completely waterproof model on the present day market, an item worth considering when one is engaged in snow photography. Without its case it weighs 5 lbs. and 11 ounces, and for shots exceeding eight feet in length, it is advisable to use it mounted on a tripod. Any one of seven speeds (8, 12, 16, 24, 32, 48 and 64 exposures per second) are possible with this model. To supplement the Filmo in case of some unforeseen accident, we also carried about with us a Model B Cine Kodak, of ancient vintage, but very dependable and practically foolproof. In fact, it is one of the few cine cameras I have owned which is easy and quick to load, seldom jams, and may be transported about in one's teeth in a fashion most convenient for rock climbing where the route is a bit difficult and handholds a necessity. In the Alps the professional photographers with plenty of film oftentimes strap these cameras to their legs and take pot-luck running shots of the skiers schussing the slopes ahead of them. But we, who were not rich enough in film to consider squandering our precious supply in such luxurious fashion, were obliged to content ourselves with the more dependable, but less spectacular method of allowing the photographer to hold his camera to his eye and follow the skier down the slope. Both cameras could take 100 foot reels which I considered preferable for snow photography at high altitudes, for what with mittens on and the increased risk of exposure from an excess of ultra violet rays, film shifting is, at best, an inconvenient and difficult business.

In selecting a tripod I had taken great pains to have one equipped with an adjustable pivot head, and ski pole tellers to keep the supports from sinking too deeply into the snow. Both cameras are provided with standard sized sockets for tripod mounting, but during the first day's filming the metal screw support broke off in the socket at the base of the Filmo. Thereafter I was obliged to

¹ See Appalachia, December 1936, pp. 225-233,

balance the camera on the slippery surface of the tripod head with one hand, and release the starting button with the other. The tripod, itself, is made of strong wooden joints that can be lengthened or shortened at will. It is light to carry, compact when folded, and if ample time and space are lacking, it may be set up in a hurry as a unipod.

For the motion picture work I used Eastman Panchromatic Safety film with its moderate speed of 21° Scheiner, a K2 yellow filter, and a deep lens shade of the screw-in variety to protect the film from the excessive glare radiated by a snowy landscape. Here too, as on my previous high altitude ski filming expedition, I once again discovered that I might expect very little assistance from my Weston Leicameter, the needle of which persistently points to that untabulated area beyond the 1000° mark whenever the photoelectric cell, around which the instrument is built, is exposed to an excess of ultra violet rays.

We had better success with a very inexpensive visual exposure meter of German make, commonly known as the "extinctive type," which we used principally in conjunction with our two Leica cameras, one a Model D, and the other the beautiful new Model G. The latter has a shutter speed of 1/1000 second, and is equipped with a built-in range finder which was found to be extremely valuable for catching high-speed turns and jumps at just the right moment. Our best results from the still cameras were obtained with Panatomic film, supplemented by a K2 yellow filter and adequate lens shade.

Our total film supply amounted to some 1500 feet of black and white Panchromatic Safety film, 400 feet of Eastman Kodachrome; 14 rolls of black and white Leica film of various makes; and 2 rolls with 18 exposures each, of the new Leica Kodachrome film, which we invested in by way of an experiment. Each carton containing 100 feet of motion picture film was given a number. Then as fast as each roll was exposed a brief description of the subject matter shown in each individual set of exposures on the film was written up beside this on a horizontal chart especially prepared for this purpose, together with such details as the speed, aperture, range, number of feet used, etc. All excess film was safely stored in aluminum containers, and kept with the rest of our equipment in two large Bergan rucksacks which we back-packed about with us from slope to slope.

On that first adventurous morning we eagerly explored our new domain in search of practical as well as artistic backgrounds, smooth practice slopes with correct lighting, and a variety of grades suitable for the various turns in the ski-ing curriculum. We hoped too to find a reversible slope, a natural formation highly coveted by the ski-ing photographer since it enables him to place his camera on a level with his demonstrator on the opposing slope, thereby eliminating that distortion in the angle of the grade which would be the inevitable result were the camera pointed uphill.

This we found—and much more too, in the vicinity of Sunshine Ski Lodge. There was that most accommodating tree on a protruding branch of which I spent countless precarious but contented moments filming linked stemm-bogens and Christianias; still another slope yielded a delightful series of bewitching bumps over which so agile a skier as Benno could soar with enchanting ease. Then there was the cornice, a magnificent windblown formation, with a long curving crest that reminded one of an ocean wave about to break into foam on the beach. Above its curling vertical brim Benno was poised for just an instant like some strange seabird hovering in search of its prey, then tossing a white plume to the breeze he had plummeted down over the brink leaving me breathless at the sheer beauty of the snowy spectacle.

It is such moments as these which make ski filming worthwhile. Forgotten soon are those bitter moments when the film roll jammed, the lens fogged up, or some particularly difficult shot

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was ruined through over exposure, or lost through carelessness in allowing the film to unwind just as you were about to remove it from the camera. The hot sun, the distracting glare, the corn snow that changed to a crust, these too, and a thousand other inconveniences are clean forgotten in the joy of creating "canned sunshine."

If you too are anxious to experiment, and want a good recipe for this, we suggest that you try canning your sunshine in the Canadian Rockies.

HAPPY VALLEY

(A Naturalist Looks at Lake O'Hara)

By Burt Gresham

It must be nearly fifteen years ago that as a lanky schoolboy, I first heard there were birds in the Canadian Rockies. I knew of course that there were such things as bears and goats, but from then on, I shared the view currently held by our local Natural History society which was to the effect that there are NO birds in the mountains.

Such was my childish faith, that to this day I recall the horror which greeted the heresy preached with fervor one night by a man, who, not even claiming to be an ornithologist, dared contradict the pundits and boldly asserted that he had not only seen, but had actually identified several species of the class Aves while going about his work in the mountains.

That man you now know as the editor of the Canadian Alpine Journal, but in those days he was the Natural History Society's geologist, and his address, I fancy, was his valedictory to the unregenerate group, for shortly after he left us and dwelt in the outer darkness until we heard that the fellow was actually an expert at climbing mountains.

Fifteen years passed and in 1937 I decided to rest the weary frame and mind in the mountains. I, following Mr. McCoubrey's example had either left or been chucked out of the learned society. At any rate, with the fellowship of brother outcasts we were still friends and when I sought advice on how to spend a long holiday on a short purse— he suggested and smoothed my path to Lake O'Hara's cabin.

Guilelessly he suggested that I,—a prairie bird lover should make a list of the birds and animals of the district. Trustingly, I said I would. I did, and here it is with a few remarks about the birds and animals which made exquisite O'Hara especially attractive.

It is not pretended that the list is complete. I was in a country strange to me; I could not have collected specimens for accurate identification even if I had wanted to. If I saw birds I did not identify, they did not go on the list, and while the list is based on sight records alone— (and as such of no ornithological value) I feel that it is accurate as far as it goes.

Of all the birds which were seen in the mountains surrounding the camp, none gave me such downright pleasure and thrill than my first sight of the Water Ouzel or Dipper and the flocks of Hepburn's Rosy Finch or Leucostite. Though they may be common enough in the experience of any ornithologist who has worked in the mountains, to me at any rate, these two species seemed to typify the very spirit of the mountains.

The former is the elfin spirit of the bubbling, hurrying watercourses springing from the rocks; the latter the aloof, distant, but friendly spirit of the high places.

How well each bird fits in with its chosen surroundings! The Rosy Finch, tiny but dauntless, sociable within its small group, yet not seeking the companionship of any other living thing; a brave forager on the almost barren rock slides, gleans a living through persistence and skill wherever a handful of herbage produces seed or where the cold winds benumb venturesome insects on the bare and exposed rocks.

Its restless, erratic flight is in keeping with its elusive whistlings, strangely un-birdlike as they echo against a rock face, hollow-sounding when rebounding from a damp, overhanging crag. The call has a ventriloqual sound and until the bird-watcher is able to trace it to its source, is often mystifying. The call is surprisingly loud to be produced by so small a bird.

Apparently the Rosy Finch does not descend from the heights during the summer. At any rate it was only encountered well above the timber line on Mt. Yukness and along the slopes above Lake McArthur.

I was hunting for a Cony to photograph when I first became aware of a series of elfin whistlings that seemed to come from an almost vertical rock face. I turned the field glasses upward and carefully scanned the cliff until a crick developed in the back of my neck. Nothing could be seen.

A few minutes later the same sound appeared to come from a rockfall at the base of the cliff. I crept toward it, carefully watching as I neared the place; again nothing seemed to move, yet nothing could be seen.

This hide and seek went on for more than an hour until finally I heard the sounds coming from the edge of a terrace on which I was standing. For the first time I knew that the author of the sound was a bird, for this time, as I crept near, a small feathered creature ran a few steps, hopped onto a small rock fragment and launched itself down the valley.

Later that afternoon, while resting quietly in a sun-warmed niche, I saw a flock of small birds whirl inwards over my head and apparently land on a terrace a few feet below. Creeping forward on hands and knees, I reached the edge and peered down. There, hardly twelve feet away were the birds, beautifully marked with chocolate and grey with a rosy blush suffusing the plumage. As I watched, a bird swelled its throat to give the elusive call which had tantalized me all afternoon and the mystery was dispelled. Later, I was to see them frequently whenever my path lay along the upper slopes. Apart from the peak-circling eagles, the Rosy Finches are probably the highest birds to be found near Lake O'Hara.

At the bottom of the valleys, the Dipper lives. An amazing bird, he walks through the water, flies through the air or floats like a cork through white water riffles with the same gay imperturbability.

Almost daily, at the point where Tote creek turns abruptly below the cabin, the Dipper fed, a quiet and sombre figure by comparison with the gay band of Slate Colored Juncos and Ruby Crowned Kinglets which fluttered above in the overhanging bushes.

"Let the water hurry past," the Dipper's attitude declares, "It brings all things to me. I'll just sit here and wait."

In silhouette, a tiny Sora Rail, the Dipper reminds a prairie ornithologist of a bob-tailed Catbird who has deserted his brier patch for a burbling little stream. There the resemblance ends, for the Catbird is as noisy as the Dipper is quiet.

On August 14, I saw two Dippers mating, surely a late time of year. They had been feeding several yards apart when one, the female, began a low twittering, not unlike the mating trills of the common English Sparrows. She then flew a few feet to a rock projecting from a riffle in the stream and called loudly and insistently. The male bird flew to her and fed her with some tidbit from the stream. Then he stood unconcernedly by for a few moments until a few sharp pecks from his spouse roused him to defence which grew to such vigorous reprisals from the lady that soon the two were leaping like little gamecocks at one another.

A few brisk exchanges like this and the male flew away and began feeding on another moss-covered rock, but the lady pursued him and her forgiving husband fed her several times before the actual mating took place. Throughout, the lady was the aggressor and her husband displayed a shameful lack-interest, except when defending himself.

Further back from the Dipper's haunts on Tote creek, in the bushes on the slopes, brownish red Fox Sparrows and Hermit Thrushes fed in tiny clearings on the ground. Above them on the

tree trunks, the White Breasted Nuthatches called to one another as they ran head foremost down and up the tree trunks.

Not the least of the difficulties of a prairie ornithologist in the mountains, is the tremendous height of the trees, compared with the prairie groves. It was this difficulty, partly, which prevented me from making a larger list of birds, particularly in respect to warblers and flycatchers. These two classes of birds, hard enough to identify in the field even at close range on the prairies, become an impossibility to identify when they persisted in sticking closely to the tips of the big spruce trees. Although there were several species present, I would not attempt to guess at their identity.

The Clarke Nutcrackers and Canada Jays kept close tab on all my movements, no matter where my bird watching took me and at times when they appeared to think it necessary, screamed warnings of my presence to all the furred and feathered creatures in the neighborhood.

By way of retaliation, on August 15, with the snow blanketing the meadow, I built a blind behind the cabin and set out the remains of the ham-bone and a well-dried and mouldy loaf of bread, both securely lashed to the top of a ten-foot pole and prepared to spend the afternoon in Jay and Nutcracker photography.

Within a surprisingly short time, I had a menagerie of seven Nutcrackers, twelve Jays and a score or more of Ground Squirrels—as fine a set of thieving rogues as it is possible to find in the woods.

Far from being content with feeding on the crumbs which the Jays and Nutcrackers dropped from their feasting, the Ground Squirrels would clamber up the pole and not retreat until an angry Nutcracker drove them down. Finally, a big tin can, with the bottom pierced and inverted around the pole thwarted these little robbers.

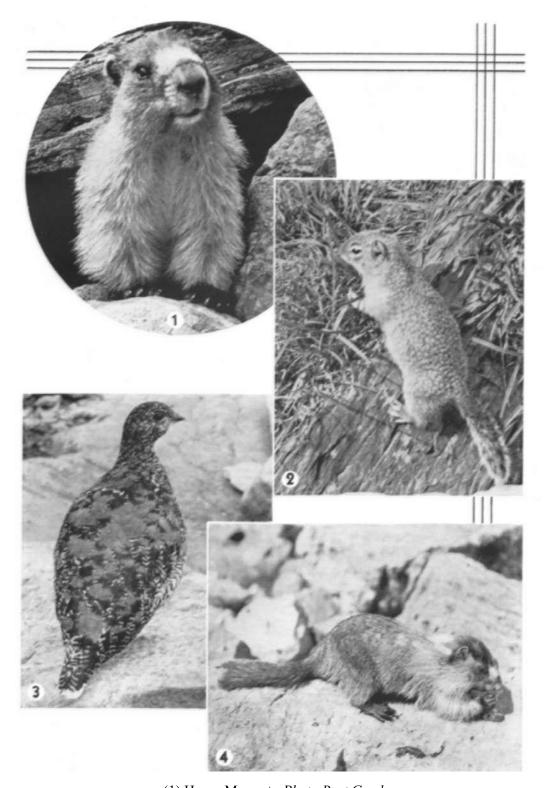
Neither the Ground Squirrels nor the Nutcrackers showed the slightest signs of fear of the Canada Jay and did not hesitate to drive them away from the food when they wished to feed themselves. So ravenous were my guests that they soon reduced the loaf, hard and dry as it was, to a mere crusty shell. To maintain their interest, I filled the hollow loaf with scrapings of the pot of hot curry on which I had lunched. The birds welcomed the spicy rice and fed until their gullets bulged with it. While they fought and quarreled over the food, the cameras clicked unnoticed.

During the orgy, a Sharp-Shinned Hawk came flapping and soaring over the meadow, but the Nutcrackers, two or three at a time, took after him and harried the hawk so that he was forced to dive for the cover of the trees to shake off his tormentors. Three times that afternoon he tried and failed to cross the meadow and the last I saw of him he was sitting lonely on the tip of a dead branch of a tree on the eastern side of the creek.

If the prairie has more birds than the mountains, then it seems equally certain that the O'Hara country is richer in medium and large sized mammals. At any rate, they are friendlier than the small beasts of the plains.

In fact, a little more timidity on the part of the Ground Squirrels, the Porcupines and even, upon occasions, the Hoary Marmots might add to their charm. Of the three pests, lovable as they are on first meeting, the worst are the red-nosed Columbian Ground Squirrels. These camp busy-bodies are always prying into anything and everything that excited their curiosity. They came into the cabin fearlessly if the door was left ajar and in a few minutes would be up on the table to see what was left for them to eat. The Porkies, though fewer in number, did more damage, chewing up anything that was even remotely salty.

After they became used to the idea of being photographed, the Hoary Marmots became quite confiding. One became so affectionate, after receiving a bounty of bread and salt that he



(1) Hoary Marmot. *Photo Burt Gresham*(2) Columbian Ground Squirrel. *Photo Burt Gresham*

- (3) White Tailed Ptarmigan. Photo Burt Gresham
 - (4) Hoary Marmot. Photo Burt Gresham



Canada Jays. Photo Burt Gresham



Clarke Nutcracker. Photo Burt Gresham

would nibble inquisitively at my boot soles as I tried gently to prod him far enough away from the camera to focus the lens on him.

And then, Old Bill, whose picture appears with this story, ate the strap on the camera tripod in two while my back was turned long enough to photograph a Ptarmigan a hundred yards away. He was welcome however, for he posed for at least a dozen photographs and was otherwise very obliging.

Old Bill's attitude, I considered, was a trifle unorthodox, for there are many references to the shyness and wariness of this tribe.

In this connection, H. E. Anthony, whose Field Book of North American Mammals is every mammalogist's constant vade-mecum says of the Marmots: "They have a loud piercing whistle and are ever on the alert, seldom permitting a close approach. Their eyesight is keen, for they must be on the lookout not only for four-footed enemies but for the large birds of prey."

If the Marmots were fairly easy photographic prey, the little Cony was the reverse. Though constant evidence in the shape of their unique haystacks was found, none could be induced by patience or guile to pose before the cameras.

Another interesting animal I failed to photograph was the little Chipmunk found on the high talus slopes near Lake McArthur. Scarcely larger than a good sized mouse and as active as a Hummingbird on a warm day, these little fellows scampered about on the rocks, playing a hilarious game of hide and seek with one another. At times they stopped to feed on the ripening seeds of the grass and when they could not reach it from the ground, their small size enabled them to climb the stalk where they hung swaying in the breeze like urchins "skinning the cat" as they stripped the seeds into their mouth pouches. Doubtless they belonged to the Eutamias group of Chipmunks, but which one, I would not hazard a guess.

It was a joy to see mountain goats from the door of the Alpine Club cabin. They stood out clearly on Wiwaxy peaks and their movements could be plainly discerned even without the aid of the field glasses. Through the binoculars it was easy to see the sedate actions of the old ones as compared with the clowning antics of the two half-grown kids which accompanied the six fully grown goats up and down the steep rock places.

The nearest I ever got to the goats was the day I attempted to climb Yukness. When halfway up, I saw a venerable old Billy peer downward at me from a ledge 75 feet over my head. When I reached the ledge, dainty footprints and a few white hairs showed where he had been, but he never showed himself again.

The list of birds and mammals seen is as follows:

A.O.U

Number

BIRDS

- Harlequin Ducks (*Histronicus histronicus*). A group of four seen on one of the little ponds on the plateau above the camp on the trail to Lake McArthur.
- 263 Spotted sandpiper (Actitis macularia). Fairly common especially along Tote creek.
- White Tailed Ptarmigan (*Lagopus leucurus*). Seen on the alpine meadow at the foot of Mt. Yukness with six chicks able to fly. Another at Lake McArthur with one chick, also able to fly. (Aug. 16).
- 322 Sharp-shinned Hawk (Accipiter velox). One seen at the club hut meadow (Aug. 15).
- Golden Eagle (*Aquila chrysaetes*). Fairly common. Said to nest on Wiwaxy peaks. Eagles were seen frequently soaring over the peaks. Others seen along the Hector-O'Hara trail; one was surprised sun-dozing on a rounded knoll near Lake McArthur.

- 360 Sparrow Hawk (Falco sparvarius). One seen on trail between Hector and O'Hara.
- Rufous Hummingbird (Selasphorus rufus). One male bird at Alpine club hut (Aug. 9).
- 484 Canada Jay (*Perisoreus canadensis*). Very common about the Alpine club hut, the horse corrals and the chalet at O'Hara.
- rf91 Clarke Nutcracker (*Nucifraga columbiana*). Very common. Generally associated with the Canada Jays. There was a marked flight of the Nutcrackers every evening, just at dusk to Mt. Odaray.
- Grey Crowned Rosy Finch (*Leucosticte tephrocotis*). Seen at higher altitudes on Mt. Yukness and above the timber in the neighborhood of Lake McArthur. In small flocks in suitable localities.
- Tree Sparrow (*Spizella arborea*). Seen at timber line on alpine meadow on way to Opabin pass. Not very common.
- Slate Colored Junco (*Junco hyemalus*). Very common in the wooded parts. Seen along the Hector-O'Hara trail; near the Alpine club hut; on trails to Lake McArthur and to Mt. Yukness.
- Song Sparrow (*Melospisa melodia* sp.?). Not very common. Seen principally at timber line thickets, in small flocks; perhaps in migration.
- Fox Sparrow (Passerella iliaca). A few seen near Tote creek.
- 588 Spotted Towhee (*Pipilo maculatus*). One male seen on trail to Hector.
- Yellow Warbler (*Dendroica aestiva*). Quite common. Appeared to be migrating. Encountered at Tote creek; on trail to Opabin pass.
- Myrtle Warbler (*Dendroica coronata*). On plateaus above camp. In small flocks, evidently migrating.
- 697 American Pipits (Anthus spinoletta). Seen at Lake McArthur Aug. 16. Several birds.
- American Dipper *(Cinclus mexicanus)*. Found in suitable places on Cataract creek near Hector and at least two pairs on Tote creek. Seen mating Aug. 14.
- White Breasted Nuthatch (*Sitta carolinensis*). Several seen, principally on ridge between A. C. hut and chalet and in woods along Tote creek.
- 748 Golden Crowned Kinglet (*Regulus satrapa*). Small flocks in timber line thickets. Probably migrating.
- 754 Townsend's Solitaire (*Myadestes townsendi*). Only one bird seen, that on Aug. 15, in the woods near the A. C. meadow.
- 759 Hermit Thrush (*Hylocichla guttata*). Fairly common particularly along Tote creek.
- 761 Robin (*Turdus migratorus*). Two seen near Hector station.

MAMMALS

(arranged after Miller's List, 1923 edition, from Anthony),

Mountain Weasel (Mustela saturate). One seen at Lake McArthur Aug. 16.

Okanagan Hoary Marmot (*Marmota caligata okanagana*). Very common. Seen near A. C. meadows; in woods along trail to Lake McArthur and particularly common on lower slopes of Mt. Yukness. (8000 ft.).

Columbian Ground Squirrel *(Citellus columbianns)*. The most common living creature in the O'Hara area. Found everywhere in suitable localities.

- Chipmunks. At least two species, perhaps Eutamias quadrivittatus and Eutamias amoenus are to be seen. The latter, appears to be confined to above timber line on the trail to Lake McArthur.
- Red Squirrel (Sciurus hudsonicus). Very common in woods. Yellow-haired Porcupine (Erethlzon epixanthum epixanthum). Several noted near the A. C. hut and along Hector trail.
- Pika (Ochotona princeps princeps). Fairly common above timber line on alpine meadow at foot of Mt. Yukness. Many green haystacks during August. Also seen at McArthur pass.
- Mountain Goat (Oreamnos americanus). Six with two kids seen on Wiwaxy peaks. One on Mt.

Yukness.

THE NEW SEYMOUR CABIN OF THE VANCOUVER SECTION

By Frank Smith

The original cabin of the Vancouver section on Seymour mountain (*C.A.J.*, Vol. XX, page 117) was formally opened in November 1931. Situated at the end of a rocky spur at an elevation of 3500 feet, it was subjected during the following winters to very severe strains due to drifting snow which sometimes completely buried it. Under these conditions it was found that the roof design and sawn lumber construction were not suitable and extensive repairs had to be made each Spring. On several occasions the roof partially collapsed and there was considerable danger of it breaking down altogether. Accommodation was also rather cramped for large parties and with the great development that has taken place during the past eight years on Seymour mountain, its location on one of the main trails to the upper levels, made it subject to damage by vandals who broke in on numerous occasions and stole valuable equipment.

