

THE CONQUEST
OF THE
NEW ZEALAND ALPS

SAMUEL TURNER



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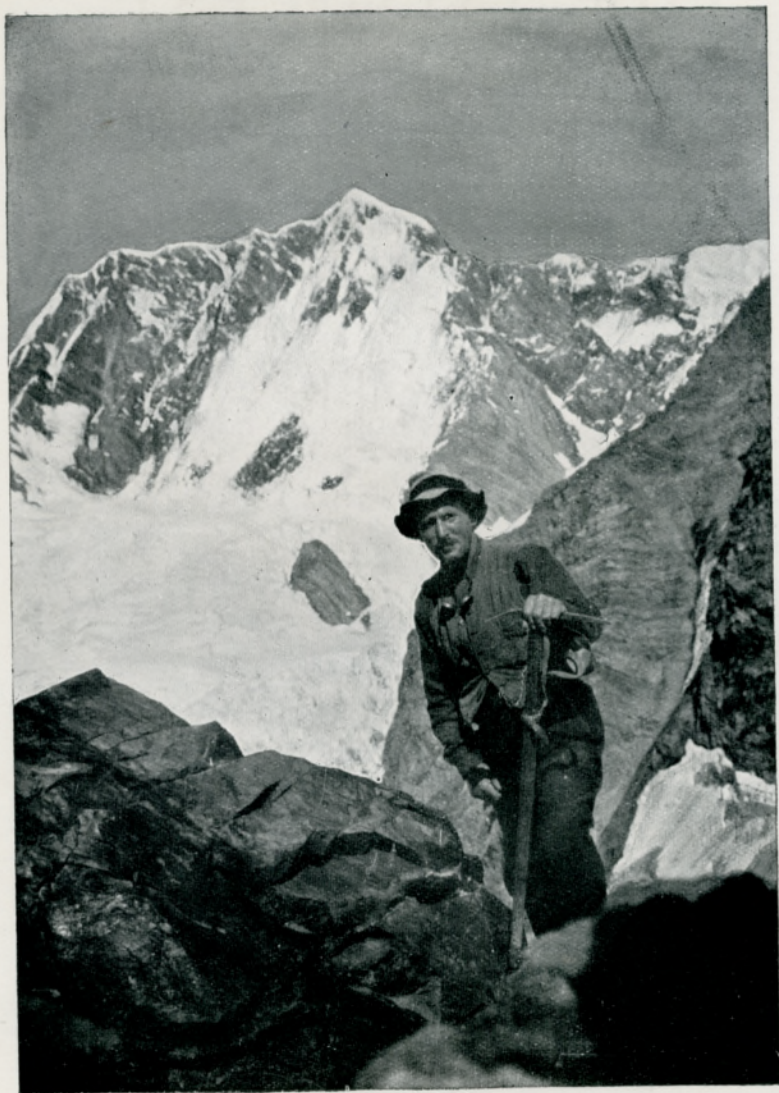
THE CONQUEST
OF THE NEW
ZEALAND ALPS

BOOKS BY
SAMUEL TURNER, F.R.G.S.

**MY CLIMBING ADVENTURES IN
FOUR CONTINENTS.** With 100
Illustrations.

**SIBERIA: A Record of Travel,
Climbing and Exploration.** With 2
Maps and over 100 Illustrations.

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MOUNT COOK, TASMAN FACE.

The Author in the foreground.

Frontispiece.

THE CONQUEST OF THE NEW ZEALAND ALPS

By SAMUEL TURNER, F.R.G.S.

ILLUSTRATED

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TO
MY WIFE AND FAMILY

First published in 1922

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8 DEC 1986

FOREWORD

“THE Conquest of the New Zealand Alps” is a frank description of actual pioneering, exploration and climbing of New Zealand’s most difficult mountains.

Twenty-six years ago I viewed the highest Swiss Alps from two minor summits and became impregnated with the climbing microbe, which fed on several seasons’ conquests of the best peaks in that country. In 1903 I had a winter expedition of exploration and climbing in the Siberian Altai Mountains, for which the Imperial Russian Geographical Society awarded me their medal.

Snatching six days from a business trip to South America, I slept 20,500 feet up Aconcagua. Having climbed eleven seasons with luck, I have been enabled to conquer New Zealand’s most difficult mountains more than once.

My last of seven recent pioneering, exploration and climbing expeditions was February and March, 1921. I have spent about two months each season in very strenuous and ceaseless activity. I have thoroughly trained myself before going into the high Alps by climbs of all kinds so convenient to one’s home in this mountainous country. During recent years I have had my share in conquering

for the first time our most difficult peaks, about 9,000 feet, equal in difficulty to, but very much more inaccessible than, the Grepon, Charmoz, or similar Aiguilles in Switzerland.

I have made ascents of some of the most difficult alone. Hitherto unclimbed, high class ascents have been included, chiefly witnessed by someone for company's sake.

Many thrilling incidents are left to the reader's deduction, particularly on ascents alone.

Lack of help and tried companions has meant more uncertainty, causing one to supply the moral force, hence the chief reason for solitary conquests, which in my case does not mean lack of respect of the mountains.

The best respect a climber can show the mountains is to keep himself in the pink of condition by all kinds of exercises when mountains are not available.

As an example of this I beat the one hour non-stop skipping record on the R.M.S. *Tainui* at sea, near Panama, on December 16, 1921, by skipping with both feet together, no change of skip and no pause of the rope, 10,100 times in one hour, counted by the ship's doctor and a passenger. My pulse was 72 immediately after the skip.

In this, my third work on mountaineering, I do not wish to pose as anything more than a climber of mountains, with a rare gift of balance and natural physical development, helped by careful living (a lifelong non-drinker and non-smoker), original methods of training for mountaineering that have made freedom on the summits even

when climbing alone a special delight and satisfaction in the conquest.

The world is just realizing what very difficult and inaccessible mountains there are in New Zealand, also the exceptional mountaineering skill and endurance a climber must put forth to gain success. The skill of the New Zealand pioneers in the last ten years would gain success on any mountains in the world.

I have never used crampons (claws) or staples, preferring the more skilful and safer step-chipping and cutting, so rare amongst amateurs in these crampon days. Map-making instruments and even the camera (which has been taken on every climb) seem unnecessary weight added to the usual heavy load which each man carries on New Zealand high Alps.

Hints and warnings are given to the young climbers as certain incidents are related.

My climbing companions, with one exception, have always been appreciated, and I wish to remember and acknowledge the help rendered by the following Guides, porters and amateurs: the late Darby Thomson, Peter Graham (Chief Guide, Hermitage), Frank Milne, Alf Cowling, T. C. Fyfe, D. Young, Conrad Kain, Jim Stout, George Bannister; also the amateurs, the late J. R. Murrell (afterwards became a Guide), the late Lieutenant J. R. Denouston, A.C., Mr. H. E. Hodgkinson, Mr. Robertson, Mr. Johns, Mr. N. Murrell, Mr. Challis, Mr. Wiggley, and others.