In addition to building the cabin and leasing the site from the Greater Vancouver Water Board, the section had also acquired a lease of some 670 acres from the Provincial Government, embracing the finest ski-ing area on the mountain. This was done not only in the interests of the Club but the general public also, in order to prevent this area from being exploited by private interests. Each year saw the area put to greater use by skiers in general and it was felt that the section should not continue to bear the financial burden of the lease. During 1937 therefore, negotiations were entered into with the Provincial Government, under the direction of Mr. W. E. Martin, then Chairman of the section, and an arrangement finally made whereby the lease was cancelled and the area covered set aside as a Provincial Park Reserve, to be administered by a committee of three (without remuneration). This committee consists of a representative of the Vancouver Section A.C.C., one from the British Columbia Mountaineering Club and one from the Vancouver Winter Sports Club.

As soon as these arrangements had been completed it was decided that a new cabin must be built on a new site, as the original structure could not be satisfactorily enlarged and its site was far from ideal. Plans were therefore drawn up for a log cabin, this being considered the most suitable type of construction. It was also decided that the construction of the log shell should be placed in the hands of an expert, as section members could not afford the time and lacked the experience to make a really first class job within a reasonable period. A very generous response on the part of members and friends provided the necessary funds and the work was let in the Spring of 1938.

A new site was chosen on the land leased from the Water Board, at about the same elevation but a short distance south and east of the old site. Suitable logs not being available in the vicinity they had to be obtained from Water Board property and hauled in by horse a distance of about a mile. Cedar shakes for the roof had also to be cut some distance away and were packed up about 1000 feet by members during the Spring.

By the end of August the log shell was completed with the door and window openings cut. The building measures some 30' x 18' inside and is two stories high. It is a wonderful piece of construction, all the logs being pegged and underscored, and the joints packed with oakum.

The Fall climbing schedule of the section was cancelled and all available members got together under the splendid leadership of the Chairman, Mr. Eric Brooks, who spared neither time nor energy to make the undertaking a success. Lumber for the floors and partitions, windows,

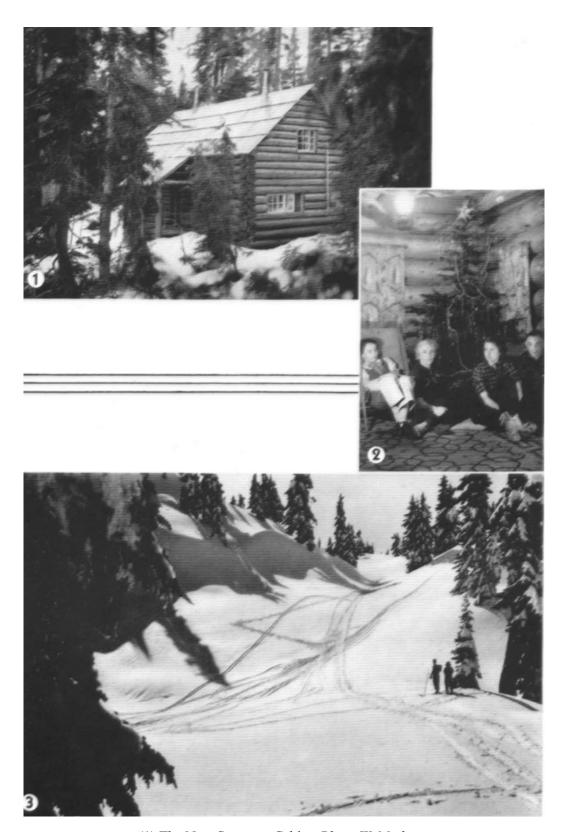
hardware and numerous other materials and equipment were packed up some two thousand feet and a distance of three miles during successive week-ends in all kinds of weather, the ladies doing their full share of this hard work, and by Thanksgiving Day everything was ready for the final move from the old cabin and the demolition of that structure. A weird procession might have been witnessed on the morning of October 8, passing between the two cabins conveying everything that was moveable to the new home. It looked like the flight of refugees from an invading army. By noon the job was finished and by nightfall the old building had been torn down to the ground floor.

It was not without regret that members witnessed the passing of the old cabin. It had served its purpose, and been the scene of many a happy gathering during the previous eight years, although, it must be admitted, it had added a few grey hairs to the heads of successive Chairmen.

The new structure comprises three rooms on the ground floor, one, 12' x 18' used as a living room, one of the same size used as kitchen and dining room, equipped with range, sink and best of all a pump connected to a well sunk outside which has provided ample water throughout the past winter. In the centre is a smaller room 6' x 18' used for storing skis and other equipment. A stairway leads to two sleeping rooms upstairs, one for the ladies and one for the men.

Further donations, raffles and lectures provided additional funds for furnishing and by New Year's Day 1939 the new cabin, free of all debt, afforded an almost luxurious haven for those desiring to ski or climb on the mountain.

The top of Seymour mountain is the finest ski-ing area in the immediate vicinity of Vancouver, which fact is now realized by all, and plans are now afoot in cooperation with the Provincial Government to open up the area more extensively by means of a motor road which will bring the cabin within fifteen minutes walk of cars. Whether this will take place this year or not is undecided but in any event the Vancouver section is fortunate in having such a fine cabin completed and it is hoped that all visiting members of the Club will be able to make use of it both in summer and winter and thus gain some idea of the splendid mountain area adjacent to Vancouver.



(1) The New Seymour Cabin. Photo W. Mathews

- (2) New Year's Eve, 1938. Photo W. Mathews
- (3) Ski Run On Seymour. Photo Nelly Fraser

ORIGIN AND FOUNDING OF THE ALPINE CLUB OF CANADA, 1906

By Arthur O. Wheeler

It is not generally known that prior to the founding of the Alpine Club of Canada in 1906 an Alpine Club was formed. This was in 1883, when Sir Sandford Fleming, accompanied by Principal Grant of Queen's University, were on their way across the Canadian Rockies along the route of the still unfinished transcontinental railway, the Canadian Pacific.

They had stopped for luncheon beside a rippling brook at the summit of Rogers pass over the Selkirks, beneath the towering cliffs and tumbling glaciers of the surrounding peaks. Their ponies were feeding in the alpine meadow and scattered bunches of graceful spruce trees gave the appearance of a delightful parkland. The wonder and beauty of the scene, lighted up by brilliant sunshine, was fascinating and, spell-bound, in a moment of enthusiasm, it was suggested that the party form an Alpine Club for Canada to commemorate the occasion, as no more fitting place could be found.

The suggestion was acted upon. Sir Sandford was elected President and Principal Grant, Secretary. The first business of the Club was a vote of thanks to Major Rogers, then present,



Major A.B. Rogers

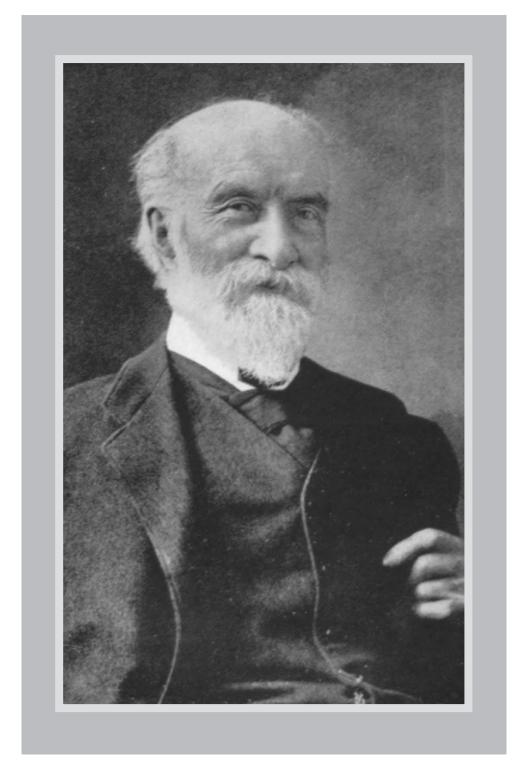
for having discovered the pass, through which the Canadian Pacific Railway now runs, and to his nephew, Mr. Albert Rogers, also present, for having assisted him.

It was decided, as an initial activity, to make the first ascent of the great monolith recently named "Syndicate Peak," now known as "Mt. Sir Donald." Unfortunately, pressing business elsewhere hindered this ambitious project; and thus the ephemeral alpine club of a moment of ecstasy died a natural death. The story is told in Sir Sandford's book, *Old Westminster to New Westminster*, a Summer Tour.

It is a far cry to the influences and incidents that led to the founding of the Alpine Club of Canada in 1906 and reaches across the ocean to the little town of Yzeure, not far distant from Paris, to the country place of a genial, smiling, little scientific gentleman named Colonel Aimé Laussedat, Professor of Astronomy and Geodesy at the Ecole Polytechnique, Commissioner for the Franco-German boundary in 1871-73 and Director of the Conservatoire National des Arts et Metiers, 1881-1900. He was Grand Cross

of the Legion of Honor, Colonel of Engineers and a member of the Academy of Sciences. He was best known to Canadians as the father of Photo-grammetry, the method applied by Dr. E. Deville, F.R.S.C., for forty years Surveyor General of Canada, to the mapping of the Canadian Rockies, where the method received its first practical and extensive application and by which the present excellent series of contour maps have been made.

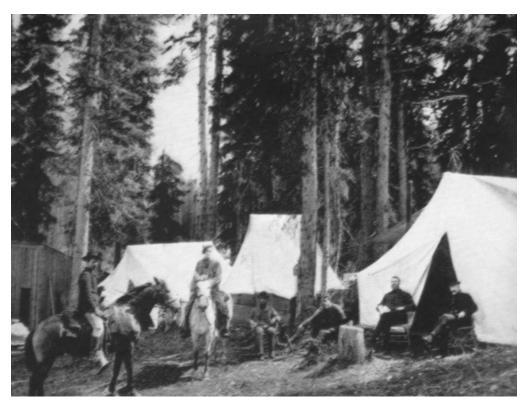
As a private hobby Col. Laussedat was greatly interested in his gardens of rare growths and, at Dr. Deville's request, I sent him some plants and shrubs of the Selkirks, including the devils-club, which he later acknowledged and said they were growing nicely. Colonel Laussedat died shortly after his election to Honorary Membership in the Alpine Club of Canada, 1907.



Sir Sandford Fleming



Mt. Sir Donald. Photo Courtesy C.P.R.



Surveyors' Camp On Rogers Pass. Photo Courtesy C.P.R.

Dr. Deville and he were warm friends and it was at Colonel Laussedat's instance that the Surveyor General adapted his photo-topographic methods to the survey and mapping of our mountain regions. It took much study and experiment to get the system going and applied and I had the honor of being permitted to collaborate with him. Dr. Deville was one of the original Honorary Members of the Club. He took a deep interest in it and assisted it greatly in many ways through his official position and influence.

Later, in 1901, I was sent to survey and map the region of the Selkirk range adjacent to the line of the Canadian Pacific Railway. The first through train had passed over the road on the morning of November 7, 1885. All that then remained to complete this great national undertaking that was to open the Canadian mountain regions to the world was the driving of one last spike. This duty devolved upon the senior director present, Sir Donald A. Smith, later known to history as Lord Strathcona and Mt. Royal. This spike was driven at Craigellachie in the Gold range.

The opening of the transcontinental railway soon brought an influx of those interested in seeing and exploring new country and wild mountain areas, and a demand for accommodation led to the erection of chalets at strategic points, which quickly developed into summer hotels. One of the most attractive was built near the Rogers pass summit beside a station named "Glacier" and was generally known as "Glacier House" from the fact that the so-called "Great Glacier of the Selkirks" tumbled some 3000 feet in a broken cascade of ice from the Illecillewaet icefield and was in full view above the trees a mile and a half from the Chalet. Close by, a mile away, in overpowering majesty, rose Mt. Sir Donald, over 10,000 feet in altitude above the sea, and in the clear mountain atmosphere it seemed to rise almost from your feet. From the summit lie spread before you the wonders of creation: on all sides are snowfields and their outflowing glaciers, huge reservoirs to gather moisture from the sun-scorched Pacific Ocean. White summits mingle with the fleecy clouds. Around are avalanches and rockfalls and below roaring torrents grinding with ceaseless force the fragments deposited in their beds by the glaciers from above. In this land of beautiful solitude there is restless energy at work day and night, tearing down mountains to build alluvial plains hundreds, aye, thousands of miles distant.

Glacier House soon became a favorite resort for members of the Appalachian Mountain Club and was visited by members of The Alpine Club (England) and by others interested in mountain regions. The surrounding peaks were climbed and a first map made of the vicinity by the Rev. William Spotswood Green, a witty Irishman and member of the Alpine Club. William S. and George Vaux Jr. of Philadelphia and later Miss Mary M. Vaux began observations of the Illecillewaet glacier in 1887 and made a survey and map of its great ice forefoot and the morainal bed of its flow. They were frequent visitors at Glacier House from which they carried on their surveys and measurements.

In 1901 my photo-topographical surveys necessitated the acquirement of a knowledge of climbing technique and consequently I had to frequent Glacier House, where the charming and efficient hostess, Mrs. J. M. Young, generally known at Glacier as "Mother Young" from her motherly methods of looking after her guests and staff and the trainmen employed at Glacier, by all of whom she was liked and loved, took me under her wing. She placed the C.P.R. Swiss guides at Glacier House, then six in number, at my disposal. I shall not readily forget my first climb, Mt. Overlook, accompanied by the six of them, all keen to impart information. We parted with mutual respect and esteem to meet again on other climbs and at Alpine Club camps.

Mrs. Young's keen sense of humor made her a delightful hostess and she entertained us greatly by her humorous stories of funny incidents with her guests during the summer, for instance:



Driving The Last Spike At Cragellachie, Nov. 7, 1885. *Photo Courtesy C.P.R.*



Glacier House



Swiss Guides At Glacier.

the quaint visitor who was shown to his room and immediately came back to the office in a towering rage, saying, "I can't sleep in that room." Mrs. Young inquired, "Why? It is one of the best rooms in the house." He replied, "The bed is not in the magnetic meridian." Mrs. Y., "Can you not put it there?" He, "Oh may I?" Mrs. Y., "Put it anywhere you like. Out of the window if that suits you." He went off quite happy with his little pocket compass to put his bed in the magnetic meridian.

Another yarn that took my fancy was of the British midshipman, who sent his white flannel trousers to the laundry. In the middle of the night Mrs. Young was awakened by a violent ringing of one of the room bells. Slipping on a wrapper, she went to see what was the matter, knocked on the door and inquired, "What's wrong?" It was the midshipman and all he could ejaculate in reply was, "My tickets! My tickets!" Mrs. Y., "What's wrong with your tickets?" He, "I sent my flannel trousers to the laundry and my tickets were in one of the pockets." Mrs. Y., "They may not be washed yet. I'll go and see."

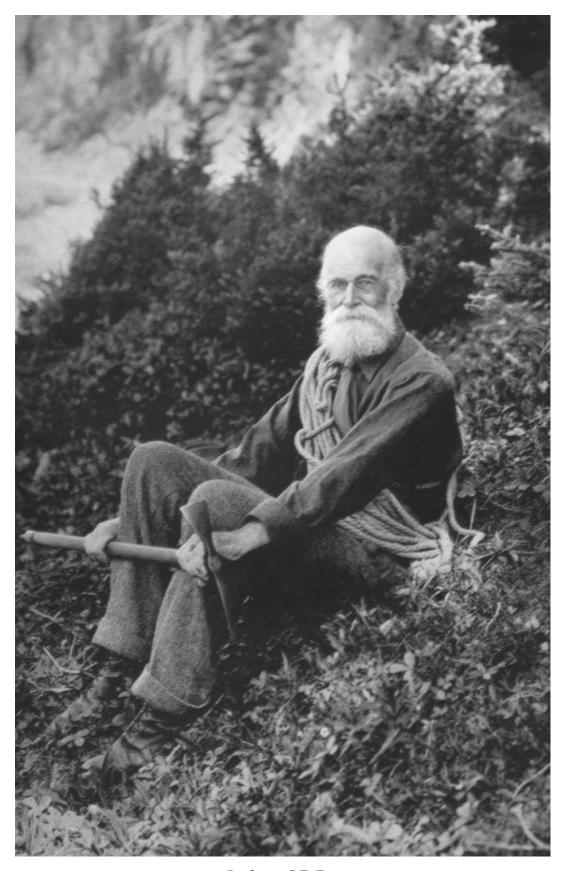
She brought back a newly laundered pair of white trousers and, sure enough, the tickets, comprising his railway and steamship to Hongkong, meal tickets, etc. were a mass of pulp in one of the pockets and almost indistinguishable. Here was a fix! But through the kindness of Mr. Tom Kilpatrick, Mountain Division Superintendent, substitutes were provided and the boy sped happily on his way.

It became my habit to visit Glacier House regularly each fall and gather a quota of these humorous yarns for my lectures on the mountains. It seemed to me almost like a home and I was duly adopted into Mrs. Young's widespread family circle. I cannot refrain from one more yarn of Glacier House. In those days the average snowfall at the Selkirks summit was 30 feet, sometimes nearer 50 feet. The Connaught tunnel had not been thought of and the railway track passed quite close to the hotel entrance. In mid-winter the snow reached to the roof of the main building, for there were several annexes which had been added as needed. A ten-foot high tunnel through the snow led from the station platform to the hotel entrance. Mrs. Young had invited my wife and me to spend Christmas with her. There were a few others, waifs and strays. On Christmas Eve we were all gathered around a cheery log fire, chatting and telling yarns. Mrs. Young, the soul of hospitality, had provided a jorum of mulled port for the occasion, which was mulling on the fire and had frequent calls. In those early days the trains did not haul dining cars over the heavy mountain grades and passengers had their meals at the several mountain hotels. At Glacier House the large dining room opened off the lounge and the constant flow of people, to and fro, had worn a depression beneath the entrance doors, leaving a space under them; the floors were stained a dark oak color. Electric light was furnished by water power from the nearby Asulkan brook and was generally somewhat dim. Looking toward the dining room from my seat at the fire, I saw a slice of bread come from under the doors, run along the floor and go up the stairway leading to the rooms above. Watching, goggle-eyed, I soon saw a second slice repeat the performance. Aghast, I turned to Mrs. Young and said, "Is this house haunted or am I seeing things?" "Why! What is the matter?" "I have seen two slices of bread come from under the dining room doors and go upstairs." "Oh!" she replied "Those confounded mountain rats." This I promptly verified, for taking a cane I stood in a corner behind the upstairs entry and, as a third slice was making its way along, I slashed down behind it and killed a mountain rat. The dark floor and dim light had made the propelling rats invisible.

It is needless to say that these surroundings: the climbs, the nightly gatherings around the fire and the yarns, in which the summits were always reached, soon had the usual effect and I became a devoted enthusiast of climbing in the delightful, devilish Selkirks, where semi-tropical



A.O. Wheeler



Professor C.E. Fay

forests and dense undergrowth of alder and devil's-club guarded the approach to the icefields and their surrounding snow-clad peaks.

I met there, in 1901, Professor Chas. E. Fay and again in 1902, the second year of my surveys in the locality. He was then President of the Appalachian Mountain Club and was keenly interested in the formation of an American Alpine Club. I discussed the subject of a Canadian Alpine Club with him and during the following winter corresponded with possible prospects to ascertain the feasibility of forming such a club. I met with scepticism and indifference and found only one enthusiastic supporter, the Rev. Dr. J. C. Herdman, pastor of the Presbyterian church at Calgary, who was an enthusiastic lover of the mountains and an ardent climber. On one occasion, Dr. Herdman started from Glacier House accompanied by the Swiss guide, Edouard Feuz, senior, to make the first ascent of Mt. Macdonald at Rogers pass summit, beneath which the Connaught tunnel now carries the railway. The ascent was simple and they reached the summit before noon. The guide, as is customary, took off his hat and said, "I congratulate you, Sair. You have made a very fine ascent." It was a very hot day. Beside the Doctor was a huge boulder with a little pool of water in a crevice at the centre. Feeling the heat, he plunged his bare arm into the pool and, feeling some fragment at the bottom, took hold of it and brought up a rusty nail. Alas for his cherished first ascent. ¹

In 1902, I again discussed the subject with Professor Fav. He had nearly completed his arrangements for the formation of the American Alpine Club. When I told him of my disappointments, he suggested trying the formation of a Canadian section of the American Alpine Club and even suggested calling the organization "The Alpine Club of North America" of which the Canadian organization would become a part. I again tried to get support on these lines and sent letters to some of the leading newspapers, among them the Manitoba Free Press. Shortly after, I received a copy of that paper containing a marked article signed "M.T." Amongst other matters it took me roundly to task, declaimed my action as unpatriotic, chided my lack of imperialism and generally gave me a pen-lashing in words sharper than a sword. This was "right into my mitt" and I promptly replied: "Dear Sir," you are just the person I want to find. If you will give me your assistance and can open the columns of the Free Press to our support, I shall be very glad to go ahead on patriotic and imperial lines. My "Dear Sir" turned out to be that literary and cultured lady, Mrs. H. J. Parker of Winnipeg, on the staff of the Manitoba Free Press, whose contributions to that outstanding paper, "The Bookman," and "The Free Press Causerie," etc., were known all over the world and delighted in by those who had the good fortune to have access to them. The result was that the Editor, Mr. J. W. Dafoe, a leading Canadian, opened the columns of his paper to us and became one of our strongest supporters. Mrs. Parker then began a campaign of propaganda that has been one of the most helpful factors of the Club's formation. That and similar propaganda by the Rev. Dr. Herdman in the Calgary Herald, also a strong supporter, made other papers sit up and take notice and so the ground "was being prepared for the organization of an Alpine Club for Canada, and the Canadian Cordillera and its possibilities was being brought to the public mind, gradually gaining adherents. Mrs. Parker's cultured and forcible style of writing, her keen sense of vision and invariable accuracy of statement was a most successful factor in the results. She was always a stickler for accuracy. At our Mt. Robson camp in 1913, the first one, the distance from the railway station to the camp, nineteen miles, was too far for her to walk, so she was provided with a pony, which followed along behind the pack train, led by Jack Otto, an old time outfitter and trail guide.

¹ See Alpine Notes in this issue (Ed.).

Jack had a yell of his own to keep the ponies on the move. It sounded like "Yo! upp!" "Yo! upp!" and was frequently applied. Presently, a voice came faintly from the rear: "Jack, how do you spell that?" At that moment a commotion occurred among the ponies in front, commonly called a "jackpot," when the leading pony turns off the trail to snatch a bite of grass and breaks back into the following line. All was confusion. I saw Jack take a reef in his belt, but he refrained from using the only language thoroughly understood by pack ponies, in respect for the lady with the party. The same faint voice again came up from the rear; "Jack! say d-n." Jack took another reef in his belt and turning to me said, "Wouldn't that knock you."

Many prominent people were now taking an interest, among them Mr. R. Marpole, General Superintendent of the Western Division of the Railway, Mrs. J. W. Henshaw of Vancouver, author of *Mountain Wild Flowers of Canada*, the Very Rev. Dean Paget of Calgary, a keen mountain lover, Dr. A. P. Coleman of the School of Practical Science, Toronto, one of Canada's leading geologists, and others. Interest was being displayed by the mountain tourist outfitters and trail guides and inquiries and correspondence were becoming frequent. But, it was not until February 14, 1906, that the psychological moment arrived. Mr. William Whyte, later Sir William, Second Vice-President of the Canadian Pacific Railway, had called a meeting of the deputy heads and high officers of the Western Division for conference at Mt. Stephen House, the Company's summer hotel at Field, .B.C. Mr. Marpole had kindly sent me an invitation to be present and be introduced



Sir William Whyte

to the Vice-President, so that I could personally lay the matter of the formation of an Alpine Club before him. On the morning of February 14 I was introduced to him and made my statement.

He was standing with Mr. Marpole on one side and Mr. C. E. McPherson, Western Passenger Traffic Manager, on the other. As I closed my statement, he asked abruptly, "What do you want?" I replied, "I want twenty passes to Winnipeg and return from any part of the Railway, to bring delegates there to found an Alpine Club for Canada similar to the European and other big alpine clubs of the world representing mountain ranges such as the Canadian Cordillera." He looked astounded, then incredulous, then scornful, as much as to say "What confounded cheek."

Then he roared, "Twenty passes to Winnipeg from any part of the Railway!" and turning to Mr. McPherson, he said in a most sarcastic tone, "What do you think of that, McPherson?" Mr. McPherson replied, "I think it would be a first class idea Mr. Whyte." "All right! "Mr. Whyte replied with a broad

smile, "Fix it with him." And that little episode was the climax that enabled a meeting of delegates at Winnipeg to found an alpine club for Canada. Winnipeg, although a prairie town, had been selected as a mid-way point between east and west. Later, Sir William Whyte became one of our strongest supporters, according us many practical kindnesses and facilities, such as the annual loan of two of the Company's Swiss guides for camps held in the C.P.R. tourist zone, transportation facilities for camp outfit, etc.

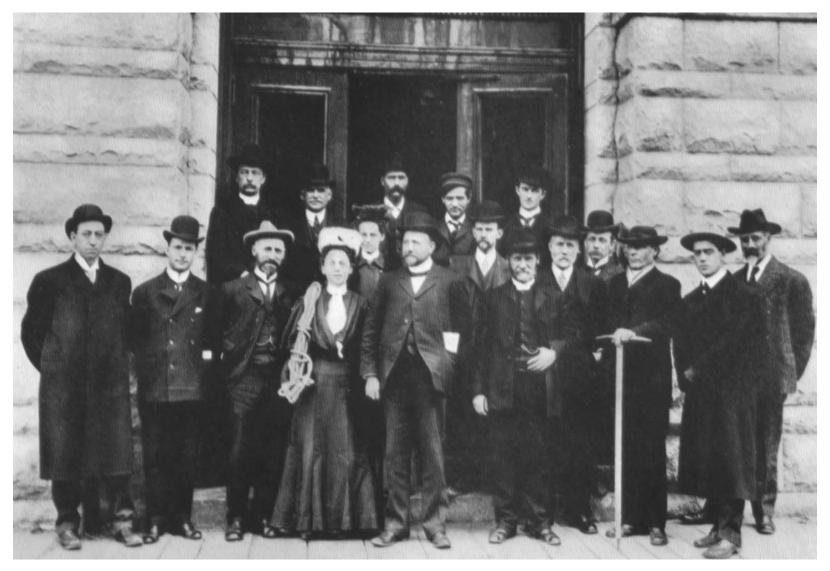


Group Of C.P.R. Western Officials At Field February, 1906.
(1) C.E. Mcpherson. (2) Sir William Whyte. (3) R. Marpole.



Guides In Charge Of Climbing 1906 Yoho Camp.

Left to right: E Feuz Jr., H.G. Wheeler, M.P. Bridgland, G. Feuz



Group Of Organizers At Y.M.C.A. Building, Winnipeg, March, 1906.

Back row, left to right—Rev. T. Fraser, L.O. Armstrong, Tom Martin, W.H. Belford, Rev. Alex Gordon.

Middle row, left to right—Miss Jean Parker, Stanley Wills, S.H. Mitchell, L.Q. Coleman.

Front row, left to right—J.W. Kelly, W.J. Taylor, A.O. Wheeler, Mrs. H.J. Parker, E.A. Haggen, Rev J.C. Herdman, D.D., A.P. Coleman, Ph.D. Very Rev. Dean Paget, W. Brewster.

No time was lost and after preliminary correspondence with Mrs. Parker and Dr. Herdman a circular was drawn up and sent to representative persons inviting them to attend at Winnipeg as delegates. A full number accepted the invitation and the date was set for March 27 and 28. At Winnipeg, Mrs. Parker worked like a Trojan and succeeded in interesting the Canadian Club of that city, who extended an invitation to the writer to be guest-speaker on the subject at their luncheon on March 28. They also invited a number of the attending delegates to be their guests on that occasion. So it may be said that the Alpine Club of Canada came into existence with the blessing of the Canadian Club of Winnipeg. On March 26, accompanied by the Rev. Dr. Herdman, I arrived at Winnipeg and an informal meeting was held at Mrs. Parker's house, when we went over the arrangements and programme.

Again at Mrs. Parker's instance, the Y.M.C.A. had kindly offered us accommodation at their spacious building and, the delegates having been rounded up, the first organization meeting was held during the afternoon of March 27 with Dr. A. P. Coleman in the chair. Committees were then appointed to draw up a constitution and provide for election of officers, etc.

The delegates attending were as follows: W. T. Dalton, Vancouver, B.C.; E. A. Haggen, M.E., J. A. Kirk, D.L.S., Revelstoke, B.C.; S. H. Baker, Glacier, B.C.; Tom Martin, Field, B.C.; R. E. Campbell, Dan Campbell, Laggan, Alta.; Tom Wilson, W. A. Brewster, Banff, Alta.; Rev. J. C. Herdman, D.D., A. O. Wheeler, F.R.G.S., Very Rev. Dean Paget, M.A., D.D., Calgary Alta.; L. Q. Coleman, Morley, Alta.; Rev. A. M. Gordon, Lethbridge, Alta.; Mrs. H. J. Parker, Miss Jean Parker, S. H. Mitchell, Rev. C. W. Gordon, D.D., D. H. Laird, Professor J. Stanley Will, C. E. Macpherson, C.P. Ry., Winnipeg, Man.; Rev. T. Fraser, Portage la Prairie, Man.; Professor A. P. Coleman, M.A., Ph.D., F.R.S., Toronto, Ont.; W. S. Taylor, Ed. Rod & Gun in Canada, Woodstock, Ont.; L. O. Armstrong, C.P. Ry., Montreal, Que.; R. H. Murray, Halifax, N.S.

The same evening, the writer, assisted by Dr. Herdman, gave a lecture entitled "The Wonderland of Canada" at the Auditorium of the Y.M.C.A. It was well illustrated by lantern views, showing many high peaks, ice and snow features, lakes, waterfalls and torrents, fauna, flora and climbing scenes in the mountain regions along the line of the Canadian Pacific Railway. Outstanding were panoramas from the summits of a number of lofty peaks reaching from fifty to a hundred miles in all directions. Dr. Herdman showed many fine ice and snow formations, also views of the interiors of the recently discovered and mapped Caves of Cheops, at the base of Mt. Cheops near the summit of Rogers pass. A full and appreciative audience attended.

On March 28 a meeting of the Committee to draft a constitution was held and a number of the delegates were guests at the Canadian Club luncheon. The writer as speaker portrayed Canada's great mountain heritage and explained the aims of the proposed Alpine Club of Canada as representative of it. There was a very full attendance and the subject seemed to be appreciated, for at the close E. L. Drewry and the Rev. Dr. C. W. Gordon (Ralph Connor) offered congratulations and joined the Club as its first two associate members, entailing a yearly subscription of \$25.00.

In the afternoon a final meeting was held for adoption of the constitution and election of Officers, and other matters vital to the Club.

The following Officers were elected for the first two-year term: Hon. President, Sir Sandford Fleming, K.C.M.G., Ottawa; President, Arthur 0. Wheeler, F.R.G.S., Calgary; Vice-Presidents, Professor A. P. Coleman, Ph.D., F.R.S., Toronto, and Rev. J. C. Herdman, D.D., Calgary; Secretary, Mrs. H. J. Parker, Winnipeg; Assistant-Secretary, S. H. Mitchell, Winnipeg; Treasurer, D. L. Laird, Winnipeg; Librarian, Miss Jean Parker, Winnipeg. Advisory Board: E. A. Haggan, M.E., Revelstoke, J. A. Kirk, D.L.S., Revelstoke, T. Wilson, Banff.



Mrs. H.J. Parker



The Dining Pavilion At Yoho Camp, 1906. Photo Byron Harmon

Six were elected to Honorary Membership, viz: Mrs. H. J. Parker, Winnipeg; J. Norman Collie, F.R.S., London, England; E. Deville, L.L.D., F.R.S.C., Ottawa; Chas. E. Fay, Litt. D., President of the American Alpine Club, Tuffts College, Mass., U.S.A.; Rev. W. S. Green, M.A., F.R.G.S., Dublin, Ireland; Edward Whymper, London, England.

It was decided that the temporary headquarters of the Club would be at the home of the Secretary, Mrs. H. J. Parker, 160 Furby Street, Winnipeg. It was decided to hold a first annual camp of the Club at Yoho lake, close to the summit of Yoho pass, in the following July. It was also decided to publish an organ of the Club to be entitled the *Canadian Alpine Journal* as soon as finances permitted. Votes of thanks were passed to the Canadian Pacific Railway, the Y.M.C.A. of Winnipeg, the Press for its fine support, the Canadian Club of Winnipeg and to all those who had so materially and enthusiastically assisted in the founding of the Club. And thus the Alpine Club of Canada became an established fact and set forth upon its future career under the happiest of circumstances. By the list of members published early in 1907 it is shown that the Club had 201 members, described as follows: Honorary 6, Associate 10, Active 93, Graduating 90, Subscribing 2. The qualifications of the various classes of membership will be found in the constitution as set forth in the first issue of the *Canadian Alpine Journal* in 1907, page 179.

The following are recorded as Associate Members, who paid an annual fee of \$25.00 to assist the Club's finances: Mrs. G. A. Anderson, Calgary; Mrs. P. Burns, Calgary; E. L. Drewry, Winnipeg; Sir Sandford Fleming, Ottawa; Rev. Dr. C. W. Gordon, Winnipeg; J. D. Patterson, Woodstock; Mrs. C. W. Rowley, Calgary; R. Stewart Solomon, Cape Town, S. Africa; Byron E. Walker, President Bank of Commerce, Toronto and Sir William Whyte, Winnipeg.

The Club has become International and at date of writing embraces very many members from the United States and members from England, Scotland, Ireland and many other parts of the world.

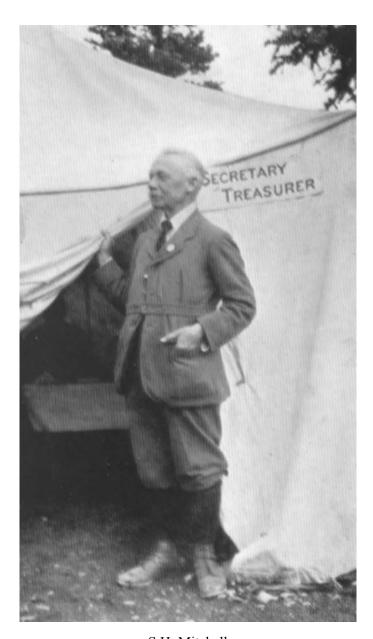
The memorable occasion was closed by an inaugural dinner at Manitoba Hall, the first of a series of annual dinners by the Club's various sections to commemorate its anniversary, an occasion always religiously observed.

It was found possible to publish the first issue of the *Canadian Alpine Journal* for 1907, a publication containing Miscellaneous, Mountaineering, Scientific and Official Sections, represented by contributed articles. It has 196 pages, 57 illustrations and 3 maps, and is a publication we need never feel ashamed of. The *Canadian Alpine Journal* is our sign-manual and, as representative of the Canadian Cordillera, is our medium of contact with the public of the world and with the big alpine clubs of its various mountain regions, one of which we aspire to be.

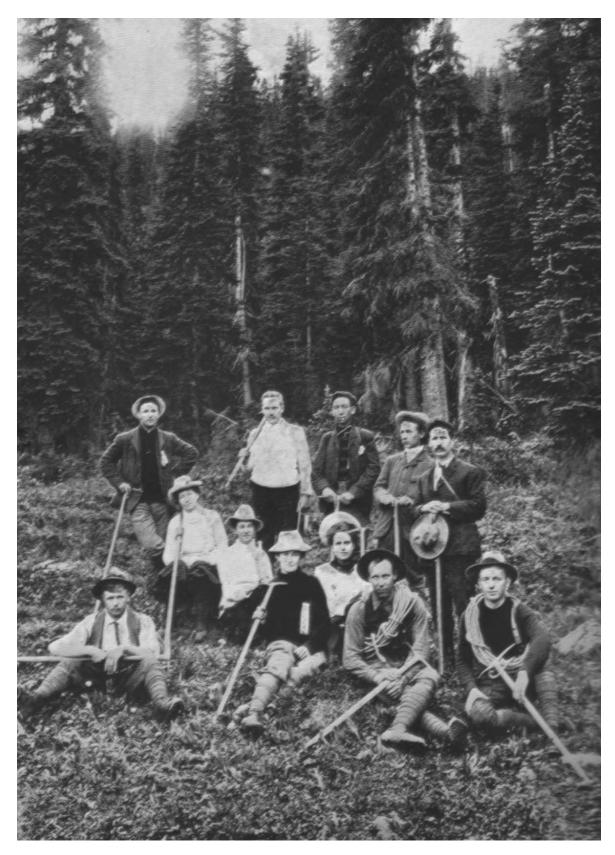
As planned our first Camp was held at Yoho lake, close by the summit of Yoho pass, from July 9 to 16, 1906, at an altitude of 6000 feet above sea-level. It was a huge success and attended up to the limit. A full account of it is found in the Official Section of the 1907 Journal (the first). Considering the condition of our treasury at the time, it was a most ambitious and dubious undertaking. It would not have been possible but for the generosity of a number of the mountain tourist outfitters, who gave their services and the services of their men and pack-ponies free of charge. They were: R. E. Campbell of Laggan, Jimmy Simpson of Banff, E. C. Barnes of Banff, Tom Martin of Field, Otto Bros, of Field and S. H. Baker of Glacier. We had no equipment. The Canadian Pacific Railway loaned us large canvas flies for the dining canopy, etc., and the Royal Northwest Mounted Police and Park authorities at Banff loaned us bell tents. I am happy to say that the financial success of the Camp enabled us to pay a small bonus to the several outfitters.



Sir James Outram and A.O. Wheeler.



S.H. Mitchell



A Party Of Graduates And Guides Returned From The Official Climb Of Mt. Vice President. *Photo Byron Harmon*

There was tremendous excitement for a considerable time beforehand. The majority did not know how to dress for the occasion or what was needed for alpine equipment other than well-nailed boots and ice-axes or alpen-stocks, with which they were well supplied. The rendezvous for the opening day was at Field, B.C. by the morning trains. I had left the Camp that morning to go in and meet the crowd and cheer them on their way. En route I met that old wag of a trail guide, Tom Martin, going in to the Camp. He stopped and leisurely took me in from top to toe, then remarked in his humorous drawl: "Say Boss! Git yer eye on them that outfits what's comin; they're fierce!" and they were. Ladies with long skirts and straw hats decorated with flowers; men with Derby hats and summer straws, some carrying umbrellas. But they soon got licked into shape; the two crack Swiss guides, Edouard Feuz Jr. and Gottfried Feuz, and two of the best climbers of my phototopographical survey parties, M. P. Bridgland and Hector G. Wheeler, took care of that and made things safe for the climbs. The Club's mountain school then began its work and a camp has been held every year of its life since then.

There is no need to go farther in this screed. The publication of the *Canadian Alpine Journal*, year by year, has amply set forth the subsequent history of the Club and its achievements. The high spots are duly recorded: the President's attendance at the Jubilee dinner of The Alpine Club at London, Eng. in 1907, when contact was first made with that famous club. The 1909 Camp at Lake O'Hara meadows, when we had some twenty members of the English Club as our guests at the Club House (opened that year) and Camp, and then took them on a six-day trip around the Yoho valley, half of it above timber line over the icefields. They said they had never done anything like it before and, sotto voce, sincerely hoped they would never do anything like it again. But they appreciated it for the majority joined the Club as life members and at the end of the trip gave us a magnificent banquet at Mt. Stephen House at Field. And, not very long after, the English Club admitted us to affiliation by a unanimous vote, even though our constitution enrolls lady members, which theirs does not.

The Club's expedition to and mapping of the Mt. Robson region took place in 1911 and the Smithsonian Institution collaborated with us and sent a party. Then, in 1920, there was the Club's participation in the Allied Congress of Alpinism held at Monaco under the auspices of the Club Alpin Français, when we first came in contact with that renowned Club, leading in scientific mountain interests. Our photographic and map exhibit at the Congress filled all of our allotted space and a considerable portion of a neighbor's, due to the splendid assistance of Dr. Deville and H. F. Lambart of the Geodetic Survey of Canada. Byron Harmon of Banff and Mrs. J. W. Henshaw were delegates representing the Alpine Club of Canada. Byron Harmon then showed the first moving pictures of mountain scenes and carried the French Club off its feet. He had to show them again and again. Finally in 1924-25, there was the Club's expedition to and capture of Mt. Logan, the highest Canadian mountain.

The Club is now in the thirty-third year of its career. It has done fine service in making known and bringing mountain lovers to the magnificent ranges it represents, and in training young Canadians to a fitting appreciation of their great mountain heritage. It is today in a safe position to continue the good work.

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THE APPROACH TO ORGANIZATION

By Elizabeth Parker

In his invaluable book, The Selkirk Range (1905), Mr. A. 0. Wheeler quotes in full Sir Sandford Fleming's account of an impromptu, playful Alpine Club "organized" in 1883, on Rogers pass. In Old Westminster to New Westminster, containing a record of the surveying expedition to determine a" route for the Canadian Pacific Railway, Sir Sandford tells about his group halting on the summit of the pass; and being impressed with the mountains around them, conceived the idea of an alpine club as a memorial of their visit. No sooner said than done, each with an office: President, Sir Sandford; Secretary, Dr. G. M. Grant (later principal of Queen's University); Treasurer, S. Hall Fleming. They drank success to the club in cold water of the Illecillewaet, and passed a resolution of acknowledgment to Major Rogers for his discovery of the pass. And the incident is preserved in mountain literature. Reviewing The Selkirk Range at some length for the Free Press, I repeated the episode and also an earlier appeal for a Canadian Alpine Club in the interests of climbing our own mountains by men throughout the Dominion. Mr. Wheeler wrote the reviewer that he had been moving for such a mountaineering club and that shortly one would be organized as a branch of the American Club which had done much to make the Rockies of Canada known in the United States. Would I help? I would, but only for an independent club. He was dubious about success in organizing on our own basis, and argued for his proposed branch of the older, active club. Correspondence between him and Professor Fay, President of the American Club, followed, and Mr. Wheeler kindly gave me the gist of it. Professor Fay reminded him that America stood for the whole Northern Continent; and I sent back an answer that the word had a national not a geographical significance. The next proposal was to change the name of the older club to "The Alpine Club of North America," and the natural reply was, what about the significant national symbol, the Eagle, on their crest?

Meanwhile I consulted Mr. Dafoe, editor of the *Free Press*, who said that though lacking personal mountaineering ambition, if an alpine club was formed, he would favor decidedly a Canadian club. Mr. Wheeler sent out letters to university men and persons proper to the project asking opinion. There was only one answer. Some of the answers to my own few letters were amusing.

Mr. Wheeler became strongly in favor of a Canadian club, and our good friend, Professor Fay and his climbing colleagues said at our first camp on Yoho pass and at later camps that we were right. The Americans are our steady friends, many belonging to both clubs.

Then Mr. Wheeler, the moving spirit in the organization, elected to come to Winnipeg in 1906 for the business. The Canadian Pacific Railway provided passes for delegates from the Pacific to the Atlantic, and the Alpine Club of Canada—the precise name chosen—began its existence here by the Red river of the North, with an enthusiastic membership. Its first dinner (in Manitoba Hall) sounded the strong echo, "Bring me men to match my mountains." Mr. Wheeler was made President and Sir Sandford Fleming, who telegraphed congratulations, Honorary President. Concluding, I am impelled to thank the *Free Press* for its effectual advocacy of a Canadian club, and to Mr. Wheeler for the unceasing energy with which he served both the Club and the Mountains for so many years. "Bring me men to match my mountains."

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COLOR PHOTOGRAPHY IN THE MOUNTAINS A SYMPOSIUM¹

COLOR PHOTOGRAPHY IN GENERAL

By Nicholas Morant

When the Editor of the *Canadian Alpine Journal* suggested that I prepare a brief on mountain color photography I admit being slightly perturbed in spirit. Who was I to lay down the law about color photography? One thing decided me—my desire to get closer to the alpinists. Upon these people I have always cast awed looks from afar. I remember warning little Wilbur once "Wilbur," I said, "alpinists are strange folk. They stage weird breakfast orgies by candle light at 4 a.m. and then silently disappear into the night, armed with axes, ropes and things on their feet which look like roller skates with broken axles. Yes Wilbur, they look something like the seven dwarfs—except that the dwarfs can sing better. No Wilbur, nobody worries—except a big fellow named Tweedy. He comes from Vancouver to count the tottering wraiths which descend from great heights and, one by one, fall exhausted outside his tent . . ." I think Wilbur is going to be an alpinist—he likes to drop lumps of coal on people's heads from my apartment window in the city.

Seriously—for the past two years, as Special Photographer attached to the Canadian Pacific press bureau in Montreal, I have spent the summer months round Banff and Lake Louise making pictures which we hope will encourage more visitors to the Canadian Rockies. Using a 5 x 7 camera, with Dufay film, I have made numbers of transparencies of mountain scenery. With the exception of Agfacolor plates, Dufay has until recently been the only film available in professional sizes. Too, I preferred Dufay because I was able to quickly process the films myself in a hotel room and consequently knew immediately the extent of my success—or failure.

The reproduction of color photographs on paper, which the trade refers to as "inhibition printing" or the "wash off relief process," is an exacting science in which manipulative agility coupled with fine tools calls for really skilled craftsmanship. I have no intention of discussing the process here since I candidly admit lack of real experience and, since my requirements are entirely confined to the production of well-exposed transparencies, do not intend investing either time or money in exploring the process farther at this time. When I require a wash-off relief print I shall turn the job over to an expert. For who can do the job better than he—working, as he does, with approved apparatus in the finest laboratory available. I am a strong believer that we live in a day of specialization. There are a thousand arguments against such a belief in the abstract sense but if my statement is considered in the "co-operative" spirit perhaps my more practical readers will see the point.

Now that Eastmans have produced Kodachrome in all standard sizes up to 11 x 14 the color scene is rapidly changing again. That this particular film will come into almost universal use amongst illustrative cameramen is a superfluous prediction. Already some buyers specify its use in their contracts because of its adaptability to the engraving process. There is no grain: each color is clean cut, whilst Dufay has a reseau pattern which annoys the engraver. Dufay has a tendency to reddishorange and Kodachrome to the blue-blue greenish. In Dufay's favor, however, is the opportunity for

¹ On account of the great interest in color photography, the ease with which it may now he pursued and the beautiful results that may he obtained, the Editor invited a number of photographers to contribute to this symposium. The subjects were assigned in each case by the Editor.

quick results whilst Kodachrome takes time to travel to the central laboratory and return.