I am also indebted to Captain T. E. Donne (High Commissioner's Office), B. M. Wilson, Esq., Mr. Frethey (Tourist Department), Mr. T. N.

Brodrick, O.B.E. (Lands Department, also the Marine Department), who have all contributed help in one way or another that has been valuable.

SAMUEL TURNER.

EDELWEISS,
HIGHLAND PARK,
WELLINGTON,
NEW ZEALAND.

February 28, 1922.

P.S.—The first traverse of Mount Cook and other climbs described in my *Climbing Adventures* are not repeated in this work.

S. T.

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THE CONQUEST OF THE NEW ZEALAND ALPS

CHAPTER I

SEASON 1912

Renewing Climbing in New Zealand—Aconcagua hustle—Climbing Mount Sealy—Darby Thomson—Left for Mount Elie de Beaumont—Cut the rope—Summit—Snow bridge breaks—Mount Green and Mount Walter—Using skis—Climbing Mount Cook—Summit Mount Cook—Haast Bivouac—29,000 feet climbing in one week—First traverse Nun's Veil—Mount Sefton in gale—Summit—Turner's Bivouac.

ALTHOUGH very keen to follow up my first traverse of Mount Cook of 1906, business prevented me from doing anything except winter rock-climbing in England and Wales (with the exception of a six days' "Peak-Bagging Hustle" up to sleep 20,500 feet above sea-level on Aconcagua and back to Buenos Aires in 1909). Besides this trip to South America, I made a trip to New Zealand and Australia each year, but had to be back in England again before the New Zealand summer commenced. I came out to settle with my family in 1911; too late for any climbing that year.

One of my most serious drawbacks in organizing an expedition or securing a companion is the fact that I have had to gradually work my way up in business to be able to afford a good climbing

holiday, and not having been settled down in England or New Zealand for long during nine trips round the world. Afterwards, when I came to New Zealand, I have had to content myself with comparative strangers whenever I wanted a companion. This was to prove my chief climbing obstacle in New Zealand, especially after my favourite Guide, Darby Thomson, was lost on Mount Cook.

Having been the guest of the New Zealand Government Tourist Department in 1906, they expressed thanks and were very pleased with my success on that occasion, and, on deciding to continue climbing, they offered me a porter whom I could take on high climbs, and Mr. B. M. Wilson, the Manager, wrote the Chief Guide accordingly. Someone recommended to me Mr. A. Graves of Oamaru as a companion, and we arrived at the Hermitage February 6, 1912. In our eagerness to climb, we started the same night for Mount Sealy, 8,651 feet (this height in the New Zealand Alps would be equal to a peak 3,500 feet higher above sea-level in the Swiss Alps); the weather was doubtful, and not suitable for tackling any but a second-rate climb like Mount Sealy. George Bannister, a well-built, half-cast Maori, aged eighteen years, was given to me as porter. We crossed over the Sealy range on our way to our mountain in a snowstorm, and after sunrise we plodded on through mist over soft snow. To climb Mount Sealy without sleeping out is a fairly long climb, so we had started about 1.30 a.m., and it was about seven o'clock when we reached the summit of a peak which Bannister was certain was Mount



MOUNT COOK AND MOUNT TASMAN AND MOUNT COOK RANGE.



THE HERMITAGE, MOUNT SEFTON AND FOOTSTOOL IN BACKGROUND, THREE MILES AWAY.

Sealy, despite my stating that we had not crossed the glacier over which I had walked in my attempt with T. C. Fyfe in 1905. Just about the middle of the debate the mist cleared and revealed the summit of Mount Sealy.

50 We hustled off the peak and made for Mount Sealy at all speed while it was clear. We had, by mistake, climbed Mount Annette, 7,351 feet above sea-level, but did not name this peak, which has since been climbed and named. It was a good walk and climb to reach the summit of Mount Sealy, so we lost no time in getting across its small dry glacier and up the first snow slope (up the south-west ridge); only one or two crevasses caused us to take notice, and we reached the top of the couloir leading to the summit rock in fairly good time. The weather had now become perfect, and the summit of Mount Sealy afforded a great panoramic view. Pulling myself up with both arms to the summit rocks, I took cramp in both my hips at the same moment, which made it difficult for me to hold on and get on to the ledge of rock on the summit. This cramp was evidently caused by excessive skipping, making one set of muscles too hard as compared with others. I altered my system of skipping and training after this.

From the summit of Mount Sealy we took a good round of photographs, as it is one of the best view points in the New Zealand Alps. One can appreciate the height of Mount Cook from that summit, and it gave me a keen determination to climb it on the very first opportunity. We spent about two hours on the summit, then hurried down back to the Hermitage. The two climbs

and back to the Hermitage without a bivouac were evidently too much for Mr. Graves; his tired condition became known to the Chief Guide, so I came in for some criticism from Graham for starting the climb so suddenly. I pointed out that the extra climbing caused by the mistake made the climb hard, and asked him for a porter who knew more about the mountains, to which he said he could not give me anyone better unless I would engage a Guide.

We had a spell of very bad weather; then, one very stormy night, Darby Thomson was introduced to me in the smoke-room. During a mountaineering discussion he impressed me by his self-contained impartial manner as a man who would not allow anyone to influence his opinion for or against anyone he came in touch with, and this seemed to be a very desirable trait of character.

Although Darby had only made one or two first-class climbs as second man, and had not been up the routes and mountains I intended climbing, his manners so impressed me that I decided to risk anything with him. He was a good build for a mountaineer, thick set, 5 feet 7 inches in height, therefore not too tall. I pointed out to the Chief Guide that as Darby had only made one or two ascents, that he should be given to me as a porter, more especially as he had only about the previous season commenced to climb. The Chief Guide argued that Darby was a good Guide, and that he had been told or had the routes to the summit of many mountains pointed out to him. This is not like a Guide in Switzerland; but in New Zealand the pay for a Guide is about as low as anywhere.

therefore almost as soon as they handle an ice-axe they receive Guides' pay and are called Guides, and the porter was in those days practically non-existent. This made climbing at that time more enterprising and uncertain, because one had to trust men on their appearance.