To the layman Kodachrome gives "bright color:" Dufay, "subdued color." Recently I had the opportunity to compare two such transparencies, same subject—Lake Louise. The Kodachrome, by my friend Byron Harmon, was vivid, nicely exposed and, frankly, a better positive for the engraver. My Dufay, however, was freely admitted to be a better rendition of the color "as seen by the eye" than his.

The matter of exposure in color photography is just one continuous, grim spectre, haunting us all with his dreadful leer on bright days and dull alike. There's no escaping this awful thing: no sure potion, in the form of meters, capable of an indubitable triumph.

Before I left the west I dreamed of the day when I would see the master cameramen from New York and points east at work. Last winter I watched the birth of a front cover for a well-known publication. The master, having carefully consulted his meter, proceeded to shoot seven shots consecutively on Kodachrome (Leica). Keeping the shutter speed constant, he ran the whole gamut, half a diaphragm opening at a time—seven times. The cover was a success: but what was the exposure? Personally, I rarely shoot less than three shots. Hollywood is a good example of where quantity breeds quality and I think there are many who will agree that, "Even if the exposure was right the first time—I couldn't believe it."

Too much credit is assumed by the photographer, in his sly, unassuming way, for his color pictures. How many times have you observed a gent, arms 18 Kodachromes apart, displaying his artistry to a gallery of friends? The professional is the worst offender—yet in many cases he has only the vaguest idea how the film was processed. With Kodachrome, amateur and professional are equally placed, inasmuch as exposures are concerned, at any rate. Yet how many will admit the manufacturer (and processor) has any credit due?

Our "admiring friends" come in for a raking over the coals, too. The moment a color picture is projected on a screen, or otherwise viewed, everybody goes into fits of uncontrollable ecstacies. Color is here to stay: no longer is it in the novelty stage, so why not consider the pictorial values for a change? Composition, it would seem, can go climb the nearest halvah tree—so long as Nellie's red coat is red in the picture.

Leonardo da Vinci's words of advice to a student artist are particularly applicable to the manner in which color photographs are at present being received by the vast majority of people—including many who should know better.

"My friend," said Leonardo, "Vivid colors captivate the mob . . . the true artist caters not to them. . his pride and aim are not in glistening colors but in delicate tones of light and shade that make a flat surface appear convex ... he that scorns shading for color resembles a chatterbox who sacrifices the meaning of speech for empty but resonant words."

Da Vinci, back in 1500, born centuries before his time, must have sensed the weaknesses of color today . . . "Beware of coarseness and the abrupt, friend. Let your shadings melt away like smoke . . . like the sound of distant music."

STILLS IN SUMMER

By S. R. VALLANCE

It should be a matter of great encouragement to the color enthusiast that notwithstanding the supreme excellence of photography to be seen any day and at almost any hour in the motion picture theatre, an exhibition of good 35 mm. color stills has an appeal which always ensures a numerous and interested audience. And while at present the only practical way of viewing them

is by projection the confident expectation prevails that an easy process of paper printing will be evolved in the not far distant future.

The writer's experience has been confined to Kodachrome and limited to the past two seasons. In 1937, with a second-hand Leica of early model, with fixed or non-interchangeable Elmar 3.5 cm. lens, and a Bewi exposure meter for equipment, some 200 exposures were made under all sorts of light and atmospheric conditions. Only one exposure was made of each subject and all were in the mountains. So little expectation of success was there that a quarter-plate negative was taken of almost every one as a precaution against complete disappointment. As it happened, the processed films accumulated during the summer and none of them were seen until the season's exposures had all been made. Then it was exciting to examine them all. There were many bad ones, but surprisingly enough, the results on the whole were good, and were an inspiration to take color photography more seriously in 1938.

The early model was replaced by a Leica IIIa with Summar F. 2, 5 cm. lens and a Hektor 13.5 cm. lens to take care of long distance and close up work.

With this improved equipment some 300 exposures were made during the summer of 1938, all in the mountains, and again under all conditions of light and atmosphere. No screen or filter was used, nor was there any occasion requiring the use of a tripod.

And now for a few observations gained from this short experience, for what they are worth.

With regard to equipment, while in ordinary photography fine pictures are possible with an inexpensive lens, for satisfaction in the realm of color good equipment is indispensable. One definite conclusion arrived at was that color photography would be worth while only if full justice could be done to the scene before the camera. In ordinary negative photography lack of detail and diffusion will contribute an artistry producing a fine picture, while the same in color is nothing but displeasing, so that one cannot do full justice to the scene without a good lens.

With regard to exposure, the range of latitude in the exposure of Kodachrome is very narrow, and an underexposed or over-exposed transparency is generally a completely spoiled one.

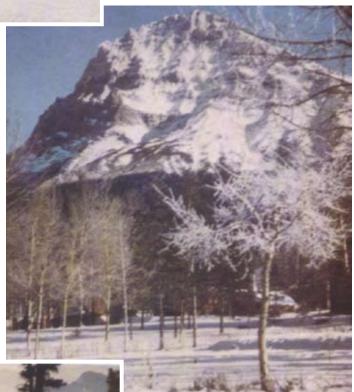
A reading based on 17° Scheiner on an ordinarily bright day in the mountains will generally give 1/30 of a second at F. 6.3 as the proper exposure. Astonishing as it may seem, sometimes a sunless day will have a light value equal, or nearly so, to a sunny day, while another sunless day, with no more apparent dullness, will be shown by the meter to have a great deal less light value. And the light is ever-changing. It is better to take a reading each time the camera is used. In early morning or late evening, of course, the light will change even while composition of the picture is being sought.

One entrancing thing about color photography in the mountains is that it is possible to capture the true atmosphere of the scene—the glow of dawn on the peaks while night still reigns in the valley; the gathering round the camp-fire before turning in; the moon over the lake- the heavy storm; the smoky haze;—all without subterfuge. An exposure of 1 second at F. 3.2 at 8 pm gave a perfect moonlight picture. For campfire scenes 1 /20 second at F. 3 gave good results. A similar exposure on the Columbia icefield of a group in a smoky dawn captured the atmosphere of the moment in a remarkable way. It was impossible to take a meter reading for any of these exposures. Whether rain or snowstorms can be successfully captured depends on the meter reading enabling an exposure speedy enough to stop or nearly stop the falling-drops or flakes.

On the mountain avoid if possible the heat haze of mid-day. Flat lighting is better than sunshine with deep shadows, for the colors themselves furnish all necessary contrast.



Approaching The High Camp. *Photo S.R. Vallance*



Mt. Stephen In Winter. *Photo A.A. McCoubrey*



Around The Camp Fire. Photo S.R. Vallance

A word about field of focus—with reference to the Leica of course. A study of the scale on the lens is well worth while. It will reveal that a greater field of focus can be secured by using the scale to the best advantage. For instance, with the lens set at infinity, at F 9 the field of focus is from 30 feet to infinity. By setting the infinity mark on the scale at F. 9 the field of focus is extended and is from 14 feet to infinity, and so on with any aperture.

Science has indeed opened up a new world for the amateur photographer, and so extended the former limits of his art that each new experience in the realm of color inspires him to further adventure.

CLOSE-UPS OF ALPINE PLANTS

By A. O. Brigden

The Leica camera,—with special equipment,—for photography of alpine plants, at close range, has considerably simplified and aided this branch of mountain photography, both in respect to the number of records which can be obtained within a comparatively short time, and the definite control of focus and area secured in difficult positions, or limited time available.

The special equipment, for use with the Leica camera, resolves itself into three items for the rapid determination of the exact field of view when taking close-ups, and the setting of the camera to the right distance:

a;—two front lens—No. 2 and No. 3;

b;—a lens-clamping-ring;

c;—a series of detachable legs to screw into this clamping-ring.

The series of legs screwed into the clamping-ring, on the lens, merely indicate the distance from the object and when it is in focus: these legs are pointed towards the subject, and the area circumscribed between the tips of the extended legs, indicates the area of the film in the camera.

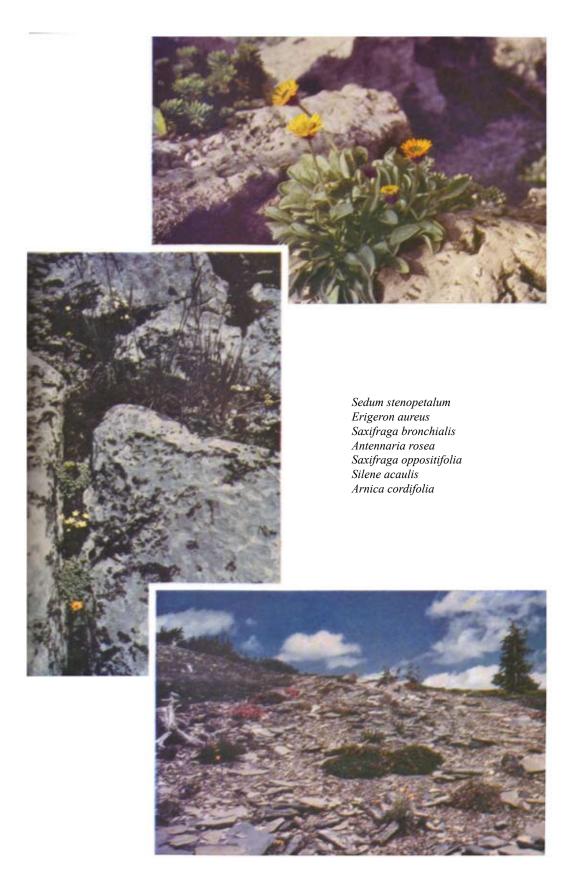
Focus is then determined by the focusing amount of the lens either being set at maximum or minimum distance, according to the extension of the legs used and the area included. The following chart indicates how this is accomplished:

Reduction of size	(Object) area	Depth of focus	Front- Lens used	Leica- Lens set at	Clamping-ring: Legs extended to
$1/3\frac{1}{2}$ th	5 x 3 ¹ / ₄	1¾ in.	No. 3	Minimum	first-mark
$1/4\frac{1}{2}$ th	61/4 x 41/4	21/4 in.	No. 3	Maximum	second-mark
1/6th	$8 \times 5 \frac{1}{2}$	2¾ in.	No. 2	Minimum	third-mark
1/9th	$12\frac{1}{2} \times 8\frac{1}{2}$	$5\frac{1}{2}$ in.	No. 2	Maximum	third-mark and extra legs

This chart indicates a depth-of-focus sufficient to photograph any alpine plant up to a depth of $5\frac{1}{2}$ inches: any size from 5 inches wide to $12\frac{1}{2}$ inches wide, and from $3\frac{1}{2}$ times reduction to a reduction of 9 times (one-ninth actual size).

Stop is always set at smallest opening—12.5, in order to obtain full depth of focus. Exposures range from $\frac{1}{4}$ sec. to $\frac{1}{15}$ th sec. for color-film—the shutter is released with a wire-release.

Focus is definite and accurate—depth-of-focus is sufficient—exposures are not too long for wind or movement—equipment is not cumbersome for climbing or a day's plant-hunting excursion.



Goodsir Alplands. Photo A.O. Brigden

SUMMER MOVIES IN COLOR

By Lillian Gest

My experience with movie making in the Canadian Rockies began in 1928, when I took 2000 feet before seeing one shot projected. My pictures are much finer now, but ninety per cent of the improvement, at least, is due to improved film and projection and not more than ten per cent to experience. Beginners, take heart!

All my movies are 16 mm. and my camera in 1928 was the No. 70 Bell & Howell. Strapped to the horn of my saddle, it rode many miles over rocky trails and alpine passes. I believe this model, equipped with a turret head, is the best on the market still. I now use the 121 model, only because of size and weight. It is possible to carry the 121 everywhere, without making the trip itself play second fiddle to the photography. It goes into my rucksack with my raincoat, sweater and lunch! I don't always get a picture when I take it, but I always miss one when I don't! If you are getting new equipment, look at the newer 141 model which has a better magazine.

The Rockies are too beautiful not to take them in color. I have a Kodachrome haze filter permanently on my camera and on all extra lenses. Without it, distant scenes have a purple tint, which, however, is not noticeable in close-ups. All standard lenses fit on my camera by means of an adjusting ring and I highly recommend a telephoto of some sort. That tiny white spot in your picture which is a goat—oh, so near you, when you took it—would have been as big as life if taken with a telephoto lens. Those sheep which went over the sky-line, as you approached, will show up too. My four-inch lens is a good all-round photographic plaything. My larger one has distinct disadvantages.

Cutting down weight is important in the mountains and for a tripod I use a rock or tree. With a telephoto lens some support is essential. "Hold the camera steady" is good advice, which cannot be repeated too often. The smaller the camera the more important and difficult this is. When exercising, wait if possible for your breathing to slow down, your hand to become steady. For ordinary pictures, not telephoto, I hold my camera in both hands, against my nose and forehead; my upper arms against my body. Why let your elbows wave and tremble in mid-air? It is a good thing to check up on your steadiness several times during the summer to be sure you are not becoming careless.

The proper exposure is most important in Kodachrome movies. I am unorthodox in that I have never learned to use an exposure meter. One of our members told me it was a good guide for guessing, but I do my guessing unaided. After all, there are not so many stops to use on any camera. On brilliant days, I use the 11 stop, only for pictures of mountains and sky. If it is the Bow valley from the Banff Springs Hotel, I would open the stop to 8. If the sun is down, so that considerable part of the picture is in shadow, I would open it still more, to 5.6 or even 4.5. The directions furnished with each reel of film are good. I check myself quite often by re-reading them, noting particularly the position of the sun and the color of the subject. If in doubt, I use the larger stop. Do not take pictures into the sun and avoid, as far as possible, large masses of spruce trees as a background. Greens still come out poorly, but water, sky, sunsets and close-ups of people come out well. The film too, is constantly being changed to eliminate defects. The best directions for exposure I have had came from Clifford White and as he is to write for this symposium I hesitate to say more about exposure.

Several nice trick pictures can be made easily. With a camera which can take one frame at a time, you can make clouds drift past the peaks and sunsets really set. Climbers, too, can dash up cliffs with amazing speed and comic effect. Beautiful pictures can be made from the back platform

of the train up from Calgary, especially of the "Three Sisters" at Canmore and of the train as it rounds the curves. Hold the camera upside-down while taking some of these pictures; then when developed, cut out and reverse this part. On projection, you will find you have filmed your trip back to Calgary from the cowcatcher of the engine!

My best animal pictures have been taken on the road from Banff to Lake Louise. There will probably be ewes and lambs on the swampy ground of Vermilion lakes, and rams at the old trap. The elk herd frequent Massive and Castle; moose last summer were feeding on the grass roots of the lakes. Beavers are plentiful, but the best dams are just east of Massive where the stream parallels the road. Stunning reflections will be found on the lakes above the dams. Goats sometimes are not very high above the road. If the sheep won't pose for you, some rock salt from "Dave Whites" will tempt them out on a picturesque bluff. One afternoon, I put some out and the next day seven sheep ate salt from 9 a.m. to 3 p.m.; one bedraggled ewe stayed till dark. The bears frequent the dumps quite regularly, especially in early and late summer. The dump at Banff generally boasts one pair of cubs a year. There are two dumps near Louise, the one off the Yoho road being the more popular, due no doubt to the fact that there is no incinerator there.

For climbing pictures, I find the Club camp the best field. There is always another rope along to photograph. The camera directions say "don't pan" but I always take panoramas from the summit. It must be done very slowly and steadily and you must be resigned to using up film. If you are not resigned, don't pan. Know what you want to include before you start; let your camera rest just a moment on the first shot before moving it slowly around.

Use your film generously on brilliant days. Rain or forest fire smoke will soon come. By no means miss the sparkling days after a storm or when it is clearing.

My closing advice is: Take time to set your camera correctly but don't be meticulous and slow; your picture may be gone or your companions cross!

THE 1939 SKI CAMP

By Norman H. Brewster

The second Ski Camp of the club was held at the Memorial hut, from April 8 to April 17. About twenty members assembled in Jasper on Good Friday, April 7, and were entertained that evening at the home of G. Morris Taylor by moving pictures of ski-ing and color slides of the mountains of Jasper Park.

Motoring, next morning, to the View Point on the Edith Cavell road, the party set off with skis on shoulders at 11.15 a.m. After four miles of easy walking down the Astoria River trail skis were put on and the remaining eight miles completed in leisurely fashion, most of the party arriving at Memorial hut about 5.30 p.m.

After supper a few insatiable enthusiasts went for a trial run. This "tired but game" spirit was the cause of an unfortunate accident, L. Kolbeg of Chicago injuring his knee while turning in the heavy, new-fallen snow so badly that he had to be taken to Jasper two days later.

On Sunday morning the members gathered on the practice slope near the hut, and soon the valley re-echoed with stentorian bellows of "Bend the knees! Keep those tips together! Forward the knees!" as ski-instructor Reg Reault got his new class under way. It was barely possible to detect, in the din, the more subdued creaking of agonized joints, and it is probably mere coincidence that an avalanche of ice broke away from the glacier on Outpost Peak that same night.

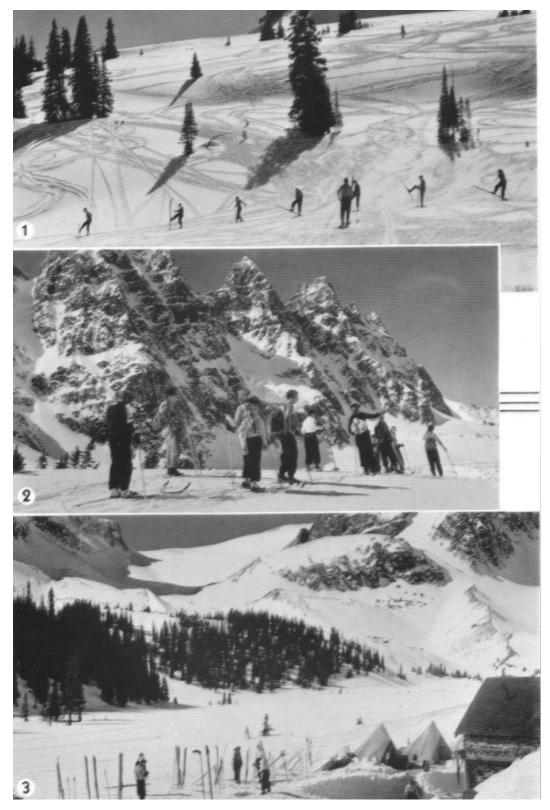
In the afternoon most of the members made their first acquaintance with the Fraser glacier, climbing its preliminary slopes to enjoy some really exhilarating sport in new powder snow.

From a purely ski-ing point of view this glacier is certainly the piece de resistance in the varied terrain surrounding the Memorial hut. Its smooth, unbroken expanse offers a descent of over 3000 feet in slightly more than two miles distance.' Yet it is so safe that beginners can enjoy it equally with experts. Best of all, its slopes bring the skier to within half a mile of the hut. Veritably, a skier's paradise!

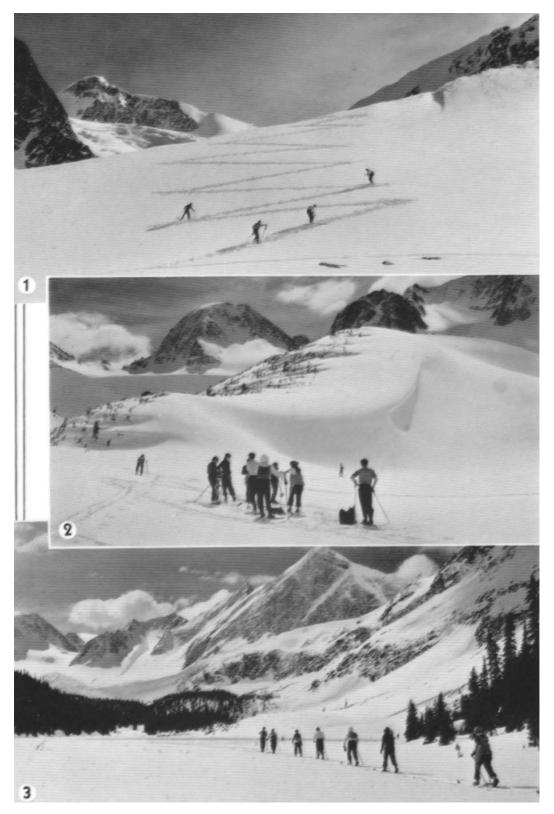
The following day (April 10) a party of six (Miss Mary Cassels, Miss Ethne Gale, Miss Jean McDonald, Dr. W. E. Mitchell, A. J. Cooper, N. H. Brewster) left the hut at 7.30 a.m. to climb McDonnell Peak (10,700 ft.). Ascending the whole length of Fraser glacier, the col, some 1200 feet below the peak, was reached at 1.15 p.m. There the skis were left and the climb continued up the southwest ridge leading directly to the summit. The ridge was covered deeply with new snow and was interesting enough to provide a most enjoyable climb. The summit was reached at 2.50 p.m. It was not a clear day, but the clouds were high, and as they alternately lifted and fell a good view was had of Mts. Fryatt and Brussels and scores of other peaks on all sides. Far below, a line of black specks on a smooth sea of white showed other aspiring members of the camp struggling upward to the col.

Leaving the summit at 3.30, the col was regained at 4.30. There, skis were put on, bindings adjusted and some very deep breaths taken before pushing off on the steep downhill plunge. After a glorious run in velvety powder snow the hut was reached at 5.30 p.m.

An unhappy sequel to the climb was the snow-blindness suffered by A. J. Cooper. As the day had been generally cloudy, he had only worn his sun-glasses for a small part of the time. Next day, after being out in the bright sunshine for a few hours, he was forced to return to the hut and there he remained for two days, during one of which he was completely and painfully blind.



(1) Ski School At Surprise Point. *Photo G. Morris Taylor*(2) On Surprise Point, Looking Towards The Ramparts. *Photo G. Morris Taylor*(3) View Of Camp, Looking Towards Fraser Glacier. *Photo G. Morris Taylor*



(1) Zigzagging Up The Para Glacier. *Photo G. Morris Taylor*(2) Among The Moraines At The Foot Of Eremite Glacier. *Photo G. Morris Taylor*(3) Approaching The Eremite Valley. *Photo G. Morris Taylor*

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For the next three days the weather was brilliantly clear. Trips were made to the Eremite glacier, Surprise Point and Amethyst lake, and in the evenings short excursions to the slopes above Outpost lake were popular. Good ski-ing was also had on the lower part of Para glacier, close by the hut.

On April 14 a party (Miss Gale, Miss McDonald, Dr. Mitchell, A. J. Cooper, N. H. Brewster) made the first ski ascent of Thunderbolt peak (8745 ft.), leaving the hut at 6.45 a.m. and returning at 1.45 p.m.

The climb was easy and uneventful and its chief object, that of gaining a good view point was defeated by a heavy snowstorm.

The remaining days in camp were clear and sunny. A minimum temperature of zero was noted on April 16. Spectacular sunburn effects appeared, and the rosy radiance thereof was marvellous to behold; ingenious masks were finally devised which somewhat mitigated the glow. On April 17 the camp broke up, the first members leaving about 8.15 a.m. and arriving at the View Point at 12.30 where they found cars awaiting them. Only the necessity of catching the afternoon train from Jasper prevented them from loitering on the trail to enjoy new and splendid views of the Fraser group and Throne and Old Horn mountains which had been obscured by snow clouds on the inward journey.