My first impressions of Darby lasted all through my climbing experiences with him, and is still unaltered; he was a fairly well educated man from the West Coast, used to bush-felling, and therefore just the man for step-cutting. I was so delighted with him that we arranged to start immediately for the top of the Tasman Glacier peaks, Mount Elie de Beaumont (10,200 feet), Mount Walter (9,507 feet), Mount Green (9,305 feet), sleeping at the Malte Brun Hut. We had made plans to climb these three peaks and Mount Cook before returning to the Hermitage, also Mount Tasman, if Mr. Peter Graham would join us to replace young Bannister at the Haast Ridge. In order to cover the ground as quickly as possible while the weather was fine, we decided to take skis from the Malte Brun Hut to the top of the glacier, and after our climb to ski down to the hut. We left for Mount Elie de Beaumont about three o'clock, and reached the top of the glacier, where we left the skis. The climb of Mount Elie de Beaumont was made interesting by a big break across the ice face of the mountain; this compelled us to take to the rock and climb up an overhanging piece of ice which at first was too much for Darby Thomson; but on my asking him to let me try to get up, and intimating that it would have to go, Darby said if I could get up

so could he, and up he went ; I followed, but we failed to get Mr. A. Graves and Bannister up after us. The position was such that we deemed it advisable to cut the rope, and let Bannister take Graves round and across the break. We went to meet them, but Darby insisted on going down alone into the big gorge-like crevasse to give them a hand. We were soon enjoying a well-earned rest and a splendid view, sitting on the top near edge of the crevasse. There were one or two other small crevasses and steep slopes, but otherwise this climb does not afford much climbing satisfaction, although the summit (up which I ran the last 200 feet, up a very easy slope) affords one of the best view-points in that group of mountains. Its height, 10,200 feet above sea-level, is several hundred feet higher than any mountain near it ; this enables one to get a clear, uninterrupted sight of all the big mountains. We had refreshments and rest and took photographs, and I picked out one mountain after another like renewing old friendships. Every mountain looks different from different view-points, and one of the most interesting sights from every big summit is to pick out and recognize the characteristic facial expressions of the big mountains. It was a great inspiration for me ; and although this was the third ascent of Mount Elie de Beaumont, it afforded a certain amount of satisfaction, because on the first attempt I led T. C. Fyfe and Ross up this mountain in deep, soft snow up to the knees, and sometimes deeper, and had plodded over six hours out of about eight to reach a very exposed spot on the mountain in dense mist and blinding

snow-drift, which was very near the summit. I asked my companions to take a hand at the hard work, but they preferred to turn back rather than take the lead. The mist did not clear to let us see just exactly where we were, and neither of us know to this day how near we were to the summit, probably 200 feet off; however, being the leader, I was 30 feet nearer than Ross, who was the middle man on the rope, and from my position it seemed to me that I was just on the brow of the summit, but in a dense fog it is not possible to say with certainty.

What a lovely day we were enjoying on this summit, just the very opposite to the above previous attempt. Mount Elie de Beaumont is the only mountain like Mount Blanc of the Hermitage District. We descended in quick time, and on regaining our skis it was a great treat to travel down the glacier at a good speed instead of walking. We each had a spill or two before we covered the several miles to the Malte Brun Hut, practising the telmark to get round a crevasse with the snow not soft enough. We covered what would have taken about three hours walking in about twenty minutes, and were soon in the hut enjoying a very early dinner just as we had planned. The extra time and energy saved gave us a good rest, but Mr. A. Graves had decided that he was too tired to continue climbing. We started early next morning and took our skis to the head of the glacier again, pushed them in the snow, and made for the slopes of Mount Green. Darby Thomson was leading when a snow bridge gave way, but Darby just managed to throw himself back,

and I luckily gave him a tug on the rope which landed him on his back on the side of a big crevasse. Mount Green was a very good climb, the rock spur up which we climbed having sufficient ice on it to make us careful, and the steepness of the snow slope is something out of the ordinary. It was an interesting short climb, and after spending sufficient time on the summit to take in the surrounding view in a cloudless sky, we climbed down off the peak, and Darby and Bannister agreed to my suggestion that we should climb Mount Walter. We climbed down across a big break, and were soon cutting up the sharp cone of Mount Walter, which is not unlike the sharp cone summit of the Minarets. The summit of Mount Walter was particularly sharp that year, and there was not room for two of us to stand on the summit together. Those two peaks in one day will always be a good bit of climbing, and there is not much chance of the climber ever finding that good conditions make these climbs much easier. The descent was quick, because the anticipation of a ski run down to the hut gave us the prospect of a most enjoyable treat. The glacier had hardened somewhat by colder weather setting in, and made our progress too speedy in places and the hard snow too difficult to telmark round the crevasses. This day was not altogether a success, because one requires fairly soft snow to land on when the uneven surface of the glacier causes one to embrace the snow and sit up and take stock of the easiest way to side-step the crevasses. It was the means of saving us about two and a half hours, and the extra rest in the Malte Brun Hut was just what

we required to continue our ambitious programme after three peaks in two days, and immediately start on the first stage to climb Mount Cook. At daylight next morning Darby Thomson, George Bannister and myself went down the glacier to the Ball Hut (Graves had gone down the day before). We had a good rest at the Ball Hut, as we arrived there early in the day. Darby Thomson went down to the Hermitage with a message from me to Peter Graham asking him as arranged to come up to the Haast Bivouac three days later to take the place of Bannister, because it was necessary to have two very good men as leader and second to climb Mount Tasman.

We left the Ball Hut early in order to have a good rest at the bivouac rock on the Haast Ridge. On our way across the Tasman Glacier we met Guides Clark and Murphy, with Messrs. Wright and Chambers. They informed us that they had climbed Mount Cook via Green's route. We congratulated them on having made the first ascent of Mount Cook by this route, which had conquered all the New Zealand climbers up to then (hence my reason for attempting it), and as we had made up our minds, very probably before this party, to climb Mount Cook by the same route, we decided to climb it while I waited for Mr. Peter Graham to join us in an attack on Mount Tasman. After about four hours' climbing we reached the bivouac, and after taking photographs, pitching the tent, and having a good meal, we retired to rest with the hope of leaving at 11 p.m. Turning into my sleeping-bag, I was unable to sleep, and when our little alarm clock went off, denoting that all chance

of sleep was at an end, we scrambled out of the tent and had breakfast. I was not feeling too willing to commence the climb, therefore rather glad to find an excuse in discovering that it was raining; and as it does not require much persuasion to doze off at such an unearthly hour, we tried to sleep for another hour. Finally we started at 1.30 a.m., up over the snow and round the left of Glacier Dome. We turned towards the plateau near a huge boulder, where Bannister slipped into a hole. I clutched the rope, but it was unnecessary as he scrambled out all right. We each had turns tumbling into concealed crevasses and holes covered by snow. Although we had two lanterns (it was very windy), the shade of the crevasses could not be seen; we pushed along at a quick pace towards the slopes of the Silberhorn. Here we took quite twenty minutes to cross a huge avalanche of snow and ice, which had enormous blocks of ice in it. We were entering the home of the avalanche. The precipitous slopes of the Silberhorn, from which ice 100 to 200 feet thick, and 200 to 300 yards long, had by the spring thaw broken away and crashed down on the plateau below.

Our route now lay across slopes of snow on the spur of the Silberhorn and on to the Linda Glacier, over which we carefully picked our way in the dark, and came to square blocks of ice which had been formed by this glacier of the most peculiar formation possible; instead of being crevasses such as most glaciers form by the ice crawling over a rough rocky bed, the glacier was formed into blocks, which indicates that the glacier bed

is smooth, and the ice had broken by its own weight, forming a most unusual sight—square blocks of ice 200 to 300 feet thick and from 200 to 300 square yards were lying at an angle of between 20 and 30 degrees of a slope, sloping in different directions, causing wide V-shaped holes 200 to 300 feet deep. In some places where two sharp points met it caused a natural bridge, very narrow. This was the only way from one to the other, which in the dark and the shade of the lantern made this narrow stride a careful business. In some places we had frail snow bridges, and had to risk their breaking. We thought that we should be able to use the previous party's steps, but found it too difficult to follow them in the dark. We found it difficult to get off one square block, but the lucky snow bridge which connected one block with another was found at last, and we carefully picked our way across. The bit from the middle of the Linda Glacier and up to the head has more crevasses than the first half, and we had numerous snow bridges. Some of these bridges were perfect in shape and span across great depths. We put out the lanterns and rested near one of these perfect snow bridges, and prepared breakfast, but this early breakfast before sunrise, sitting on the remains of a huge avalanche about 9,500 feet above sea-level, was a mistake, for we stood and froze in order to have some hot tea; it did not take long to make us cold again, and I was glad to start after breakfast, about 5.30 a.m.

If you look at the Tasman and Hooker sides of Mount Cook it appears to be quite a solid block of mountain, but if you could have seen the view

from the route we took it would astonish you, as there is a natural highway up the glacier right into the very heart of Mount Cook, which is quite a huge hollow fed by the ice and ice-snow avalanches which pile themselves on the glacier in fantastic confusion. The narrowest part is about 10,000 feet high up on the glacier behind the long black ridge on the right of the Tasman side of Mount Cook at the top of the ridge, and we actually walked up the glacier quite 1,000 feet higher than the top of that ridge and up under steep summit rocks. As we mounted the steep slopes under these steep precipices in the heart of Mount Cook the sun made us very warm, and formed a heat mist which lay around the ridge and these slopes. We soon gained the rocky ridge of Mount Cook, about 1,200 feet below the summit, and it afforded good climbing; but I will not weary you with details, except to say that the rocks were steep and covered with snow. We carefully climbed on to the long sharp ridge which connects Mount Cook's summit with these summit rocks, and although the previous party had cut steps they were almost useless to us, and they had to be nearly all cut over again, with the disadvantage of making the steps weaker.

It took about two and a half hours' careful walking over this precipitous snow face; it was in fair condition and we were lucky, and once or twice I stood and looked down 6,000 feet on to the face of the mountain, which was as steep as it is possible to be. It was up that same face we did the first half of the traverse of Mount Cook six years ago, and I quite realized the significant

remarks of Guide Graham, who told me that the ascent of Mount Cook by that route was abandoned, owing to being too long; while the descent down Green's Couloir, the way we descended, had also been abandoned, owing to its being too dangerous. Easy routes up Mount Cook have been discovered since. I am sure that but for this sharp, long, exposed ridge of Mount Cook connecting the summit with the summit rocks, which could not be crossed in bad weather, many more climbs of Mount Cook would have been recorded. There is, however, the Hooker route, up which two Guides climbed with Miss Du Faur last year, which has no exposed snow ridge of this kind. The rocks lead to the summit direct, and that route is the easiest way up which any good athlete with Guides might get to the summit of Mount Cook. Not so the route which we were now taking.

It was with a feeling of freedom that we at last reached the final steep slopes forming the cap on the summit of Mount Cook. The snow was very soft and in bad condition, and we had to go carefully half-way up the cap. There was a big hole, like a cavern, some distance under the summit. This cave in the snow was not there six years ago, and the summit cap seemed quite changed. From this hole a crack extended right across the mountain, over which it was necessary to climb with care, as the snow was particularly soft. Making a zigzag course, we reached the summit at 1.20, in exactly eight hours fifty minutes, nearly three hours quicker than the previous party.

The summit of Mount Cook this year is quite

250 feet higher than six years ago, and the shape has entirely altered. Six years ago the summit of Mount Cook was a round cap about 20 feet across before it dipped suddenly. This year the wind from the south had piled up the south side with snow quite 3 feet higher than the north side. The hollowed-out part was about 6 feet wide and quite 20 feet long, sloping towards the summit rocks. In this hollow I had about forty minutes sleep out of the one and a half hours we remained on the summit. There is nothing like a nap in the middle of the day following a sleepless night, and Mount Cook summit was nice soft snow, sheltered from the wind and warmed by a very hot sun. I evidently set a good example, because Thomson lay down to sleep not far away from me. We took each other's photographs, ate a good lunch, and attempted to realize the view.

I called Thomson and Bannister's attention to the fact that we could actually see the farmhouses on the plains, and Thomson picked out Mr. Somebody's farm down in South Westland. We saw the sea on the West Coast at times and also the Bight at Timaru, while the panorama of mountains was unique even for New Zealand. Mount Sefton was bathed in clouds, as it was when I was on Mount Cook's summit six years ago; Mount Tasman was magnificent, with its sharp ridge sparkling in the sun; Mount Dampier, Mount Elie de Beaumont, the Mount Blanc of the Mount Cook range, also looked very bold, while the knife-like ridge of Mount Green could be seen outlined in the distance against the slopes of Mount Elie de Beaumont. It was a

glorious day and a more glorious view. It pleased Bannister so much that he could not attempt a description. It was the first time a Maori had reached the summit of Aorangi, Cloud Piercer, or the long white cloud, as his forefathers called it, and afterwards called Mount Cook; but although most of New Zealand is now owned by white men, some of whom do not know the consideration due to the native race, nevertheless the mountains were never bought from the Maoris, and must belong to that race still.

I am therefore pleased at being the first man to take this young Maori, only eighteen years old, to the summit of New Zealand's highest mountain. There was a bitter cold wind blowing from the south, and we did not stand on the actual summit more than about twenty minutes before we commenced the descent. The sun had gained its greatest warmth, and we found that a very severe thaw had set in, and our steps were nearly all obliterated, thus requiring the greatest care. My companions weakened the snow as they were going across the crack which extended from the ice cave; it gave way, and I sank up to the arms in the hole, my legs dangling in space. I called to Bannister to haul me out, as it would have been dangerous to have tried to struggle out; but he, being inexperienced and not knowing my reason for asking to be pulled out, stood still, while Thomson, quickly jumping over the crack, hauled me out, without the necessity for any struggle with the snow on my part. We carefully climbed across the precipitous face already described and gained the summit rocks.