Thus ended a very pleasant camp. All will remember gratefully the kindness of G. Morris ("Tempo") Taylor who was in charge of the camp, and of Reg Reault who labored all day to teach the unteachables, and at night repaired and adjusted faulty equipment efficiently, if not noiselessly.

The idea of having a ski-instructor at camp was a most profitable one. Some of the members had done very little ski-ing and their technique was barely equal to the kick-turn, yet, after a few days of hard work in the ski classes, all could negotiate the glacier slopes in slow, controlled stem-turns.

Some members did not stay for the full duration of the camp, but at its most populous, twenty-tour persons were present. Those who know the Memorial hut will realize that things must have been a bit stuffy, even though three Logan (or is it Everest?) tents were erected outside for sleeping purposes. Despite cramped quarters, however, everything went smoothly and agreeably. The most noticeable lack was the almost complete absence of any kind of dried fruit. It should be noted that this is written by one who was present at the first ski camp at Lake O'Hara, and was perhaps spoiled by the incredibly good catering on that occasion.

All will retain happy memories, of climbs, of thrilling schusses, of a sunlit world which contained no newspapers and no radios, of drinking seven cups of tea with no ill effect. To this good camp a regretful farewell is bid, but to the Memorial hut let it rather be "auf wiedersehen."

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IN THE FOOTSTEPS OF MACKENZIE

By RAYMOND T. ZILLMER

About five years ago I read Mackenzie's Diary. It made an impression that would not be put aside. There was always with me the thought that I must take the overland pack trip of Mackenzie.

In the United States the idea is quite prevalent that Lewis and Clark were the first to cross the North American continent. Not many Americans know that Mackenzie crossed twelve years earlier, for the name "Mackenzie" is associated with Mackenzie river and Mackenzie's trip to the mouth of that river.

Mackenzie established a trading post for the North West Company, in the fall of 1792, well up on Peace river. As soon as the ice broke the following spring, accompanied by another Scotsman, six French Canadians, and two Indians, as hunters and interpreters, with 3000 pounds of supplies, he started up the Peace in a twenty-five foot canoe. With great hardships, they worked their way up the Peace, the Parsnip river, and a branch of the Parsnip which took them high into the main range of the Rockies, so that they made unnecessary altitude. They portaged across the divide to a branch of the Fraser, and proceeded down the Fraser. Mackenzie was satisfied that the Pacific Ocean was at the mouth of the Fraser, but the hostility of the Indians and the reports describing the river below, together with the fact that he had learned of an overland route to the sea, caused him to abandon the Fraser route. Therefore, he returned up the Fraser to a point where the West Road, (Blackwater river or Euchiniko river) enters it from the west.

Just above the West Road was an old Indian trail which led west up West Road basin to the source of the West Road, over the divide to Dean river basin, south up a branch of Dean river to its source, and across the mountains to Bella Coola river which flows into the sea. Mackenzie took this trail to Bella Coola river. It was a well established route to the sea, one used by coast and interior Indians to trade with one another.

It was our purpose to follow this trail from the Fraser to the Bella Coola.

During the winter I had extensive correspondence concerning this overland route, but I secured almost no reliable information. Mr. T. A. Walker, manager of Tweedsmuir Lodge, Bella Coola valley, wrote: "This is an extremely arduous trip, the trails are not well defined and the country only very thinly populated by Indians."

Our experience confirmed this, and we learned in addition one other important fact, namely, that there was much more timber than in the time of Mackenzie, so that we had almost no open views. This made the task of following the route more difficult.

From our investigation we came to the conclusion that no one since Mackenzie had duplicated his trip. Closest to duplicating it was a trip made with horses by George M. Dawson of the Geological Survey, in 1876. (See Geol. Sur. Can. Rep. Prog. 1876-7, pp. 20-34).

We used several maps. The map of Central British Columbia, Department of Lands had only occasional contour lines, omits many natural features, and its service to us was limited because of its scale of 15.76 miles to the inch. The Pre-emptors maps (sheets for Fort George, Nechako, and Chilcotin, three miles to the inch) were of more help, but these maps are without contour lines and omit many lakes and other features. The map of Tweedsmuir Park, six miles to an inch, has many errors and deficiencies.

My companion was Lorin Tiefenthaler of Milwaukee, more than six feet in height, over two hundred pounds in weight, strong, healthy, considerably younger than I, and a splendid companion. He had never been in the western mountains before and was without any experience in back packing, but he learned quickly.

Mackenzie was thirteen days doing the overland trip, so we arranged our food for thirteen days. Every bit of food was measured and weighed for every meal on thirteen days. The ration list was based on many years' experience. However, my wife was concerned about Lorin. She was sure that he would eat more than I, and so I added slightly to the portions. Our packs were each to weigh exactly fifty pounds. Imagine my surprise when I found that mine weighed fifty-five pounds and Lorin's also. The mystery was explained when we emptied our packs the first night. Lorin pulled out a can of steak, onions, and gravy, another of roast beef and gravy, and can upon can. This was highly unethical, yes, immoral, considering that our regular ration list consisted of such things as rice, oatmeal, and macaroni. There was only one thing to do, namely, to consume the offending canned goods as soon as possible. We wasted no time about it.

We carried no gun. We carried an axe and rope to build a raft, for the geological report said: "The river [Blackwater] can only be crossed in the vicinity [of the Cluscus Lakes] by rafting." The Dean river crossing seemed even more difficult.

On June 380, 1938, at 2.30 a.m., we arrived at Prince George, where we were met by R. F. Corless Jr., who freights for the Hudson's Bay Company on Parsnip and Finlay rivers. After buying a few more supplies, we loaded our packs in a thirty-foot, flat bottom boat equipped with a powerful detachable motor. The water in the Fraser was high and fast, so that we made the sixty miles down stream in four hours. About half-way down we came to Fort George canyon, around which Mackenzie portaged in four hours, but through which we went in about as many minutes in a thrilling ride without even a near mishap.

One of my greatest concerns was to locate the Mackenzie trail where it left the Fraser. The Pre-emptors map had no trail marked, and the location on the other map was only approximate. My correspondence elicited no help and Corless did not know. My readings placed it a mile or so above the West Road, near a slough, or little river. When about three or four miles above the West Road, we saw a man panning gold. We stopped and asked him the location of the old Indian trail to the west. He answered that while he had come along that trail, he could not find it from this end, but that two miles further down was a gold panner, Frenchy, who could take us to it, for Frenchy had lived there for two years. What a stroke of luck! Down the river we met Frenchy and his three yelping mongrel dogs. Mountain lion dogs he called them, because of the mountain lion they had treed and he had shot the year before on this very place. Yes, he knew the trail, but why use it when we could save more than ten miles by taking the new trail. This spot is a level bench about fifteen feet above the river, and is marked on the map—"Indian Reserve No. 1." Frenchy led us along this untreed bench, through the ruins of an ancient Indian cemetery, through a tangle of trees and bushes, across a muddy slough, and he pointed up the hill at a faint trail.

It was 4.30 p.m., we were not in condition, our packs were at their heaviest, and the way to the plateau above was very steep, and, just as Mackenzie did, we found the next hour the hardest on our trip. Hereafter we were to have many experiences such as Mackenzie related in his diary.

We wanted to camp up on the plateau. I had asked Frenchy whether there would be water. He replied, "Yes, and if not, dig in the mud until you reach water."

But we found no water. Holes, yes, but dry as dust. Seven, eight, and nine o'clock passed. We were very tired. At about 9.30 I found a small, stagnant, shallow pool among the trees. It was

full of debris, mosquito larvae, and tasted of decaying vegetable matter. I strained it through a clean cloth and drank it. Lorin could not bring himself to drinking it. We had only soup and apricots. We expected to be sick that night from the water. However, we slept well, and the next morning we enjoyed a meal cooked with this water.

We had much trouble getting water when we needed it. We went northwest and did not find water until 1.30 in the afternoon when we reached a little stream coming out of Punchaw lake. There we ate and bathed. After crossing this stream, we reached what is marked as a north and south road between Prince George and Quesnel. The road is no longer used, has no settlers except near Prince George, and is the ancient trail of Mackenzie. We followed it south to the West Road and camped that night at a lake east of the trail.

The next day we were to suffer again from lack of water. After breaking camp we had no water all morning, although it was very hot. At one o'clock we stopped to eat apricots and raisins, nothing else. Here, below us, two or three miles away, was the dashing West Road with its cool, fresh water. Probably near this very spot Mackenzie stopped and looked at the West Road, and, with his whole party suffering with thirst, determined that the distance was too great, the descent too steep, and the obstructions too many to warrant the time and effort required to get a drink.

At noon we reached the Telegraph road and followed it for a few miles until the road turned north. Here we found and took a trail that led west and followed the West Road a mile or so to the north. We passed some fine, large trees on the first two days, some of them five and six feet thick, some burned completely around the bottom, but standing alive and alone in the midst of smaller trees, every one of which was burned and dead. After that the timber was small and of no commercial value.

At 2.30 we had not yet reached water. Among the extras "smuggled" in by Lorin was a bottle of brandy for emergencies. During the economic depression Americans have been accustomed to declare emergencies to justify this and that, so, while emergencies on back-pack trips ordinarily meant illness, broken bones and the like, we then and there had a session and solemnly, by unanimous vote, declared that an emergency existed. A portion of the emergency rations was accordingly consumed. We found it very easy to declare "emergencies" thereafter.

By this time we realized that the thickly growing trees would make it difficult to determine our route, for we saw almost no open country at any time, and, if open, it was marshy. And soon we were to realize that we would see no Indians, whereas Mackenzie travelled with Indians most of the time, met them almost every day, and learned the route from them. We saw no Indians until the twelfth day, and no whites on the entire trip.

The next day we continued west, crossing the Telegraph range, two low mountain ridges through which the West Road cuts. When we camped that evening, we were uncertain of our position. The Pre-emptors map showed a trail branching off at our right, another trail a mile farther, and a third trail two miles farther. Our own trail swung to the left and the three other trails ultimately merged. If we could discover the first or the second of these trails, we could save a considerable distance. We never did.

About nine in the morning our trail led into a clearing, apparently a deserted lumber camp, for there were abandoned buildings and trails all about us. There were so many trails that it was quite confusing. We followed many of these. Some led to outbuildings, others to pasture lots. We wasted much time. Finally we eliminated all but two trails. One led across a large bridge which we did not then recognize as a bridge across Euchiniko river; the other continued north of the Euchiniko. I dropped my pack and followed the north trail for four miles. Its course was so irregular

and led so far to the north, that I determined that it might be a trail used in logging operations, although it might also be the correct trail. It is now my opinion that it was the Mackenzie trail. But we returned to the other trail and crossed the bridge over the Euchiniko, then not realizing it was the Euchiniko.

After crossing the bridge, our trail led almost due south for a few miles. This disturbed us. At noon we came to a trail leading to the right, north and west. We took this trail and continued, with great doubt, however, as to our route, for we could not find on our maps any of the many lakes which we were passing. That night I slept very little because of the fear that we would have to return, but I said nothing of this to Lorin. We could continue two more days, I decided, before turning back.

The next morning a pelican rose from the lake and I was satisfied that we were near Pelican lake, marked on both maps. If so, we were not far north of our route. However, after continuing an hour, we came to a large river at our right. We could not understand this. The river which we would have to cross to get to Pelican lake should be on our left. Then it gradually began to dawn on both of us that we were south of Euchiniko river. While it was a very good trail, it was a trail that was on neither map.

And so it proved to be, for at noon we reached a lake with a bay on the north and an inlet on the west side. This lake was on one of our maps. We had gone south of the Euchiniko, Mackenzie north of it. For less than a day we had been off his trail, but now we were on it again.

The next noon we passed Kluscoil lake on our left. Across it was the conspicuous Kluscoil Knoll, a mountain one can see for a long time from many directions. Soon we again reached the West Road, which flows through Kluscoil lake. We rested on the river bank and lunched on rainbows caught there. A moose stepped into the river nearby and gazed at us a long time. It was only after repeated shouting that we were able to stir him into action for the benefit of our movie camera.

We followed the river west and southwest, until we reached the large Euchiniko lakes. Two-thirds down the first lake is Indian Reserve No. 4, consisting of a farm with log buildings and fences. But no persons or animals were about, only a lean, mewing cat. Near the west end of the lake was a large raft, too large and heavy, and too high on the bank to launch. Somewhere in this vicinity Mackenzie must have crossed to the south of the West Road. The Pre-emptor map marks the crossing at a narrows east of where the West Road widens out to form the second of the Euchiniko lakes. We found a spot which looked like the crossing, but it did not seem to have been used recently. The building of a raft at this point presented difficulties because the precipitous slope dropped directly into deep water.

Beyond the second lake the other map showed a ford marked as the Mackenzie crossing. We continued, and at night camped just below the ford. Here I had fishing such as one seldom experiences. With a casting rod of which the top section was missing, and a small bass plug, I fished three pools adjoining fast water. Approximately twenty casts netted fifteen bites and ten rainbows weighing about two pounds each. On one cast I caught two fish on the two hooks of the plug. I never fished after that for it was too easy, and besides, we did not have time for it.

We had expected to build a raft to cross the West Road, but, to our surprise, we forded the stream in the morning without any difficulty.

Soon we reached the second of the beautiful Kluskus lakes. At the north side of this lake was considerable pasturage, and at the west end was an Indian village with many log buildings, including a large church, also built of logs. On the porch of one building was a huge dog who

did not stir when we passed. We heard the sounds of someone erecting a log building, but we hurried through the village without seeing anyone. The village seemed deserted. At this very spot Mackenzie found the Red Fish (Chipewan) Indians, who were clean, healthy, and superior, and lived in comparative comfort. The cemetery showed a curious mixture of Indian traditions and Christian usage. But where were the Indians, for the buildings were in use?

We lunched at the third beautiful Kluskus lake. That afternoon we traversed marsh country of which Mackenzie wrote. In mid-afternoon we forded Kushya river, only to see a bridge nearby. Here was an Indian ranch. It was deserted except for another emaciated cat which persisted in walking almost under my feet. I feared stepping on it, but the fear was needless, for one cannot, even intentionally, step on a live cat. Our route then followed a ridge south of the ten-mile long Tsacha lake, which we could not see. We walked on this ridge until 8.30 without reaching water, and then stopped and crawled into our sleeping bags without eating.

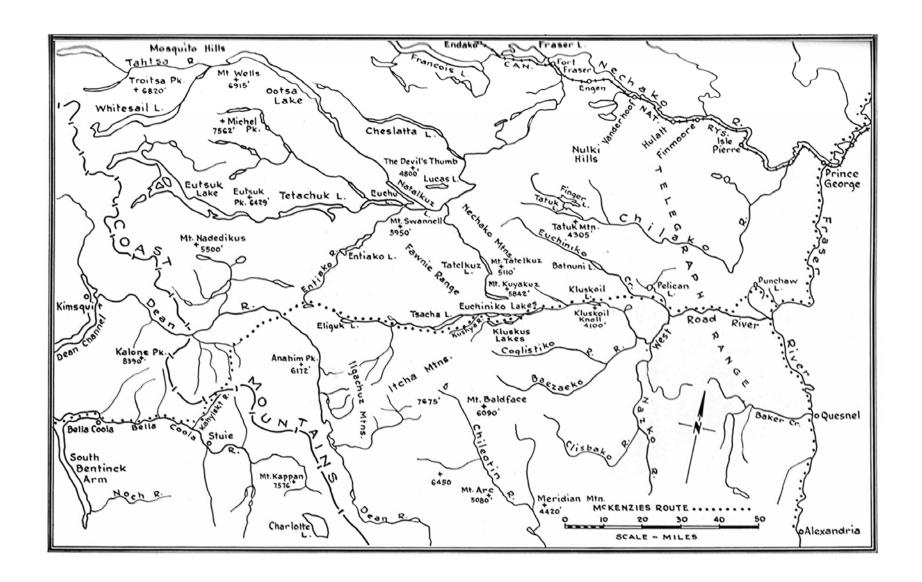
We were up at 6 and by 8.10 reached the end of the ridge, and water. We prepared a meal, our first in twenty hours, and to us it was a luxurious banquet. The many camp fire spots showed this to be a favorite camping spot for Indians. We were beginning to see snow-covered mountains, although for the most part we were still hemmed in by trees, principally small trees, such as spruce, jack pine, poplar, and a few birch.

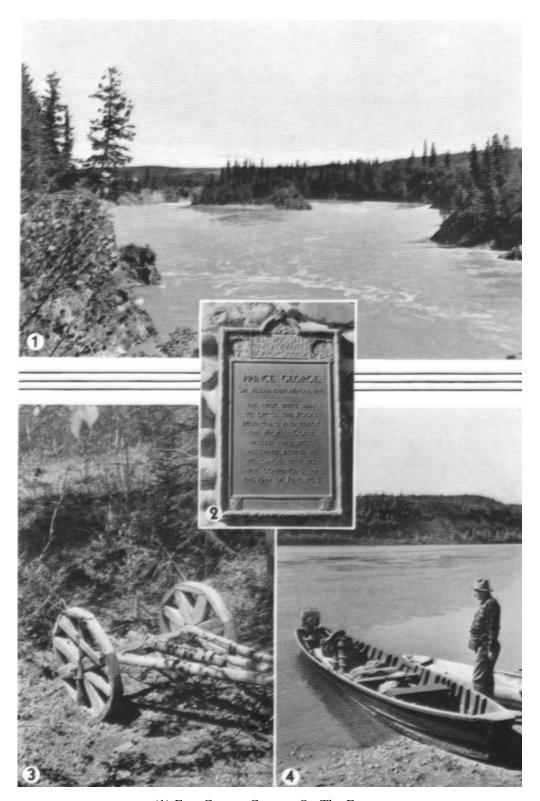
Shortly after noon we crossed a stream on the burnt timbers of a bridge. Here we saw a sign reading: "Bella Coola 121 miles." It was our ninth day. To reach the Bella Coola road, ninety miles away, we had to average twenty-two and one-half miles a day in the next four days or we would miss the boat and be compelled to wait a week for the next boat. We were shocked. We thought that we had been going nicely, but apparently the distance by trail was much greater than the map indicated, much further even than we had anticipated, allowing that a trail would become longer each year, since Indians now do not remove obstructions in a trail but go around them. To increase our speed we began to lighten our packs by throwing away whatever was not essential, a loaf of bread, dry milk, and half of the rope, although we still had the Dean crossing ahead of us.

A short distance farther, the bridge across a sizeable stream of fast water was so burnt that we could not cross on the timbers that still remained. We were able to ford the stream higher up, but in crossing we both stumbled and almost immersed our packs. We then walked through badly burnt country, and at 6 o'clock passed a dilapidated Indian ranch. One of the outbuildings was filled with many skins, mostly moose, and over the branch of a nearby tree hung the skeletons of three wolves. At 7 o'clock we made camp during a heavy rain, under a few green trees, the first we had seen for some time. For several days it had been raining every afternoon between four and seven.

We were near the headwaters of the West Road. We were up at six, and at nine we passed another Indian ranch without seeing anyone. We could see more of the snow-covered mountains, but we were still in timber, most of which was dead and ghastly white. After lunch we made altitude and passed Eliguk lake, but we were high above it when we saw it in the distance.

Again we were troubled with lack of water. We had hoped to camp at a lake just east of the divide, but the trail apparently was south of the lake, for we never saw it although we heard a loon not far away. We continued to a river marked on the map and reached it at 8.20, but it was dry. We were now in the Dean basin. A little farther on we passed an old Indian cabin with an eight-foot overhanging roof forming a porch over the front. A little beyond, the trail led into a marsh where we found stagnant water, but the trail disappeared in this marsh. We were anxious to find the trail before camping, although it was almost dark. Across the marsh were blazed trees and a corral, but no trail. We retraced our steps and followed other trails, but decided against all of them. It was





(1) Fort George Canyon On The Fraser.

- (2) Tablet On Monument At Prince George.
- (3) Used For Portaging Around Fort George Canyon. Made Entirely Of Wood.
 - (4) Our Boat Down The Fraser.

perhaps after 9.30 when we made camp at the edge of the marsh. We had gone twenty-seven miles that day. We were very tired and worried about the route, although we were near Ulkatcho, a large Indian village. We were in trees, on a flat divide, and could get no distant view. Our fatigue dulled our perception and, with the darkness, made it impossible to find the trail. I did not sleep well that night, for I worried about the trail.

In the morning, while Lorin was cooking, I went out to scout the trail. I found it very easily, principally because it was light and I was alert. It followed the left side of the marsh.

At noon we went through Ulkatcho without seeing anyone. It is delightfully situated, high over a beautiful lake, with the snow-covered mountains in the distance. We had some difficulty in finding the correct trail out of the village. The main trail, well beaten and dusty, led west by northwest, but we took the less used trail going southwest.

That afternoon our trail led through several marshes. We lost much time and energy. At one of these marshes we made a mistake. The trail we followed went west, northwest, and even north. We were shocked. It took much determination to continue on this trail when the general direction of the correct trail was southwest. Much to our relief the trail finally turned west, southwest, and south. Apparently, we followed a half circle around the regular trail.

At about 6.30 we arrived at a place much used as a camp site, for all about were fireplaces, debris, saddles cached in trees, and a moose recently killed. We were again on the main trail. Over a little rise we saw Dean river, wide, deep, and fast. We were dismayed, for we had counted on a ford. To build a raft would cause so much delay that we would surely miss the boat. Further down the river I saw what looked like a rapids and when we reached it we saw, to our relief, that it was the ford. While the water was quite deep, we got across without difficulty, although later, people acquainted with the country, expressed surprise that Dean river could be forded without horses. Not anticipating further use for our rope, we left it behind.

We were up at five. It was the twelfth day. We were still convinced that we could finish on the thirteenth day or early on the fourteenth. Shortly before noon we met Indians camped on Squiness lake. They were Joe Cahoush, his old father, so thin that his ribs showed, and reputed to have made money through canny trading, Joe's wife and their baby, Joe's sister-in-law, Felix ("crazy Felix," some called him), a bachelor friend of Joe's, and several others. They were eating suckers and other fish netted the night before, and one of the women was handling newly baked bread that looked very appetizing. We visited with them for half an hour. Later, all named above, except old man Cahoush, passed us on the trail, on horses of course, for Indians do not walk. About six we caught up with them at a canyon in which they were trying to spear salmon, but without success. They were without food and Joe wanted us to catch some of the large trout for them, but we declined for we could not linger. After eating dinner nearby, we continued walking until dark.

We were now in Tweedsmuir Park, on a wide trail newly cut as far as the Tanya lakes (Long lake to the Indians) for the Governor General's trip into Tweedsmuir Park. But the Governor General flew in and so he never used the trail. Debris was piled high at the sides of the trail, so we camped on the trail. We congratulated our selves upon having the finest bed of the trip—deep, comfortable moss. But we were soon disillusioned, for the moss deceitfully concealed large roots. We settled into the moss, deeper and deeper, until we were held in space by a network of the largest roots. In the morning our bodies displayed designs almost as accurate and helpful as the Tweedsmuir Park map.

On our thirteenth day we arose at five. We had forty miles to go to reach Tweedsmuir Lodge, two and one-half days pack trip by horse. But we still hoped to reach it in time. We made

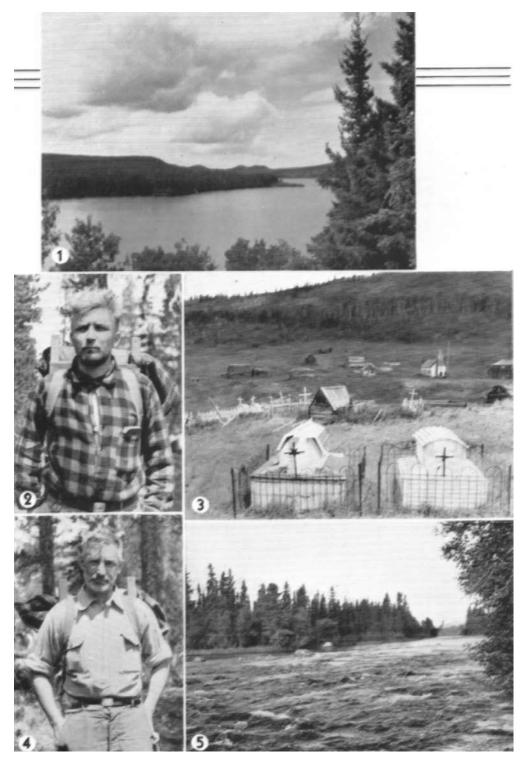
fine progress until eleven in the morning when we lost the trail after it entered a marsh. We never found it again, although we were near the pass. We were at the end of the valley, a branch of the Dean. We first went to the right, on a trail which we abandoned when it led to a cirque too far to the west and, apparently, cut to hunt goat. We next went to the left, expecting to cross the trail. We did cross trails, but they would all gradually fade away. At last we made for a pass to the southeast, high above timber and in snow, and for a moment we rejoiced, for from the pass we saw a horse going down a valley which led to the south, but on getting into the valley we found no trail and the horse became a moose. We continued down this valley, but it finally swung southeast and even east, whereas the true route was west of this valley, but east of Kahylskt R. (Burnt Bridge creek). So we abandoned this valley and climbed to the top of a mountain to the south, one that gave a good view. Before us was a big alpine meadow, farther south were low mountains that we would have to cross, and in the distance lay the ice-covered higher mountains south of Bella Coola river. To the west the alpland extended much farther, and in the background were ice-covered mountains, among them, Mt. Cresswell, Kalone Peak, Forward Peak, and Pyramid mountain. In the alpland to the west were three lakes that looked like three lakes on the Tweedsmuir Park map. It was six p.m. If we could reach these lakes that day, we could still catch the boat. We hurried through wet and beautifully flowered meadows. There were lupins of a luxuriance and color such as I had never seen, blue, pink, blue and white, pink and white, and pure white. At nine o'clock, the lakes were still far distant. They had not looked far. We were licked. From the lakes we might have made it, but not from here.

Reconciled to defeat, we got up late the next morning and reached the lakes at about eleven, but could not find the trail. The Indians had predicted that we would have difficulty in locating the trail through this alpland. We saw no cairns. We found out later that we had crossed the trail twice as we expected we had, for we had gone both west and east of the trail in our search for it.

We decided to take the most likely looking pass to the south. However, it led to a hanging valley, high on a mountain, but by dropping east to the next valley, we were in a valley which drops to the south. Our hopes that this valley was the correct route were soon shattered, for we found no trail or blaze. Probably no one had ever gone down this creek before. The valley sides were steep, a slope of about fifty degrees. For a day and a half we went down one foot in five. The creek was a series of falls. We got into this valley after lunch. For a time the going was easy, until we got to the bushes and the trees. The next day and a half were a fight, literally, step by step. It was typical British Columbia growth. We stayed in the river as much as possible to avoid the growth. When we left it, we pushed our way through walls of green. We had to hold onto the branches of trees, for when we least expected it we would drop down five or six feet. Walking ten feet without an obstacle, we considered an accomplishment. I remember one patch of devil's club extending high up the mountain side. It was from six to eight feet high and thirty feet across. We were compelled to pass through it. We finally succeeded. We walked a six-inch fallen tree which moved when we stepped on it, keeping our balance by holding to the leaves of devil's club, folding them inward to avoid the barbs of the inner surface. What if we had fallen and rolled down the mountain through this patch of devil's club!

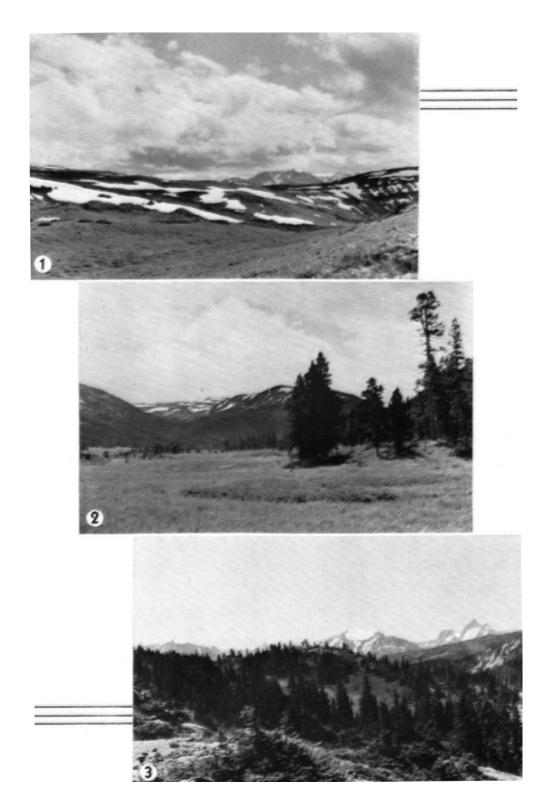
At about seven in the evening we found a level spot, big enough to sleep on, covered with the grass of many seasons, the only suitable spot we had seen. In the opening of the valley to the south was beautiful ice-topped Mt. Stupendous that had so impressed Mackenzie.

The next day difficulties continued. However, it was only a question of time and we would get through, providing we were not stopped by a canyon. Finally the canyons came—three of



(1) The First Euchiniko Lake.

- (2) Lorin Tiefenthaler.
- (3) Cemetery And Indian Village On The Second Kluskus Lake.
 - (4) Raymond T. Zillmer
- (5) West Road River Between Kluscoil Lake And The Euchiniko Lakes.



(1) Near The Divide Between Dean And Bella Coola Basins, Looking South.

Mountains in distance are south of Bella Coola.

- (2) At The Source Of The Branch Of Dean River, Before Crossing Into Bella Coola Basin.
- (3) Looking West Toward Mt. Cresswell, Kalone Peak, Forward Peak And Pyramid Mtn.

them. We got around two of them without great trouble. But the second one! We reached it about three in the afternoon. On our left the wall of the canyon went up straight for two thousand feet, almost to the top of the mountain. On our right the wall was not quite so steep, but it went up precipitously for about twelve hundred feet and then sloped off gradually, losing itself in the trees near the top of the mountain. The walls were perhaps eighty feet apart. Immediately ahead of us there was a drop in the canyon of about twenty feet. To the right was a waterfall, while to the left it was dry except for a trickle of water. The rock was too smooth to attempt a descent without a rope, for below was a mass of loose rocks of all sizes. Trees grew out of the wall on our left. We went along that wall for perhaps sixty feet, holding to the branches of trees. Among these trees was a cedar whose long whip-like branches reached almost to the bottom of the canyon. We let ourselves down one of these branches. By holding to the end and dropping a foot or two, we reached the bottom. In the canyon ahead were huge stones, five and ten feet in diameter, brought there by an unusual flood, we learned later.

Probably a quarter of a mile farther on the water concentrated in a V-like chute. A few hundred feet farther on, where the canyon turned left at an angle of about ninety degrees, the water shot forward into a basin forming a whirlpool. We considered this spot a long time. We were on the north side of it. Perhaps we could have crossed the chute. It was possible, but the rocks on the opposite side, to which we had to leap, were too smooth to trust. The wall on our side was now undercut. Lorin suggested swimming across the whirlpool, taking our packs across on a raft. That, too, was possible, but the available wood was unsuitable and we did not want to risk our remaining food and our cameras and film to the whirlpool.

After considering all conditions carefully, we decided to climb the wall on the north side and follow the edge of the canyon until we could again descend to the bed of the stream. The side of the canyon rose twelve hundred feet. It would be necessary to climb this height before we could proceed parallel with the canyon. This required experience in climbing and Lorin had never climbed before.

We had proceeded but a short distance when we wished we had tried the pool. Often we thought that we were blocked, but always a way opened up. Had it not been for the trees growing at strategic points, we could hardly have dared the ascent, for the rock was worn smooth by the water. I remember, particularly, two places. We were on a ledge and were climbing to another ledge directly above. To do so we had to force our way between two trees that were very close together. We managed only by removing our packs. There was another ledge, fifty feet long and one foot wide. A tree grew on it. Did the roots reach into the cracks of the rocks or did they merely run along the surface of the ledge? We could not tell. When I used the tree in climbing the pitch, the tree bent outward, lifting the moss-covered debris along the entire ledge. When Lorin came to this point, being heavier than I, the tree leaned out farther. From above, I tried to grab the tree, but it was beyond my reach. Luckily it swung back and soon Lorin was beside me without fully realizing that he had been in danger. After an hour and a half we reached the top. A mile or so farther on we were able to descend to the stream.

We slept that night in the creek bed, on sand from which the larger stones were removed. But we soon found that sand ticks were with us, so we didn't sleep. Neither did the ticks!

The next day, the sixteenth, proved easier. We had lost most of the altitude, but large rocks, ten feet or more in diameter, in huge jumbles, lay in our path. We crossed the stream many times because the other side always seemed easier. But we could not cross the stream wherever we wished, for it was now swollen by the water of many branches.

The Canadian Alpine Journal 1938

At about four in the afternoon we reached the road running along Bella Coola river.

For two and one-half days we had been continually descending. Our toes were constantly pressed against the front of our shoes. As a consequence, both of us lost the nails of our big toes. Our feet were badly swollen and blistered. Lorin lost thirty-two pounds and I fourteen. However, we had not experienced cold weather as we had expected from Mackenzie's account.

We had been on the road but a few minutes when an auto passed. It was probably the only auto that had passed on this road for a week. Out stepped well-armed constable Conway who looked at us suspiciously, especially when we told him we had come down the creek, suspicious, we learned later, because someone had been murdered a year or two before and the suspect had disappeared up the creek. We could have assured him that the suspect had not gone far up that creek.

When we met constable Conway, we did not know the name of our creek. We were amazed to learn it was Kahylskt river. Mackenzie had followed the high land to the west of the upper part of the creek and then crossed to the east side, perhaps half way down. We did not try to find the end of the trail on the east side. It has not been used for many years.

Mr. T. A. Walker at Tweedsmuir Lodge was most kind to us while we recuperated. Our clothes were rags, so we wore clothes he kindly loaned us until we were again completely outfitted a few days later. I have always wanted English flannels and here in this outpost I got them, and they were altered to fit me by a daughter of a pioneer settler of the valley, a settler who had come from Wisconsin, my own state.

The region south of Bella Coola valley deserves the attention of the mountain climber and explorer, for it is a frontier to both of them. Almost none of the spectacular mountains have been climbed.

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IN MEMORIAM

ARTHUR PHILEMON COLEMAN

1852-1939

Professor Coleman died at his home in Toronto on February 26, 1939, after an illness of three weeks. Born on April 4, 1852, he was thus in his eighty-seventh year. His mental and to a remarkable extent his physical vitality were preserved to the end. Indeed he had made preparations to leave on February 10 for an expedition to British Guiana.

His birthplace was at La Chute in Lower Canada, or more properly (in 1852) Canada East, where his father was stationed as Wesleyan minister. His youth was spent in a home of refinement. But the heritage of the pioneers was his, and few Canadians have so readily incurred hardships in the pursuit of knowledge. After a period at teaching, usual for ambitious young men of that day, he entered Victoria University at Cobourg and graduated in 1876. His studies, free from the excessive specialization of later times, tended to develop broad interests. But his mind definitely turned to the sciences under the influence of a great teacher, Dr. Eugene Haanel, a product of the universities of a Germany which was still a nation of scholars. It was largely as a result of his association with Haanel at Victoria that Coleman repaired to Breslau, where he received the degree of Doctor of Philosophy in 1881. He returned to his alma mater as Professor of Natural History, and continued in this position until Victoria entered into federation with The University of Toronto, when the teaching of the sciences was surrendered to the University. His active teaching at Toronto extended from 1891 to 1922, first in The School of Practical Science, and then as Professor of Geology in the Faculty of Arts, where he was honored with the deanship in 1919. After 1922, as Professor Emeritus he was free to devote his full time to study and travel and writing.

Professor Coleman was equally distinguished in the realms of practical and pure science. His work on the Sudbury mining area, first published in 1905 and revised in 1913, was recognized the world over, and his map of the nickel intrusive is said to have been more widely circulated than any other geological map ever printed. As early as 1906 his attention was turned to glaciation by a startling discovery in the Cobalt area. It was twenty years, however, before he published his great work, Ice Ages, Recent and Ancient. He was hard at work on completing another volume on the Pleistocene epoch when his hand was stayed at his desk. In this volume he was gleaning the ripe fruits of investigations in nearly every corner of the globe, including no less than five expeditions into the wilds of Mexico, Central and Southern America undertaken in his eighties.

The many honors that came to him in his long life need not here be set in array. They were not permitted to disturb the even tenor of his life, or to lift up his heart to vanity. His friends in the Alpine Club of Canada will expect, however, to have recalled to their minds something of his connection with our own mountains. This has involved turning again to his work, The Canadian Rockies, New and Old Trails. Although published twenty-eight years ago, it still stands as one of the greatest, and possibly the most interesting of all the narratives of exploration and climbing in the Canadian mountains. At that time he had been asking their secrets for more than a quarter of a century. Indeed it was in 1884 that he quitted the "Sumit" Hotel at the end of Steel near what is now Lake Louise to ascend his first Canadian peak:

"After years of humdrum city life in the east, the assembly of mountains, lifting their heads serenely among the drifting clouds, gave one a poignant feeling of the difference between man's world and God's. Here was purity and dignity and measureless peace. Here one might think high thoughts. Below in the grim valley, engines puffed, mule- teams strained at their loads, sweaty men delved in the muck, and man's work, looked at from above, did not seem admirable under its mantle of smoke."

During these summers in the mountains, his wide interest in nature carried him far beyond rock formations and the antics of glaciers. Scores of water colors, freely bestowed on his friends, have caught and retained the beauty he found everywhere beyond the range of forest fires. Yet there was the malignant as well as the kindly in nature.

"Here I had my first encounter with that torment of the moister forests, the devil's club—slender, withy, and graceful, but the most diabolical plant in America, lurking among the ferns to fill one's hands with poisonous needles. We advanced steadily through the lower woods, treading down the tall maidenhair ferns and seeing nothing of the world for the trunks of the trees. While we were sitting at lunch beside our fire a humming-bird poised itself a few feet away, then took courage and settled on its dainty nest, so covered with lichen as to look like a knot on the branch where it rested."

Later on in the same chapter we have that graphic description of the cunning way in which the box-elder besets the traveller who essays under pack to cross or ascend its sinewy stream as it follows the course of successive snow-slides.

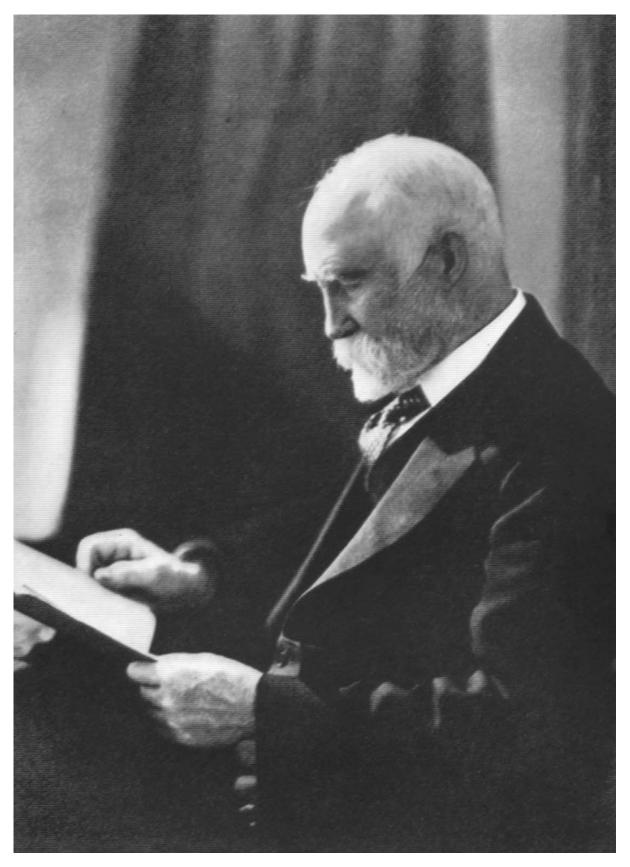
Exploration in these early years before trails were well defined or such topographers as Wheeler and Bridgland had filled in the finely contoured maps we now enjoy, was a matter involving much uncertainty and privation, and at times considerable danger. It was not without reason that the ancients depicted their rivers as bulls, and Dr. Coleman with his Ontario failing for travel by water not infrequently found himself playing the part of toreador. Two adventures stand out particularly, in spite of what one feels is a tendency to understatement—the running of the Surprise rapids on the Columbia in an improvised raft, and the swimming of the Athabaska beside his horse. The former incident took place in 1888 when he was in search of those absurdly fraudulent "giants" of the Rockies, Brown and Hooker, which, one seems to remember, actually found their way into the school geographies. He had decided to ascend the river by canoe from Beavermouth with a companion who "had excellent reasons for going. He had never paddled a canoe, nor climbed a mountain, not shot a grizzly, and earnestly desired to do these things." Disappointed in the ability of their canoe to ride mountain torrents, and exasperated by the difficulties of portaging without a trail, they resolved at the rapids to wrest progress by a raft constructed of stranded logs, a few spikes and their climbing rope. They were soon in the maelstrom.

"It was nonsense to paddle any more, for our raft was revolving end for end, and then a great billow fell upon us sideways and the raft overturned. There was a moment under water, snatched and tugged at by unseen fingers while I clung to the binding rope, and then I dragged myself upon the upturned bottom of the raft and saw Frank just scrambling up at the opposite end. I remembered that he could not swim and shouted to him to hold on for his life—as if he would not do that in any case! One pitch followed another, the waves

half smothering us from time to time. And now, right ahead, was the worst point of all: what the Ottawa raftsmen call a "cellar," where the water sinks down in front of a ledge of rock and flings itself back as a towering wave. A strange sensation of sinking into the depths was followed by a deluge of water leaping and trampling upon us, and then the raft struck heavily and was nearly dragged from under us. Was it going to pieces? Next moment we were above water again, half strangled but alive, and we supposed that the packs underneath the raft had struck and been torn from their fastenings... Transport by raft had certainly saved some time, for we had come down at least four miles in fifteen or twenty minutes; but, on the other hand, we had not been able to admire the fine scenery of the canyon on the way, and we had lost everything we possessed except our dripping clothes. Still, there was a certain thrill of pleasure and pride in having done it, though we did not want to repeat the exploit. Presently as we stood there, I on the raft and Frank perched on the stump, a disagreeable feeling came over us that without blankets, rifle, frying-pan, or axe life would be shorn of its comforts; however, our rashness deserved a fine, for we had foreseen the danger to some extent before starting. The romance of the situation had vanished and we began to think of scrambling up the steep bank when Frank caught sight of something black swaying in the water under the raft. There were the packs still enclosed in the waterproof, barely held at one end by the strap! We blessed the honest leather of that ancient shawl-strap and no longer felt like shipwrecked mariners on a desert island.

The second incident took place when water transportation, which served well enough in the charted east, had been abandoned for the pack train. Difficulties of a new type were thus invited, but no difficulty was too formidable for our intrepid explorer. His brother Lucius, a class-mate in college and now a rancher at Morley, was his companion during these years. In the entrancing story of their journeys, ponies and packers and Indians all take their individual places and all stand out with a distinctness given them by the trained observer whose eye nothing escapes. Was ever a truer description penned than that on page 172 setting forth the equine manners of a new pack-train, whose members must settle at the outset the question of precedence—like so many professors at convocation? Well, on a 24th of September they were at last emerging from the mountains, bound for Edmonton, having traversed and mapped the country from Laggan to Robson. Dr. Coleman himself was leading the cavalcade on his good mare Betty. They were seeking to locate a difficult ford over the Athabaska. They had reached an island in the river without mishap. In searching for the bar that led to the further side Betty was swept off her feet. As she swam low, Dr. Coleman flung himself from the saddle and swam at her side holding the bridle. They reached the other bank where he caught an overhanging branch and was able to pull himself from the icy water. The mare, however, was baffled by the under-cut bank, and after many vain attempts to get a footing stoutly turned to the island which she reached in safety. The further end of the trail and the ford was located up-stream by Dr. Coleman, and the others crossed by the ford.

His final attempt to conquer Robson in 1908 falls within the era of the Canadian Alpine Club, which encouraged his undertaking another expedition. His companions were his brother,



Dr. A.P. Coleman

the Rev. George Kinney, Yates the packer, Yates' dog Hoodoo (who lives forever in the charming description of page 298) and the lordly Adolphus Moberley and his retinue. The expedition started too late, and the cavalcade, especially with the Moberley's added, became too elaborate to make for success. But it was a glorious venture. Much was added to the knowledge of Robson and its satellites. The climbers finally secured a fine day and reached an altitude of about 11,000 feet, following the treacherous glacier and the ice-slopes above Berg lake. Again in 1913 with the Club, Dr. Coleman visited the scene. Many will remember the charm of his presence about the camp fire and of his profound address in the simplest of language to one of the evening gatherings. A few years later his influence was largely responsible for blocking an attempt—arising from a mistaken idea of patriotism—to rob the mountain of the name it had so long held, received possibly from Ebenezer Robson, the pioneer Methodist missionary on the Fraser during the gold rush of the Fifties.

A charter member of the Alpine Club of Canada, Dr. Coleman held in turn the offices of Chairman of the Toronto section, Eastern Vice-President, President and Honorary President. Whenever possible he attended the annual camps. When he was not painting or exploring he took his place in climbing parties. One of these the writer remembers with particular pleasure—the second ascent of Mt. Ball from the Storm mountain camp. A bivouac was necessary on the way in. Here Dr. Coleman's camping lore and charming conversation added greatly to the pleasure of our camp fire near timber line, and particularly contributed to the comfort of the two young women who had been included in our party of eight and who were a little concerned at the novel experience. The following day, although in his sixtieth year he performed the exacting climb and long journey back to camp with ease and evident relish.

As a mountaineer in the acrobatic sense he never aspired to fame. Nor could he permit his interest in the mountains to narrow to the mere matter of conquering new peaks. The failure on Robson was a disappointment, but not a grief;—as we now know, it is not a mountain to be attempted by the amateur, unless under the rarest of conditions and from a high base. But for half a century it was Dr. Coleman's delight, whenever he could leave his work behind, to recover again and again the inspiration of that first climb above the Bow river. And in a conversation in the Faculty Union shortly before his illness —here he was accustomed to lunch during term taking his part in discussion at table and then retiring to the reading room to bury himself in a periodical—he expressed the hope that he would be able to drive west again this summer and after forty-seven years enlarge a passing acquaintance with Mt. Coleman near the head waters of the Saskatchewan.