I think the best way over that steep ridge is to walk on the top of it, unless it is corniced (that means overhanging). Walking on the sharp ridge summit would be very much quicker.

We paused on the summit rocks for a few minutes to get a drink, and then proceeded to climb down the remainder of the rocky ridge to the place where we joined the steep snow slope. We were now very dry, and would have given anything for a drink, but although we could hear water bubbling down underneath the rocks, we could not get at it; so we climbed on to the slope, which to our surprise was quite sloppy and very bad going, if not dangerous. We had noticed coming up that the slope we were now climbing over was dangerous, on account of stones falling from the steep rocks of Mount Cook, but it was Thomson who remembered this coming down, and as soon as he sounded the warning I insisted on running across the slope. Some people believe in instinct; well, I am one of those people, because it has saved my life many a time. My haste was the same instinctive feeling that something was going to happen, and sure enough a big, black-looking stone shot down the slope about 10 to 15 yards behind us, and several others quickly followed, so we felt pleased with ourselves. This incident called our attention to the dangers from snow and rock avalanches in climbing Mount Cook by Green's route. During the ascent we had crossed about a dozen huge avalanches, and became so indifferent to them as to actually have breakfast sitting on a piece of a big avalanche. This warning, written in 1912, and published by me in the New Zealand

Press 1914, was unfortunately prophetic. It was on the spot that we had breakfast that the avalanche overwhelmed Guides Darby Thomson, J. Richmond, Mr. S. L. King, A.C., two years afterwards. We were in the home of the ice and snow avalanches, all pouring on to the head of the Linda Glacier, which is like a huge cup collecting all the ice and snow to fill the plateau below, which in its turn feeds the Hockstetter Ice Fall. It was a most thrilling sight, and of all the glaciers I have ever been on in the countries I have climbed in, the Linda Glacier takes the first place, being circled by a gorgeous spectacle of ice-covered mountains alive with avalanches which the sun strips off their slopes.

We paused for a drink of tea, but decided not to wait until the billy boiled. Before leaving the spot we witnessed a big avalanche (which echoed in the mountains with the roar of its crash) off the steep slopes of Mount Cook not far behind us. We had to keep a sharp look out for ice coming off Mount Dampier's steep slopes, as we heard reports like the crack of the rifle—the climber's first warning of the on-coming of one of these almost unavoidable dangers. Our progress was slow from the top to the bottom of the Linda Glacier, because the snow was very deep and soft, and the snow bridges, which were frail in the early morning before sunrise, now became more frail, and we had to resort to all the skill we could put forth to get across one or two of the worst.

We plodded along stoutly in snow deeper than our knees, and into all kinds of concealed holes caused by the exceptionally hot sun; and instead

of taking four or five hours to reach our camp, we took about seven and a half hours going as hard as we could. We reached camp just about dark. Bannister took himself off the rope without giving us warning, and the loose end of the rope brought a big stone down after us, which just missed my head. It is surprising how many lucky escapes a climber is able to record, even in one season's climbing. We slept well that night, but as Peter Graham did not come up in order to climb Mount Tasman, I decided to go down to the Hermitage for a day or two's rest. The weather was so bad that I had decided to watch it from the beginning of the season, and if it allowed me, I would take a holiday about Christmas time. It had not given me a chance until the 14th of February, and now I had selected my time the weather was very changeable, hence the reason of my rushing the peaks, and, as mentioned, climbing over 29,000 feet in one week, and traversing over 60 miles of moraine and glacier, from the Hermitage and back again; this includes the ascent of Mount Elie de Beaumont, Mount Green, Mount Walter and Mount Cook, and back to the Hermitage. We descended to the glacier and had morning tea, and continuing across the Tasman Glacier I was surprised to meet Peter Graham with a party of tourists, the largest I had ever seen on the glacier in one day, about eighteen people. We continued to the Ball Hut and on to the Hermitage, finishing the latter part of the journey in three and a half hours.

The particulars of that week's hustle are as follows: We left the Hermitage at 2.30 p.m.

Wednesday, reached the Ball Hut, 16 miles away, that night, left early Thursday, and reached the Malte Brun Hut soon after lunch; climbed Mount Elie de Beaumont early Friday, and back to the Malte Brun Hut the same night; climbed Mount Walter and Mount Green Saturday; went down Tasman Glacier to Ball Hut Sunday morning and climbed up to the Haast Ridge Bivouac the same afternoon; climbed Mount Cook the following day Monday and back to the bivouac, and on Tuesday descended to the Hermitage by 5.30 in the afternoon, just one week and two hours. This was a real hustle while the weather lasted.

All my climbs that season had been done in the company of Darby Thomson and George Bannister, with the exception of Mount Sealy and the Nun's Veil, climbs which I made with G. Bannister. None of the routes were previously climbed by either of us, so we all covered new ground—the unknown so far as we were concerned. Most of my New Zealand climbs have been done in the same way. I had been up the Tasman face of Mount Cook, and Thomson had been up the Hooker side of Mount Cook, but neither of us had been up Mount Cook via Green's route. Thomson, however, had a good knowledge of the way of the mountain, and although I made many suggestions and consulted with him on many points, in the main he led me and Bannister to success.

The luck of good weather compelled me to ignore my insteps, which had become very badly inflamed; and Peter Graham, the Chief Guide, hearing that I was going out again, pushed a

doctor into the bathroom, who examined my insteps, and stated that blood-poisoning would set in if I did not lie up for a few days. The weather became bad again, and all climbing was off for some days, so this enabled me to lie up and take the doctor's advice. On the weather clearing, and while waiting for Darby Thomson, who had been taken for another climb, I took a porter, G. Bannister, and set out for the Nun's Veil to do the traverse.

This peak is 9,000 feet above sea-level and 7,000 feet of climbing from the valley. It is the highest in the Liebig Range, which Ross, Fyfe and myself tried to climb from the Ball Hut in 1905, but took too much time circling the rocks round the snow slopes on the slopes of Mount Priest's Cap, and reached the summit of Priest's Cap too late to climb the Nun's Veil precipices, which looked very formidable from that summit.

This time I intended traversing Nun's Veil by way of Gorilla Creek. Starting on horseback about 3 p.m. with Bannister, we crossed the Tasman and afterwards the Murchison Rivers, but we were delayed about two hours over the latter owing to its flooded state and the risk of quick-sands. It was just after sunset when we reached the Shepherd's Hut at the foot of Mount Rotten Tommy in the Gorilla Creek, where we intended sleeping and unsaddling the horses. We left the horses in a fenced-in paddock and made ourselves as comfortable as possible in the hut.