In the service at Convocation Hall and in the tributes paid him by the Chancellor of Victoria University and the Principal of University College there was no note of sadness, rather one of gratitude for the well-rounded life of a great and good man. To the world of science in his day he has made a distinct and widely recognized contribution; to successive generations of students he has bequeathed a zeal in the pursuit of truth, tempered by good taste and largeness of heart. And amid the scenes he loved so well, the massif which bears his name— above the lovely lake which bears the name of the most perverse of his pack-train—will stand forever as a monument to one who knew the mountains, their origin and history, and loved them too for the beauty he found in glade and alpland and pinnacle.

—C.B.S.

ARTHUR M. BARTLEET

1866-1937

A life member of the Alpine Club of Canada, Arthur M. Bartleet passed peacefully away on February 16, 1937, in his seventy-first year. He was born and lived at Edgbaston, a suburb of Birmingham, England. Educated at Rugby he took his degree at Trinity College, Cambridge, in 1888. He was called to the Bar, Inner Temple, in 1896 and practised for a time in the Chancery Division. His two favorite pursuits were mountain climbing and hunting. A fearless rider, he hunted with the Ledbury and Croome Hounds. He was also a keen golfer.

As a mountain climber, he had a splendid record. The record of his climbs in the European Alps is too long to quote here, but a full reference will be found in The Alpine Journal, May, 1938, where among the "In Memoriams" an obituary appears, written by the late H. J. Mothersill.

In 1909 he visited the Canadian Rockies and it is the story of this visit that will be of greatest interest to our members. The story will be found in the 1910 issue of the *Canadian Alpine Journal*, page 143, where it appears under the title of "Two Englishmen in the Yoho Valley." This delightfully written story is from the joint pens of E. F. M. MacCarthy and A. M. Bartleet. Mr. MacCarthy was a schoolmaster and was known among us as the "Old Man," probably from the fact that he had attained his seventieth year at the time of his visit. He and Bartleet were very dear friends and were travelling together.

The annual meeting of the British Association for the Advancement of Science, in 1909, opened at Winnipeg on August 25 and the Alpine Club of Canada had extended to visiting members of the Alpine Club an invitation to be our guests at our newly opened Club House at Banff, at our annual camp, that year held at the Lake O'Hara meadows, and for a special mountaineering expedition around the Yoho valley—part of the time over the icefields along its eastern borders. Twenty members accepted the invitation and were our guests for a period of three weeks. It was in this latter expedition that Bartleet and MacCarthy took part and of which their story is written.

The expedition lasted for six days and a number of mountains were climbed, among them Mts. Daly, Balfour, Habel, McArthur, The President and Vice-President. The first two days of the route lay across the Waputik icefield and along the eastern slopes of the valley. For these, pack ponies could not be used and food supplies, equipment, etc. were carried on the backs of some twenty volunteer members of the Club, referred to in the story as "The Boys." Of this part of the trip Bartleet writes:

"The loads were simply staggering; not indeed to the bodies of those who bore them, but to the feelings and imaginations of the others; and the thought, not only that this tremendous work was undertaken during their short holiday, but that it caused our unselfish friends to miss making the ascent of the mountains they would have loved to climb, indeed touched the hearts of all us English. Perhaps, by way of expressing my own gratitude to the President, Vice-Presidents and the Boys, I cannot say better than that I value the memory of the week I spent with them more highly than any other of my mountaineering experiences, albeit these reach back to a time more than twenty years ago; and I may add that, had I missed these first two days, I should ever after have felt much regret, save only for the fact that in that case the loads would have been a little lighter."

In the closing paragraphs of the narrative, the "Old Man" says:

"We English visitors have had a most delightful time and are overwhelmed with feelings of pleasure at the grand mountain scenery to which we have been introduced . . . and of gratitude for the unbounded hospitality which has made our visit so agreeable We have had perfect weather (barring the one thunderstorm), have been companioned, waited on and catered for by the most cheery and good-tempered fellows it has ever been our lot to meet Artemus Ward, humorously patronizing Dame Nature for the clever way she had done her crumpling to produce the Rocky Mountains of the American Continent, gives her the testimonial—'The Rockies are a great Success;' and so they are . . . and Artemus Ward's verdict is just that which the English climbers, familiar with Switzerland's deeper valleys and steeper heights, conspicuously endorse—'The Rockies are a great success.' "

Arthur M. Bartleet was a fine mountain climber, a delightful travelling companion and an ardent sportsman. His charming manner and sterling qualities gained him many devoted friends. Though only with us for a week, the writer is privileged to number himself among them, a friendship that continued until the day of his death. Those of us who knew him will not forget his keen enthusiasms and his lovable ways.

—A.O.W.

RALPH SQUIRE HULL

1872-1938

Ralph Squire Hull was born on December 17, 1872, at Scranton, Pennsylvania. He prepared for Yale at Scranton, graduating from Yale with the degree of B.A. in 1894.

After graduation he studied law in Scranton until September, 1896, when he entered the Brooklyn office of the Title Guarantee and Trust Company later becoming Secretary of the Title Guarantee and Trust Company of Scranton.

In 1903 he became associated in the practise of law with Mr. John Larkin at New York City. He joined the Alpine Club of Canada in 1921.

Since August, 1937, he had been physically incapacitated for work and after a long illness died on August 7, 1938. -A.J.G.

MISS C. M. HOLDITCH

Born and educated in England Miss Holditch joined the staff of Ruperts Land College shortly after her arrival in Canada. Here she taught for 31 years, always exhibiting a keen interest in her work and the life of the school generally. She took part in many of the organizations affiliated with the school, being particularly interested in the Alumnae Society.

She joined the Alpine Club in 1908, later becoming a life member. For many years she attended the meetings of the Winnipeg section and in her quiet way made her contribution to the life of the section.

She died on October 26, 1938, at Brandon.

I am very grateful to the *Editor of the Canadian Alpine Journal* for allowing me the privilege of writing a few lines in memory of Miss Muriel Holditch. After a friendship of over thirty years—four of which were spent together in very close contact on the staff of Havergal, now Ruperts Land College, Winnipeg, one sees in perspective her real worth.

She lived her life in such a quiet unobtrusive way, one was apt to overlook her gentle kindnesses. If one looked worried, Miss Holditch always had words of encouragement: if one's duty hours were long she had a cup of tea or some wild flowers from Boissevain to offer. She had learned early what it takes some of us a lifetime to learn that "to lose one's life is the only way to find it" and that after all is real greatness, whether it is found in a boarding school or in life's relationships.

A daughter of the rectory, she brought into her school life those ideals of obedience, respect, reverence, culture and loyalty in which she had herself been reared. She also had inherited the Englishman's love for flowers and a garden—sometimes it might be only a plant in a tomato can on the window sill. Psychologically to me purple prairie crocuses and Muriel Holditch's name will always be closely related. Her death last autumn will leave the world a poorer place except that she herself will live again in the hundreds of girls that have passed through her hands, during her many years at Ruperts Land College.

Blake says:

every Kindness to another is a little death In the Divine Image: nor can man exist but by brotherhood.

And this too did Muriel Holditch know and thus she lived.

—C.A.McI.

THE ALPINE CLUB LIBRARY

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Donations to the Library since last Journal issued

	TITLE	DONOR
	Blank on the Map; E. Shipton	Mrs. E. Parker
	Hargreave Correspondence; Champlain Society	Subscription
	Peaks and Valleys; F. S. Smythe	Publlishers
	Simpson's Athabaska Journey; Champlain Society	Subscription
	Son of the Mountains; Julius Kugy	B. Gresham
	Sixty-three Years of Engineering;	
	Sir Francis Fox	J. Lonsdale Doupe
	Reminiscences of a Bungler	J. Lonsdale Doupe
	The Alps in 1864; A. W. Moore	Publishers
	Indicatore Turistico Alpinistico Sciistico del Piemonte; A. Hess L. Mussino	
In addition Mr. H. J. Graves has again donated a bound copy of Volumes 24 and 25 of ou Journal.		

REVIEWS

PEAKS AND VALLEYS

by F. S. Smythe, with 76 reproductions of photographs by the author, 129 pages and index. Adam and Charles Black, Soho Square, London, 1938. Price 12/6.

This is a much photographed age. Very little escapes professional and amateur photographers and nearly everything under the sun, moon and all other forms of light is recorded from all possible angles. As a result, the miniature camera industry with its thousand and one gadgets has become a serious competitor of the purveyors of precious stones and the world is deluged with pictorial magazines of every description, the contents of which, alas, leave nothing to the imagination.

The field of Alpine photography has of course been invaded by these enthusiasts and owing to the extreme ease with which the modern camera can be carried and operated as compared with the cumbersome plate cameras and unwieldy tripods of the pioneers, almost anybody by following the directions on the label can take pictures. The problem still remains, however, of finding the right picture.

The versatile Mr. Smythe has again appeared in the dual role of philosopher and photographer and this is a companion book to The Mountain Scene published in 1937. Of the 76 photographs reproduced 13 were taken in the Alps, 1 in Scotland and 62 in the Himalayas. All the latter are from the district in the centre of the range, dominated by Kamet, Nanda Devi and Mana. Lying midway between the so far impenetrable defences of Nanga Parbat and Everest, this district with its giants of lesser height has been kinder to climbers and they have returned not only with summits in the bag, but with memories of flower filled valleys and wooded slopes.

Some of these memories Mr. Smythe has fixed with the aid of his camera and they serve to illustrate his strivings to catch the elusive beauty of the hills.

In his preface he re-states the difficulties of his task. "The beauty of nature inspires me with a feeling of hopelessness. I long to transfer it—if only a tithe of it—to a film, and more often than not I fail dismally. Never in my life have I taken a photograph that completely satisfied me. This is at once the curse and lure of the art. Perfection in an artistic medium is impossible—so we strive towards an unattainable ideal."

To those of us, however, who are not exacting critics, he does not seem to have done so badly and for the mountaineer who can appreciate the beauty of the scenes he has endeavored to portray, this becomes a picture book that will in turn recall memories of his perhaps more modest experience. What a familiar touch there is in No. 28. "A minor Peak, Garhwal Himalayas." The little tents nestling in the grass beneath _the towering cliff. The muffled figure engaged in finishing the evening meal while his companion surveys from a nearby rock, the towering peak bathed in the evening light.

One can imagine the tinkle of a nearby stream, the smell of camp fire smoke and the chill breeze of approaching night. It does not matter that the scene before us was recorded in India.

Mr. Smythe's writing possesses the quality of directness, a quality, to use his own words, much sought after by modern Alpine climbers, to which is added a touch of humor and a deep appreciation of beauty. Here are one or two quotations.

"Simplicity of design is the keynote of effective landscape photography and in particular of mountain photography."

"The majestic citadels of heaven—clouds, at once the joy and despair of the photographer."

"Sunset photographs from mountains are easy to take and are merely matters of exposure and choosing a vantage point. What is much more difficult is finding the right sunset."

"Peacefulness was the supreme motif and it may be that the photograph besides revealing a little of the beauty of "the Valley of Flowers" also conveys something of this most desirable of natural and human qualities."

Not the least amongst the gifts of the mountains are memories, and in evoking them from the past we call upon the art of the photographer. The greater his ability to interpret the heart of his subject the greater will be the aid, and mountaineers and photographers alike should welcome this second volume of pictures by Mr. Smythe for its valuable contribution to the study of Alpine photography.

It is possible that mini-camera contortionists may criticize Mr. Smythe's pictures on the grounds that they represent scenes as viewed by a human being standing erect and looking at them in the normal manner. There is no indication that the photographer stood on his head or lay on his back when taking them. This defect may be partly overcome by turning the book upside down when examining its contents.

—F.H.S.

THE ALPS IN 1864. A PRIVATE JOURNAL

by A. W. Moore, edited by E. H. Stevens, 2 Vols. Vol. 1, I-XXVII, 1 to 246. Vol. 2, I-XI, 247-524, 35 reproductions of photographs, 9 maps. Issued in Black-well's Mountaineering Library by Basil Blackwell, Oxford, 1939. Price 5/- each.

This is the fifth in the splendid series of moderately priced reprints of mountaineering classics being issued by Basil Blackwell, and should be accorded a warm welcome by modern mountaineers since copies of the original edition issued in 1867 have now become "collector's items" and the 1902 edition rarely finds its way into that haunt of the impoverished mountaineer—the second-hand bookstore.

The same high quality of production found in the earlier volumes, has been maintained, together with the insertion of modern photographs and intelligible comments on what they represent, indicating routes taken etc. This latter feature is one to be commended to all publishers of mountaineering books, as a very few words of description will often bring to life a picture and add a zest to the accompanying text* that a simple title such as "Mt. Blanc from the North" or "The Matterhorn" entirely fails to achieve.

"So many human activities have lost their power to refresh the spirit because people tend to do things for the wrong reasons— for publicity, for sensation, for money, or because it is the fashion to do them. A wrong attitude poisons our recreations no less than the more serious aspects of living. . Directly people allow the element of competition to rule their activities, and care more for trophies or record breaking, or acclamation, than for a real understanding of their craft . . . they are in danger of losing the touchstone of genuine values which alone makes anything worth while."

This quotation from a modern book Blank on the Map by Eric Shipton, elsewhere reviewed in this Journal, condemns an attitude that threatens the sport of mountaineering today and makes it particularly fitting that we turn back to Moore's Journal, written three-quarters of a century ago by one of the foremost members of that band of Englishmen who loved the mountains for their own sake.

A. W. Moore was born in 1841 and during his life held many important posts under the Conservative Ministry. His untimely death, attributed to overwork, occurred in 1887 at the age of

46, at a time when he had just been appointed Political and Secret Secretary at the India Office, one of the most honorable and important posts to which a civil servant of the State can attain. He first visited the Alps in 1860 and in 1862 began those expeditions which made his name famous in the annals of the Alpine Club, of which he was appointed Secretary in 1872.

Mountaineers who have not read the work under review will doubtless have encountered Moore on some of his famous climbs with Whymper, as recorded in *Scrambles in the Alps*. These took place in 1864 and included the first ascent of Les Ecrins on June 24 and 25; the first crossing of the Col de la Pilatte on June 27, and of the Morning pass to Zermatt on July 18. The latter expedition is probably the best known due to the vivid manner in which Whymper has written up and illustrated this dangerous passage.

It is always interesting to read accounts of the same climb written by two of the participants and nothing illustrates so well the difference in temperament between Whymper and Moore as their separate stories of these climbs together. Whymper, sensitive, high strung, loving the dramatic and willing at times to throw caution to the winds to attain his ends. Moore, painstaking, sensitive to danger without being nervous, never forgetful of a mountaineer's first duty—to run no risk for himself or his companions that pains can avoid or care diminish; modest and somewhat matter of fact.

One short incident by way of illustration. On arriving at the summit of the Morning pass the party was confronted with an enormous cornice which far overhung the side towards the Hochlicht glacier to which they planned to descend. Here is what Whymper says: "Croz—held hard by the others, who kept down the Zinal side—opened his shoulders, flogged down the foam and cut away the cornice to its junction with the summit; then boldly leaped down and called on us to follow him." In addition he illustrates the scene with a fearsome picture of the flogging process. This is Moore's version: "However, advancing along the ridge for a few yards we found a point where the breadth of this overhanging fringe was not so great and the guides, having cut away a portion of it, disclosed a wall of snow, which, so far as we could judge through the fog, though exceedingly steep was of no great height . . . Anyhow Croz led the way through the hole in the cornice and we followed, Aimer bringing up the rear."

Let no one suppose from this, however, that Moore's style is uninteresting, in spite of the minuteness of the topographical details he succeeds in bringing the actual details of the climb home to the reader in a vivid and convincing manner.

The book also contains Moore's account of what is perhaps his most famous climb; the first ascent of Mt. Blanc by the Brenva route in 1865. The party consisted of Moore, Frank Walker, his son Horace Walker, G. S. Mathews and the guides Melchoir and Jakob Andregg. The start took place from Courmayeur on the memorable 14th of July 1865. One wonders if, as they travelled leisurely in the warm sunshine, up to their bivouac beneath the Brenva ice-fall, they had any presentiment of the tragedy being enacted that afternoon on the mighty Matterhorn, involving their friends and companions of the previous year, Whymper and Croz. If so, no hint is given by Moore. They faced death themselves next day across the famous ice ridge and under the towering ice cliffs of the Brenva face, but fate was kind and they won through. Let it be remembered that the two guides had the only ice axes in the party, the rest had alpenstocks. As Dr. Amstutz remarks "Who would venture now to attack the Brenva with an alpenstock?"

It may be noted that the fifth ascent by this route and the first guideless one, was made in 1894 by Mummery, Collie and Hastings, Mummery's last great Alpine climb, and it was only in 1900 that Dr. Kugy made the seventh ascent, thirty-five years after Moore's, which shows that the climb was far in advance of the standard of the time.

Moore's classic is well worth reading or re-reading. It breathes the pioneer spirit of the mountaineers free from competition and strife and is, in fact, a fragment of the autobiography of a typical mountaineer of that day.

—F.H.S.

HIMALAYAN QUEST

edited by Paul Bauer, translated by E. G. Hall, pp. xxv+150; 96 illustrations and 4 maps, with Foreword by Sir Francis Younghusband, K.C.S.I.: LL.D.: and also by the Translator; Nicholson and Watson, London, 1938. Price 21/-.

This volume, the translation of the German, *Auf Kundfahrt im Himalaja* contains a narrative of the conquest of Siniolchum and Simvu and of the second disastrous German attempt on Nanga Parbat in 1937, to which reference was made in this Journal, Vol. XXV, p. 158. It constitutes a fine tribute to the victims, both European and native, to whose memory it is dedicated, and illustrates the commendable feature of lucid brevity. The contributors to the volume are mainly Dr. Bauer and Ulrich Luft, the only European survivor of the 1937 Nanga Parbat adventure; on a smaller scale, Gunther Hepp and Karl Wien, the leader of that expedition. The full page illustrations are splendid.

The approach to Siniolchum, 22,620 feet, was begun in August, 1936, and the peak, described by Freshfield as the most beautiful mountain in the world, and as being inaccessible for his generation, was conquered on a second attempt by Wien and Goettner on September 22, from a bivouac some 1500 feet below the summit. The advance of the party, which in the last stages comprised only four Germans and two Sherpa porters, had been greatly retarded by unusually heavy snow falls. A vivid description of the perilous nature of the ascent is given on pp. 67-70. On the summit "the Swastika and Union Jack were fastened to an ice-axe and brandished in the air."

The Sikkim expedition of 1936 ended well. In addition to Siniolchum, "we had" writes Dr. Bauer, "conquered Liklo and five other 16,000 feet peaks in the Zumtu district; we had trodden six new glaciers and two important passes; we had stood upon Nepal Peak at 23,000 feet, and Simvu, 21,470 feet, had fallen to our attack; in the north chain we had climbed four 19,000 feet peaks, and, above all, we had paved the way for the coming expedition to Nanga Parbat."

The assault, the fourth on this fateful peak, was commenced on May 22, 1937, and on June 14 all the Europeans except Ulrich Luft were assembled at Camp IV, 20,400 feet, and preparing to establish Camp V at 21,780 feet. Their operations had been greatly hindered by wretched weather. It had snowed heavily, and there had been some terrific avalanches which had brought down tons of ice. There is a bitter irony in the fact that the party was led, owing to sounds of the ice beneath their tents cracking on the night of June 8, to move somewhat higher into a hollow where a camp had been made in 1934; for the place whence they had moved was not touched by the avalanche which overwhelmed and blotted out men and tents on the night of June 14. When Luft came up from Camp II a few days later, he soon realized the terrible event. "An avalanche of terrific proportions had covered a surface of nearly fifteen acres with gigantic ice-blocks, under which were buried the seven climbers and nine Sherpa porters."

It speaks strongly for the deep sense of comradeship and friendship engendered by these adventures, and which has frequently been emphasized by the Germans, that when the stunning and almost incredible news of the greatest disaster in the history of mountaineering reached

Germany, Bauer and two companions, Fritz Bechtold¹ and Dr. von Kraus, did not hesitate to leave their respective occupations and fly out to India in order to rescue, if possible, the climbers, or, at least, to recover their bodies. In 18 days they reached the Base Camp, and although completely out of training and under intense emotional strain, were a few days later, at the scene of the disaster. Using sounding poles and a thousand feet of ship's rope, procured at Karachi, so admirably suited to the purpose that Bauer says hereafter no mountaineering ropes need be brought from Europe, they and Luft worked at a seemingly impossible task that made tremendous demands on heart and lungs. They had to break through some twelve feet of ice, which in the Himalayas is not brittle, but resembles solidified glue. All but two of the Europeans were found, with diaries and some personal effects, and were buried together. The Sherpa porters were left undisturbed in accordance with the wish of the Sirdar Nursang.

Dr. Bauer writes appreciatively of the attitude of the Indian Press, and of the hospitality of the English air men and officers: "Whenever I have been in contact with the English in India, I have always felt that we are members of the same race and the closest blood relations." There is, however, a marked difference in the attitude towards mountaineering between the German and British climbers, clearly defined in the Forewords to this volume. The Germans have declared that the main motive of these Himalayan Expeditions is to be found in the reawakened sense of nationalism, which developed as a post-war phenomenon. The members of these adventures did not regard themselves as sportsmen only, but as having a mission, namely, to show that Germans are men with the greatest powers of endurance and courage. This has been amply proved, and most notably on Kangchenjunga. While experiencing joy in the struggle with the forces of nature, yet the seriousness of their aim is more obvious. British climbers *appear* to be more light-hearted, to regard this struggle more as a sporting enterprise, and to be less *intensely* set on reaching the summit.

Dr. Bauer, who has inspired and aided by his great personal efforts these expeditions, endeavored to carry the torch forward last season, 1938, in another attempt on Nanga Parbat. Several of the party reached 23,780 feet, when bad weather forced a retreat. On the way they found the bodies of Willy Merkl and Gay Lay who perished together in 1934. We hope that Dr. Bauer, Ulrich Luft, Bechtold and von Kraus will be first to stand on the summit of this peak.

—J.W.A.H.

HIMALAYAN ASSAULT

The French Himalayan Expedition, 1936. English translation by Nea E. Morin, pp. xiv+203; 48 illustrations and 3 maps. With an introduction by Brigadier-General the Hon. C. G. Bruce, C.B., M.V.O. Methuen & Co., London, 1938. Price 15/-.

This book, the original of which appeared in Paris earlier in 1938, gives an account of the first big Himalayan Expedition carried out by French climbers, none of whom had had experience on the great Asiatic peaks. It had as its aim the ascent of the Hidden Peak, Gasherbrum I in the Karakoram, 26,470 feet. The different chapters are written by Jean Escarra, by Henry de Segogne, the well-known alpinist, the leader, and by Louis Neltner and Jean Charignon, members of the expedition. It appears to have been unusually well outfitted, perhaps over-equipped and supplied,

¹ Author of *Deutsche am Nanga Parbat*, 1934. Lieut. Smart, the British liaison officer, was included in this sentiment: "Smart had become," writes Bauer, "an integral part of the German team and stood by it with loyalty and comradeship."

and, in consequence, unnecessarily encumbered. Nearly 700 coolies were employed to carry the loads from Askoley to the Base Camp.