Nun's Veil had been climbed three or four times, but it had never been traversed up one side and down the other. Bannister had not

climbed any mountain in this range, so my knowledge of Nun's Veil seen from the Priest's Cap, and Peter Graham's description of how the climb could be done and how the traverse might probably be done, was all we had to rely upon. This made the traverse much more interesting, seeing it had much of the unknown about it. Other parties had camped two hours further up Gorilla Creek, but we were making the traverse, and we had to come back for sleeping-bags, etc., which would make sleeping up the creek out of the question.

We started at dawn, walking quickly up the creek, taking an occasional look at the huge overhanging precipices of Rotten Tommy. Nun's Veil is a long way back behind the Liebig Range, and it took us about two and a half hours' good travelling to reach the glacier, which we climbed on to from a rocky shoulder on our left at about a third of the distance up the glacier. The snow at first was in good condition, and we made quick passage, only pausing to feel for snow-covered crevasses; but once in the centre of the glacier we had deep snow. We took it in turns step-cutting in ice and tramping steps in soft snow, in order to travel quickly. The crevasses covered with snow gave little trouble, and we had no hard step-cutting until we passed a huge crevasse in the centre of the glacier. Then we cut across an ice face, and found good going up to the left shoulder of the mountain, where we had a rest for photographs in a rocky spur. Continuing along a hollow made by the drift-snow, between a rocky ridge and the top of an ice slope, we walked up quickly to the exposed face of the glacier, and again taking turns

at step-cutting and snow step-breaking, we worked across to the right of the mountain up on to the right ridge of the Nun's Veil. We kept a sharp look out for a well-known bergschrund, which we expected would be difficult to cross; but although I sounded carefully to discover its top or bottom lip, I was unable to do so, and we crossed over deep snow where the bergschrund was, and hurried up the last steep hard snow slopes and gained the summit in seven hours from the hut.

The summit of Nun's Veil, although not the best ridge view-point, is nevertheless one of the best, if not the best point to see the Mount Cook range and Mount Cook's Tasman face, and many well-known mountains and glaciers. The morning was lovely, clear and warm, and we had a splendid view and took a number of photographs. After staying about one hour, and leaving our record on its summit, we moved in the direction of Mount Cook, but before finally leaving the summit we paused to take a last panoramic view. Mount Sefton looked bold, and its ridge ice-glazed looked the most difficult piece of climbing within sight, while the mountain itself looked very fine; but Mount Cook, the goliath of the New Zealand Alps, easily looked the grandest mountain. It is impossible to find a more typical mountain than Mount Cook, with its difficult ridges all converging into one summit ridge. The great breadth of Mount Cook at its base, clothed with numerous glaciers, makes it the hub of the highest and most magnificent mountain system in Australasia. I picked out a way down the unknown ridge towards a huge boulder and made towards the head of a

couloir, down which we had some good climbing, and were lucky to find a rock ridge on the left of the couloir just where the couloir became unclimbable. Climbing round a rocky spur, I posed on the rock for a photograph, and within about one hour from the summit we emerged into a huge couloir about 40 feet broad, and about 3,000 feet from top to bottom underneath the overhanging rock wall of Priest's Cap, which was shedding icicles and pieces of stone on to the snow couloir. We had to cut about a hundred steps at first, but after the first 150 feet we came to soft avalanche snow; but the prospect of quickly glissading down in about ten minutes (while it would take about one and a half hours to walk down) was too tempting, and we began the sitting glissade, but had to get out of the way of the various small avalanches which we started by our weight. We paused for a drink half-way down, and after collecting and drinking some water from the rocks close by, we were just going to cross a rock spur to a more inviting part of the couloir when we became aware that the snow slope was on the move, so we hurried out of its track. We stood and witnessed the whole centre of the face of snow for about 2,000 feet downwards form into an avalanche and rush to the bottom of the couloir. We were about to cross on to that part of the couloir, and if it had been one minute later we would have been carried down with it; as it was we expected our part of the slope to go at any minute. I was nearest to the avalanche and called to Bannister to pull on the rope, as I was not sure that I could get out of its way; but luckily a narrow spur of rock

divided the slope in the middle for about 300 feet upwards, and this seemed to give support to one part of the snow. We picked our way down very carefully, cutting steps where it was too hard to glissade and walking where it was too soft.

We were glad to reach the valley about 3.15 p.m., but the traverse was not over yet. We had to climb up a shale and bush-covered ridge (opposite the slope we had just descended). This gave us about 2,000 feet of very uninteresting climbing, and therefore hard going, particularly the last half over a shingle slope. Once on the ridge, we expected a shingle slide to the bottom of the next valley, but found we had very little shingle to slide down, and had to climb up thick bush on another ridge of about 500 feet and across several rotten rocky spurs. We commenced the last mountain slope, but we had about 1,000 feet of bush-climbing which made us slow. Bannister seems to have bush-climbing "at his finger-tips," while I had the bush "in my finger-tips." He would come to a thick bush tree, clutch the thin end of the branches, throw his long legs up about 5 feet and slide down one or more branches to a place where he could perch like an owl (it was getting dark), then he would repeat this performance until over the top of the tree or bush. I attempted to follow his example, but decided that throwing my legs up 5 feet and sliding down the branches of bush was not the kind of climbing I had been brought up to, so I adopted very scientific tactics—so scientific that I defy the greatest acrobat to emulate the series of performances which landed me over the top of the bush. My progress was

very slow, but it would have been slower but for numerous clumps of spear-grass that supplied me with renewed spurts of energy. I have encountered plenty of spear-grass on both the Priest's Cap and Nun's Veil climbs, but I have never yet heard my companions or myself murmuring "Excelsior" while climbing spear-grass-covered mountains, but after having about half an inch buried in a soft part, I have often heard less lofty expressions. We eventually descended into what we thought to be the last valley, but on reaching the river we were surprised to find that it had changed its course and was running against a rock bluff, underneath which we expected to walk between rock and river. The rock up which we had to climb to continue our journey was both shaly and very steep, with the glacier stream washing against its base, and we were some time trying to find a way up, both Bannister and myself trying at once, in order to save time, as it was getting pretty dark. I found a way up the first part, but we had many other difficult gullies and ridges to climb afterwards to reach a slope over which we could walk. The last two or three miles over shingle beds and tussock in the dark was a slow and annoying business, and it was about eight o'clock, quite dark, when we arrived at the hut. After tea I reluctantly agreed with Bannister to return to the Hermitage that night, and although delayed by a hot, strong wind blowing our lanterns and candles out, evading quicksands by slow and careful work, we crossed the rivers and arrived at the Hermitage at 11.45 p.m. We decided that the traverse of Nun's Veil, taking

us sixteen hours, was quick travelling from the hut, but is not a practicable mountain climb, and that so far as we were concerned it was quite a decent bit of exploration.