This camp was established at 16,400 feet near the Baltoro glacier, on a spacious site, above which five camps were made, the highest at 21,700 feet. The climbers reached a thousand feet higher. Up to this point the route was over a tremendous buttress of rock and ice, which presented severe technical difficulties and provided some first class rock-climbing. Much time was required to fix great lengths of rope so that the porters could bring up the loads; 6600 feet being using on this part of the mountain. Notwithstanding that the Mount Everest Expedition had presumably obtained the pick of the "Tigers," complete satisfaction is expressed with the able and courageous work of the Sherpas hired at Darjeeling through the assistance of Mr. Hugh Ruttledge.

Except for absence of extreme cold, the lowest temperature experienced having been -5°F., the expedition had miserable luck with the weather, as did the simultaneous Everest party. In both cases an early monsoon brought operations to a premature close. This was all the greater disappointment to the French climbers, because some of them had acclimatized very well, were fit to proceed higher in the latter part of June, and were all the more keen to advance as the route above the buttress appeared to be easier up to the summit. But the leader exercised his authority to call a halt and order a return. He feared that with the stormy weather which had set in, a catastrophe might overtake the climbers similar to what had occurred two years earlier on Nanga Parbat. His decision appears to have been well justified. On the descent made in a blizzard, two of the Sherpas had a marvellous escape from an avalanche, which carried them down some 2000 feet and in one place over 100 feet of rock wall. A further delay would probably have involved a big disaster.

The book is free from any attempt at sensational effects. Much of it is in diary form, which, nevertheless, displays in parts characteristic verve. The Appendices are replete with most interesting information on geography and geology, photography, wireless, diet and medicine, and general equipment. Canadian tents were used and appreciated. In an amusing paper, Dr. Arlaud, the chief medical officer of the expedition considers that the unusually good health of the climbers was due to strict attention to diet at the higher camps. From passages on pp. 84, 115, 116 and 135, it is obvious that there was occasionally a lack of harmony between the British liaison officer, Captain Streatfeild, and some of the climbers.

The translation has been praised by competent critics, who know the original. The pictures are very interesting and attractive, but most of them might have been reproduced better.

—J.W.A.H.

SON OF THE MOUNTAINS. THE LIFE OF AN ALPINE GUIDE

by Dr. Julius Kugy, Honorary Member of the Alpine Club, translated by H. E. G. Tyndale, 200 pages, 9 reproductions of photographs and map. Thomas Nelson and Sons Limited, London, Toronto and New York, 1938. Price 7/6.

Readers of Mr. Tyndale's excellent translation of Dr. Kugy's *Alpine Pilgrimage* (John Murray, London, 1934) will welcome this further translation of a book from the pen of that great Austrian mountaineer, known to his friends as Uncle Julius, King of the Julian Alps, and will place it in their mountaineering library alongside Christian Klucker's *Adventures of an Alpine Guide* and Conrad Kain's *Where the Clouds can go*.

Dr. Kugy, in a long and varied mountaineering career, has always preferred to climb with guides. "It is my principle" he writes "always to gather the best men about myself, and from my experience and observations, I have found these among first-class guides and not among the most

skilful guideless climbers." He adds, however, "I do not want to say too much about climbing with or without guides. Each man must seek his happiness according to his faith. Let each man follow his bent."

During his climbs in the Swiss Alps he became the friend and companion of many of the famous guides of the day—Alexander Burgener, Matthias Zurbriggan, Joseph Croux, Antoine and Daniel Maquignaz, and many others, but he reserved his greatest affection for the guides of his earlier triumphs in the Julian Alps. None of them were genuine guides when he first engaged them but they became so later through his care,—Andreas and Joze Komac, Osvaldo Pesamosca and Anton Oitzinger, "My four great Paladins in the exploration of the Julian Alps covering almost half a century." It is the life story of the latter told by a lifelong friend that this book records.

Anton Oitzinger was born in 1860 at Valbruna in the Seissers valley on the northern slopes of the western Julian Alps close by the mighty peaks of Montasch and Wischberg. Here he spent a carefree boyhood. If you wanted to go to school you went, if not, you stayed away; a system not calculated to produce profound scholars. Speaking of Oitzinger and one of his companions the Doctor writes "Let us admit it frankly and cheerfully; neither of them could write. At a time when the complaint is so often heard that too much is written, perhaps one may take comfort from the thought that in those days there was an ideal system of education."

At an early age he went to work as a herdsman and in following his charges far into the mountains, he learned his mastery of balance and cragsmanship. At seventeen he left home and took up the woodsman's craft and six years later wandered into Bulgaria and took service with a rich owner of sawmills entering one in the depths of the forest as assistant. The Bulgarian forests of the eighties were the homes of fierce robber gangs and in later years, when seated by the fire in some lonely bivouac, Oitzinger delighted to raise the hair of his companions with tales of the great robber chieftain Tzigarin, the ends of whose moustache, plaited into pigtails, were so long that he wore them tucked over his ears. He extracted toll from all and sundry and woe betide the traitor; for him was reserved the fate of being hung up by the feet to a tree with his head in an ant heap.

In ten years he was back home again where he married and settled down to wrest a living from the soil. Here in 1897 Dr. Kugy chanced upon him and being in need of a guide to the peaks of the western Julian Alps, began that long friendship which only ended with Oitzinger's death in 1928.

"Oitzinger, the gay laughter loving Carinthian of ready wit and humor; mercurial, high-spirited and quick tongued, following truth and justice, a proud and stubborn enemy, but a loyal friend; gentle and generous to others, himself attaining a well-earned prosperity. A man of clear thought and transparent courage; dark eyed and sunburnt, a tall, slim, supple figure of easy gait and long stride." This is the man who moves through the pages of the book whether fighting his way up the grim northeast gully of the Wischberg and the great north face of Montasch, or contentedly yodelling high up on a summit ridge with his eye fixed on a favorite chalet far below, till, his throat grown dry and husky he suggests, "How would it be Herr Doktor if we went down for a beer?" "And" adds the good Doctor "he almost always got his way. After all, hearts are not made of stone."

Then came the war and his house was destroyed by Italian incendiary shells. He returned, however, and in spite of very difficult times, again rose to his pre-war prosperity. Here in his peaceful valley Dr. Kugy would often visit him, himself precluded from further difficult climbing. "A day with him" he remarks, "was a healing and invigorating tonic. He taught me to accept what was within my grasp, to adapt myself to life with gratitude for its gifts and to set patience and simplicity in the place of exalted expectation."

Although the Doctor never climbed with Oitzinger again he has included in the book an account of the great guide's last climb, written by a young friend, Dr. Paul von Kaltenegger, who accompanied him. At the close of a long day when Oitzinger, equipped only with worn shoes and an ancient alpenstock, had put the young man through his paces, much to the latter's discomfort at times, the Doctor ponders on the old man walking beside him, fresh as ever without a sign of fatigue. "He was nearly sixty-seven years old. He had worked hard all the week; today, our climb; and tomorrow the first rays of sunshine would see him once more on his meadow, scythe in hand. And here was a young buck like myself with weeks of rest and training behind him longing for a bed in which to laze till noon tomorrow."

In the following year, 1928, Oitzinger died, following an acute attack of appendicitis.

Apart from the story of Oitzinger's life the book is pervaded with the gentle philosophy of Dr. Kugy, for in honoring his friend he has revealed the kindness and generosity of his own spirit. He says "If a man shall order his goings in the symbol of some great mountain enterprise, looking steadfastly towards his goal, he will not stray far from the paths of righteousness." It is a good thought in these distressed times for mountaineers, young and old and, for that matter, anybody else.

—F.H.S.

BLANK ON THE MAP

by Eric Shipton, with a foreword by T. G. Longstaff, 9x6, xv+299 pages, 55 reproductions of photographs, 3 maps. Hodder and Stoughton Limited, London, 1938. Price 18/-.

"With so much of the vast Himalaya still a blank on the map, our first privilege is to explore rather than to climb. In two hundred years, when the Himalaya are known, then we may enjoy the range by climbing its peaks. In two thousand years time, when all the peaks are climbed, we shall look for more difficult routes by which to climb them, to recapture the feel of adventure and perhaps to demonstrate our modern superiority."

These may seem strange sentiments from one who has taken part in four expeditions to Mt. Everest, but readers of Mr. Shipton's previous work "Nanda Devi" and those who have followed his career as a climber and explorer, are well aware of his modest approach to the problem of the Himalaya and his desire to see the opening up of that great range kept free from the sensational and competitive methods which unfortunately prevail in nearly every field of endeavor today.

The scene of the expedition recorded in this book was the region to the north and west of K2, the second highest mountain in the world, lying between Hunza, north of Kashmir and the province of Sinkiang of Chinese Turkestan, and bounded on the south by the main Asiatic watershed. It included parts of the great Karakoram and Aghil mountains and the upper reaches of the Shaksgam river.

The main result of the expedition which occupied a period of five months during the summer of 1937, was a survey of 1800 square miles of one of the most difficult mountain districts in the world and an examination of its geological structure. "With a reversion to the practice of a generation ago" writes Dr. Longstaff in his Foreword, "the venture was organized and financed with an avoidance of publicity and with an economy quite unusual today."

The party consisted of Eric Shipton, his great friend H. W. Tilman (leader of the 1938 Everest Expedition), Michael Spender, surveyor, and John Auden, geologist, accompanied most of the time by only seven Sherpa and four Balti porters. They were able to carry out their great task at a cost, including three return passages to India from England, of less than \$4,500. It was a very thorough demonstration of Mr. Shipton's theory, which is shared by Mr. Tilman, that small

expeditions can accomplish work of this nature better and with much greater economy than large and unwieldy parties.

The system, of course, entailed cutting everything down to the barest necessities and even below that, in fact in the final shake-up, the geologist of the party was nearly deprived of his sacred hammer and Tilman passed the next five months with only one shirt to his name and not much of that during the last period. That their careful plans were successful, but only by the slenderest of margins, is evidenced by the touching photographic study of the author's boots at the close of the expedition.

The first explorer in the part of the Karakoram which the party entered was Sir Francis Younghusband, who in 1887 at the end of his great journey across Asia from Pekin to India, crossed the Aghil range by what is now known as the Aghil pass. Ascending the Sarpo Laggo glacier he then crossed the main Karakoram range by the Mustagh pass close to that most fearsome looking of Himalayan peaks, the Mustagh Tower. Two years later he again entered the district and emerged by way of the Shimshal pass which lies at the northwest extremity of the area.

In 1926 Colonel Kenneth Mason explored the eastern section of the district. In 1929 a party from H.R.H. the Duke of Spoleto's expedition crossed the Mustagh pass into the Shaksgam valley and in 1935 Dr. and Mrs. Visser followed Mason's route and mapped a section of this area. But to the west and northwest of the areas visited by these explorers there still remained vast regions of unknown country and it was the exploration of a portion of this area that was the main object of the expedition.

Leaving Srinigar early in May the party travelled to the east of the great trade route which goes over the Burzil pass and across the Indus to Gilgit, and is familiar to those who have followed the Nanga Parbat expeditions. On June 2 they crossed the Great Karakoram by an 18,500-foot pass at the head of the Sarpo Laggo glacier, to the west of the Mustagh pass. Descending this glacier to the north they established their base camp on the gravel flats below.

From this point the party of four, working together, in pairs and sometimes singly with the porters, explored and mapped a vast area covering the Aghil pass and Zug or False Shaksgam river to the northeast; the northern approach to K2 to the southeast and finally the country to the west and northwest. Apart from the precise work done by Spender the other parties carried on the survey by using a very light theodolite incorporated with a small camera that had been developed by officials of the Royal Geographical Society working with mountain surveyors and instrument makers. In use this instrument proved highly satisfactory.

On June 20, they reached the summit of the Aghil pass, 15,600 feet. No European, so far as known, had been there since Younghusband's second crossing in 1889. It was also the fiftieth anniversary of his first crossing in 1887.

Amongst a large number of striking photographs incorporated in the book are some of particular interest with reference to K2, to whose northern face the party was able to approach comparatively close. They show a tremendous pyramid rising above its outer defences of lesser giants and presenting a mountaineering problem that may take generations to solve.

On August 10, the party divided for the last time, Tilman with two Sherpas and Auden with the four Baltis, leaving Shipton and Spender at the base camp with the remaining Sherpas. The two travelled together until the 15th, when Auden proceeded south down the Panmah glacier and on to Srinigar. Tilman continued east into the country explored by the Bullock-Workmans, but was unable to confirm the existence of the Cornice glacier which the latter claimed had no outlet, being entirely surrounded by mountains, and over which a considerable controversy had raged nearly thirty years previously.

Shipton and Spender continued the survey work west and northwest finally leaving the area early in September by the Shimsal pass and returning to Srinigar by the route from Gilgit round the flanks of Nanga Parbat and through Astor.

The book is no dry scientific narrative but is enlivened throughout by the author's sense of humor, that never deserts him, and the recording of those little incidents of the march and climb that are all in the day's work and make up the joys and sorrows of exploration. Some very interesting problems are touched upon with reference to the recent advance of several of the great glaciers in the area and the traces found of previous trade routes now barred by the ice. Signs of the Abominable Snowman were also seen but fortunately no prosaic solution found to remove this being from the ranks of the world's few remaining monsters. The sketches throughout the text by Bip Pares are delightful.

Altogether it is a very satisfying book, particularly for the rising generation of climbers and prospective explorers, since it shows what can be done with a small party with moderate means, not only in the Himalaya but in other blank spaces on the map, and at the same time it indicates the sane approach to these problems which alone makes possible their satisfactory solution.

—F.H.S.

UNCLIMBED NEW ZEALAND

by John Pascoe, pp. 236, many illustrations, maps. George Allen and Unwin Ltd., London, 1938. Price 16/-.

This is one of the best mountaineering books published in recent years. The author did a good job with the text, illustrations and maps; the publisher has done an equally good job from cover jacket to binding, type, and paper used, and in the general format. It is a most satisfactory book to read and to own.

John Pascoe is one of the indefatigable leaders of that vigorous and growing band of young New Zealanders who in the last ten years have brought the sport of mountaineering to a new high level of attainment in their country.

Pioneering is still the order of the day in the Southern Alps of New Zealand. Though no great distance from the centres of population, yet the country is of the wildest. Except in the Mt. Cook district the peaks run scarcely to 10,000 feet, but an 8000-foot peak rising-precipitously from a 2000-foot valley can give plenty of trouble. Heavy vegetation, wild torrents, extensive glaciers, an abrupt topography and weather of all kinds, foul to fair, supplies a romantic setting for high adventure. Limited generally to weekends or at best to short holidays of one or two weeks, Pascoe and his fellow members of the Canterbury Mountaineering Club and the New Zealand Alpine Club have made mountaineering history which he has been able to record in a lively, attractive style. The illustrations are excellent, profuse, and give a more than adequate idea of the country. Historical references and comments on the mode of life of the settlers are happily intermixed with accounts of the exploits of the author's and others' parties. There are excellent maps with routes indicated, which greatly aid the reader. There is a good bibliography, but rather surprisingly no index, though one is shown in the table of contents.

This book should be in every mountaineering library. It is a real contribution to mountaineering literature. If it fails to draw the adventurous to New Zealand, nothing will. On the whole, knowing both, I must admit that the New Zealand Alps are almost as fascinating as the Coast Range of British Columbia, and they are somewhat more accessible. Pascoe has performed a distinct service in bringing them much closer to those who will read his book.

—H.S.H., Jr.

ALPINE NOTES

FIRST ASCENT OF MT. MACDONALD

Mr. D. O. Lewis, formerly of the engineering staff of the Canadian Pacific Railway and now consulting engineer of the Pacific Great Eastern Railway, in a recent conversation with the writer has thrown light on the question of the first ascent of Mt. Macdonald at Rogers pass.

In 1903 Rev. Dr. J. C. Herdman, of Calgary, with Edouard Feuz, senior and Edouard Feuz, junior, made what they expected would be the first ascent, but found a small cairn holding an upright piece of wood; in a nearby rock a rusty spike lay in a pool of water. (See The Selkirk Range, A. O. Wheeler, p. 347).

During the winter of 1885-86 the C.P.R. engineers occupied "Cascade Camp" in Bear creek valley east of the summit of Rogers pass. Regular operation of the railway began in June, 1886, and it was during this summer that Mr. Lewis and several others of the engineering staff climbed Mt. Macdonald by going down the railway (east) to the old Bear creek station, descending about 800 feet to the creek, and then ascending the "hogsback" which leads westerly to the summit of Mt. Macdonald. They found no difficulties on the ridge except about 60 feet of rocks at the top.

Mr. Lewis recalls that they planted a flag of some sort which was seen from below. He does not definitely claim this was the first known ascent, having the impression that a party of location engineers had been up at an earlier date.

But in this connection one might well consider if it was not a mistaken account of the ascent of some point, probably farther south, in 1881 by Major A. B. Rogers' party.

Mr. Lewis states the mountain's original name, Mt. Carroll, was given for one of the railway engineers.

—W.A.D.M.

CLUB PROCEEDINGS AND CLUB NEWS

THE COLUMBIA ICEFIELD CAMP

Jasper National Park, Alta. July 16 to 30

The Thirty-third Annual Camp, held near the foot of the Athabaska glacier, opened new climbing possibilities for members and friends and provided an innovation in that motor transport brought them and their baggage direct to Camp, instead of the old pack-train and its attendant hikers.

The high camp equipment was again in great demand and this camp, pitched on the shoulder of Snow Dome at about 10,000 feet, provided some fifty people at different times with the novel experience of sleeping and catering for themselves on the snow-fields. From here climbs were made of Columbia, North and South Twins, Snow Dome; all first ascents for ladies; and the skiers who had stood the gibes when packing up to the high camp reaped a certain benefit on the way home from these climbs, though this was somewhat compensated for by their being first back to camp and so having to melt up snow and prepare meals. Great credit is due to the volunteers who took this equipment up and down the ice-falls and established the camp, and mention should not be omitted of "Spinach," Ralph Rink's mountaineering pack-horse, who packed several times over the glacier to the foot of the ice-fall where the back-packers took over.

First ascents were made by ladies of the following peaks: Athabaska, Columbia, Nigel, North Twin, Snow Dome, South Twin, Terrace and "A2;" while other first ascents were "D2," "K2," and "N2."

A fly camp was also placed at the foot of the Saskatchewan glacier to which several members went. Mt. Saskatchewan proved however to be too far from this camp and the first ascent, by ladies, of Terrace was made instead. Picnics and hikes through the meadows and over Tangle creek provided interesting outings for those less actively inclined and the photographers and artists reaped full benefit from their endeavors.

We were glad to have Edward Feuz and Christian Häsler with us again as guides, kindly loaned by the Canadian National Railways to whom our thanks are due not only for this but for other help in enabling us to hold "a most successful camp." To the guides, both professional and volunteer, the thanks of all members are due for their untiring efforts in carrying out a large climbing programme.

The camp fires as usual provided instruction and amusement with interesting contributions from members and guests. Mr. E. W. Mills gave a clear account of his recent trip to the North, with its history and the climbs made and the records found; and Mr. R. T. Zillmer told of his trip through part of Tweedsmuir Park to Bella Coola; and Mr. F. Wiessner of his successful ascent of Waddington. Readings were given by Mrs. C. P. Fuller, Prof. N. Goodrich, Mr. W. J. Sykes and Mr. Leo Tiefenthaller, while Mr. W. T. Read again organized his dramatic society.

The following passed the test for Active membership:

Mt. Athabaska:

July 18—W. Block-Hiller. July 19—C. Cranmer.

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July 21—Miss C. Bastow.

July 22—P. S. Davis.

July 23—Miss E. Richardson.

July 25—Miss M. Cole, Miss M. Wood, A. J. Snow, W. G. Rook.

"A3":

July 18—Miss D. Smith, Miss E. Knowlton, V. Fritz.

Mt. Columbia:

July 18—Miss C. Reid, Miss K. Chapman, Miss J. MacDonald.

July 20—J. Brett.

July 23—Mrs. Spofford, Miss M. Read, A. Carscallen.

"K2":

July 17—Miss E. Gullion, Miss K. Dunniway, P. Purves.

July 18—Miss B. Stonham, Miss E. Callan, H. Honens, M. Harding.

North Twin:

July 21—Miss D. Hartley, Dr. J. Conant, P. Johnson.

ANNUAL CAMP VISITORS

CANADA

British Columbia—Britannia, Cranbrook, Monte Creek, New Westminster, Saanichton, Vancouver, Vernon, Victoria.

Alberta—Banff, Bellevue, Calgary, Edmonton, Jasper, Lethbridge, Ponoka, Winterburn.

Saskatchewan—Regina, Saskatoon.

Ontario—Hamilton, Ottawa.

Quebec—Montreal.

Nova Scotia—Halifax.

GREAT BRITAIN London, Oxford, Glasgow.

UNITED STATES

California—Berkeley, Ojai, San Francisco.

Colorado—Boulder, Denver.

Connecticut—Norwich.

D. C.—Washington.

Illinois—Evanston, Hollywood, Peoria, Wilmette.

Massachusetts—Boston, Cambridge, Springfield, Worcester.

Minnesota—Minneapolis.

New Hampshire—Hanover.

New Jersey—East Orange, Summit.

New York—Buffalo, Brooklyn, New York City.

Oregon—Eugene, Portland.

Ohio—Cleveland, Columbus.

Pennsylvania—Conshocken, Merion.

Wisconsin—Milwaukee.

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Altogether one hundred and sixty (with crew) were placed under canvas, representatives attending from The Alpine Clubs of England, America, France, Switzerland, Mexico; The Ladies Alpine Club, The Ladies Scottish Climbing Club, The Royal Geographical Society, The Appalachian Mountain Club, B. C. Mountaineering Club, The Colorado Mountain Club, The Mazamas, The Mountaineers, The Sierra Club, The Obsidians, and The Yale Outing Club.

For the Minutes of the Annual Meeting see *The Gazette*, No. 31, June, 1938.

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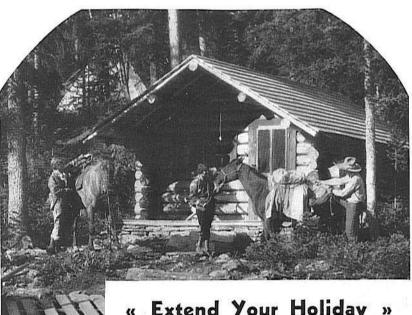
—is strongest in Jasper National Park. Here Mount Athabaska, Mount Edith Cavell, and many others almost as high, attract ambitious alpinists from far and near. The famous Columbia Icefield—hitherto a remote wonderland of mountains and glaciers—is now a pleasant automobile ride from Jasper, the only route by motor all the way to this spectacular region.

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Also, Mount Assiniboine Lodge, Lessee—Erling Strom, open July 1 to October 15 (rates on application).

Reservations for services of the Swiss Guides at Lake Louise should be made now.

Members of the Canadian Alpine Club will be welcome at the Sky Line Trail Hikers' Camp in the Ptarmigan Valley—August 4 to 7. Rates—\$20, including conveyance of duffle between Lake Louise Station and the Camp. For further information communicate with the Western Secretary, Dan McCowan, Banff.

For fares, literature, etc., communicate with your nearest Canadian Pacific Agent

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