I don't think anyone who knew what a lot of drudgery climbing there is to be done after the mountain itself is traversed would tackle it. We had practically 6,000 feet of climbing up and down after doing the traverse; that is, after going over the top of Nun's Veil and down to the river level in the first valley, until we crossed over three valleys and numerous ridges to get back to the Shepherd's Hut. It would have been almost as quick to go back over the Priest's Cap. To climb Nun's Veil from the Ball Hut via the Priest's Cap would afford good views and good climbing.

During this 1912 season, while bad weather prevailed which kept us in the Hermitage, I worked out the climb of Mount Sefton by the telescope, and tried to get Peter Graham and Darby Thomson to believe the climb was not as difficult as Fitzgerald in his book had made out; at the same time we could not get the conditions necessary for the climb on the Hermitage side, so we decided upon climbing it on the West Coast side, by which it had once previously been climbed by the late Colonel Head. We slept at the Hooker Hut, and a Mr. Smith of Christchurch and friend and a porter were going over the Copeland Pass at the same time, so we all started together about two hours before daylight. We led the way with lanterns, and were able to extinguish them near the summit of the pass. It was a nice morning,

and the usual cold wind on the pass made us hurry down to the Douglas Rock on the track to the West Coast. This rock is a very fine shelter, and six of us slept under it for the night with the greatest of ease. During the night it had snowed, but we were not to be stopped by fresh snow, and before daylight we commenced to travel up the creek near the bivouac, and soon found a convenient ridge up by a mountain stream. We evaded the scrub as much as possible owing to it being covered with the fresh fallen snow. The creek and snow-covered scrub wetted us through before we had climbed half of the 4,000 feet necessary to reach any place to bivouac, but once on the top of the spurs it was not long before we commenced to unpack our very heavy loads. After lunch I commenced to make the bivouac, while Thomson and Bannister went out and kicked the steps for the morning, and came back with the good tidings that the Douglas Glacier would go, as it was not badly crevassed. We had a very cold sleep on a damp bivouac, and were very glad to make a start on the climb about 2.30 a.m. After letting the tent down and putting some weight on it, we commenced the climb at a good rate, and did not pause until the sunrise warmed us a little before we gained the west side of the ridge.

There was a strong south-west wind blowing the fresh snow across the mountain face—this covered us with ice, which was in itself a further protection against the cold. We rested in a bergschrund on the steep face, and Bannister produced a table-knife out of his rucksack, and we each in turn scraped the ice off our ice-axe shafts and

the back of our gloves, and after a short rest proceeded up the snowswept face, taking a new route in the clouds. We were quite near the summit when the clouds lifted, and in another twenty minutes we reached the summit base, up which we cut our way to the top of a pile of hard snow. We had arranged for the people at the Hermitage to signal and we would flash a looking-glass, but there was nobody at the Hermitage, although we could plainly see the door open. One thing I noticed was that, although the distance from the old Hermitage did not look the two miles when looking at Mount Sefton's ice slopes from the old Hermitage, from the summit of Mount Sefton to the old Hermitage looked quite two miles, because one can see the distances spread out better. The gale blowing while we were ascending the mountain made the people at the Hermitage think that we would not climb in that weather, so they were not on the look out, and we did not rest long on the very cold exposed summit. The hard snow, piled by wind on these two summits of Mount Sefton, varies considerably from year to year according to the drift-snow, and although climbers have taken it for granted that the western peak is the highest, they may or may not be correct owing to the rise or fall of each summit. The twin summits of Mount Sefton are formed by drift-snow on the top of a table of rock which slopes towards Westland at an angle of about 30 to 40 degrees. The rocks underneath both summits are about the same height, as far as I could see. This table of rock, the outer edge of which forms Mount Sefton, is a wonderful formation, down which the

snow and ice flow and drop down a precipice, re-forming in the Douglas Glacier at the head of Landsborough. The year I visited these parts and saw that glacier re-forming itself it seemed to be one jungle of powdered snow. There is not a more exposed place in the Mount Cook district than the great flat slab, that culminates in the twin peaks of Mount Sefton, and it does not invite one to wait long on its exposed summit. Then climbing down off the summit by the very steep hand and footholds we had made, we rested for a while in a wind-swept hole, and soon after we were on the quick descent to gain our bivouac as early as possible. Quickly descending over the snow and ice-slopes and winding our way through crevasses and the narrow ridge which had caused us to be careful in the morning gale, we made good time to Turner's Bivouac, and picking up our equipment, decided that the route down Scott's Creek would be much better than going down the way we had come up to the bivouac. We found Scott's Creek full of all kinds of boulders, and they gave us trouble; sometimes we lowered ourselves down them into the water and round on to the bank again, at other times we took leaps from one to the other, performing all kinds of acrobatic feats. We managed to reach Welcome Flats very wet, and the name of the place seemed to have a double meaning, as we certainly picked a very bad route to get back.

It was a new route, an experiment, and I do not recommend Scott's Creek to anyone after having made a long climb. We managed to get some wood-pigeons cooked in the trackmen's

hut, and were soon feeling very comfortable in the men's old dry clothing. The following day we commenced the journey over the Copeland Pass to the Hermitage. On the way down the Copeland Pass Darby Thomson stooped down, scraped away the snow with his ice-axe and picked something up. I said, "What's that, Darby?" He said, "It is sixpence I dropped when we came up the pass." Darby's father was an Aberdonian, and he knew the value of sixpence, but it only shows what wonderful instinct Darby had. I asked him how he knew where he had dropped the sixpence, and he pointed out a sharp rock where he had dropped it. About four inches of snow had fallen during our absence. It was dark about 2.30 a.m. in the morning when this incident happened, and he did not think it worth while stopping the party in the dark.

We surprised the climbers at the Hermitage when we informed them that we had ascended Mount Sefton, because there had been no high climbing since we left six days previously owing to the boisterous state of the weather in the high Alps. We were very disappointed that no one at the Hermitage had seen our mirror when we tried to flash from the summit of Mount Sefton. The sun had gone too far north to make a good flash with the mirror, but they would have seen it playing about the valley if they had been on the watch. We are probably the only party that knows what it is like to climb Mount Sefton when a south-west gale is sweeping over the top, a typical scene from the Hermitage in cloudy, windy weather.

CHAPTER II

SEASON 1913

Enforced rest—Lost opportunity—Climbing Mount Tasman—
Summit—Climbing arrangement difficult—First traverse,
Mount Johnston—Mount Turner—Summit—Mount Aspiring—
Cascade Camp—Bonnar Glacier—Aspiring precipices—Summit
—Crossing avalanche—Return to Cascade Camp.

HAVING had a fairly successful season in 1912, owing to my having been lucky in selecting Darby Thomson, who proved to be a first-class climber, I felt that as I had taken the risk on some of the biggest climbs with him as leader for the first time, he should be hired to me for this season, and the Tourist Department thought so too, and they asked the Chief Guide to let me have him and also to assist me himself on anything special; and Mount Sefton was my intended climb.

On my arrival at the Hermitage on January 30, 1913, I expected to have Darby Thomson and Peter Graham to climb Mount Sefton, because in the 1912 season during dull weather I had used the telescope and reasoned out with Darby Thomson and Peter Graham how Mount Sefton had been climbed by Messrs. Fitzgerald and Mattias Zurbriggen, and how we could climb it. It was only a question of getting one of the rare occasions when the summit rocks were free of ice.

It seemed to me as though everybody was afraid of Mount Sefton because nobody had even

attempted to climb it since Zurbriggen and Fitzgerald about sixteen years earlier, and nobody seemed likely to attempt it. Darby Thomson and myself had made up our minds to climb Mount Sefton by the Hermitage route early in 1912, and the news got down as far as Timaru, and someone had telephoned to ask if we were afraid of the mountain, although as the summit rocks were ice-glazed it was impossible from the Hermitage side all 1912 season. We had climbed Mount Sefton in a south-west gale from the West Coast side rather than be beaten, and looked forward to climbing Mount Sefton from the Hermitage side the first thing in 1913.

This determination was expressed to Peter Graham, and as nobody had made even an attempt on Mount Sefton, it did not occur to me that there was any likelihood of being forestalled by any other party, because no other party or Guide had ever expressed themselves as likely to try it. Judge of my surprise on hearing that Peter Graham and Darby Thomson had attempted the climb with Miss Du Faur without success just before I arrived. I had come down to the Hermitage early in the season for the express purpose of climbing Mount Sefton, but, despite the Tourist Department's letter, I had to wait at the Hermitage from January 30th until 8 p.m. February 2nd, in beautiful weather and the Sefton Rocks in ideal condition, before anyone would say a word to me about climbing. One of the Guides was doing nothing at the Hermitage, so I tried to arrange to climb the Footstool with him, so as to give me a sight at Sefton, but almost immediately after

this proposal he was sent away by the Manager with a party of tourists to climb the Copeland Pass, and Darby Thomson had been sent before I arrived with another party of tourists to climb Graham's Saddle. The Sefton Rocks were in good condition, and, given Darby Thomson and another man, we could have climbed it during the three days I had to wait for the return of Peter Graham—it was a rare chance lost. After his arrival there was no porter available. Peter Graham refused to climb Mount Sefton with me until Miss Du Faur had climbed it with him; therefore all he would do was to climb Mount Tasman, to which I had to agree. Darby Thomson came back next day, and we started for the Ball Hut in the afternoon of February 3rd to climb Tasman. This climb did not appeal to me very much, because at the latter end of 1912, after Peter Graham failed to come to the Haast Bivouac to climb Tasman with me, he with Alex Graham, after one attempt, climbed Mount Tasman with Miss Du Faur. Now, this season, "the powers that be" decided I was to stand down, after I had had the climb of Mount Tasman, until the Australian lady had climbed Mount Sefton. This shows the difficulties one has in securing suitable climbing companions.

Mount Tasman is, with one exception, the highest of all snow mountains in Australasia; only 874 feet lower than Mount Cook. Its summit is the pinnacle of the largest snow and ice fields in the Southern Alps. On the east it faces and feeds the Great Plateau, which is a saucer-shaped field of ice about two miles by four. The mountain

face presents a broad cascade of broken ice, with very steep snow and ice slopes nearly 4,500 feet from the plateau to the summit, which are one mile across in the broadest part and near the summit ridges about one-third of a mile, which is further extended by Mount Silberhorn, 10,738 feet, and which it is necessary to climb in order to reach the summit of Mount Tasman. From the Silberhorn the long knife-like ridge to the summit of Mount Tasman is, when turned into ice, the steepest and sharpest ridge that could be formed on any mountain. On one side is the west and the other the east coast—quite uninterrupted views. The west face of Tasman's slopes feeds several glaciers, no fewer than twenty-one glaciers being created within five miles of the summit of this beautiful snow mountain. There are also eight peaks, each over 10,000 feet high, within the same distance from this summit, so it will be seen that one is climbing in the very heart of the Southern Alps, and one of the most beautiful eternal snow and ice regions of this part of the world. All the rivers on the West Coast between the Cook and the Waiho rivers, including those two big rivers, derive their source from the twenty-one glaciers in this district.

On February 4th we climbed to the bivouac, 6,600 feet high, on the Haast Ridge, and after a rest kicked steps over the Glacier Dome down on to the Great Plateau. We returned to rest and dinner, and retired for sleep about seven o'clock. We were stirring again at 1.30 a.m. on February 5th, had early breakfast, and started about 2.30 a.m. We found our steps frozen and made good progress



MOUNT SILBERHORN AND TASMAN.



DARBY THOMSON AND SAMUEL TURNER, SUMMIT, MOUNT TASMAN.

over the Glacier Dome and down across the plateau. We walked and chipped steps for the first 1,000 feet and cut round our first schrund-like crevasse, extinguishing our lanterns, which had been blown out by the strong wind several times during our progress across the exposed crest of Glacier Dome. After climbing some broken ice, we rested for a snack about 5 a.m. in daylight, under the top lip of a bergschrund, with long icicles hanging from it, which the sun and wind were just beginning to crack off. We climbed over some lips of crevasses and traversed very loose snow across the face of the mountain, and came to our first sharp ridge on the lower slopes of the Silberhorn. This ridge was not improved by the few casual rocks which protruded through the ice, making step-cutting impossible, and rock-climbing, with an occasional step-cut in between the rocks, careful work. Climbing for about twenty-five minutes up this ridge brought us to a shoulder of snow on the Silberhorn, where we halted for a snapshot of Mount Cook, and the long, exceptionally steep sharp ice-ridge, up which we would have to climb to reach the summit of Tasman.

We hurried to the attack because we were doubtful, owing to the wind, whether it would be possible to hold on to the ridge. The divide connecting the Silberhorn with the final ridge of Tasman was traversed in a very cold and at times freezing wind, which came up the Balfour Glacier, at times threatening to blow us over the sharp ridge. So as soon as we could we cut over the ridge, and luckily found that by careful work we were able to walk along loose snow underneath the ice-

ridge for a little while. This gave us shelter at the right time. But despite the wind, the sharp ice-ridge was more firm, so it was decided to cut on to the ridge again. It was necessary to stand under the overhanging ice-ridge until the leading man cut up above his head, and after cutting the overhanging ice away it was only the work of a few minutes to cut a V-shaped step in the sharp main ridge. Sitting in this with one leg dangling over 4,000 feet of a drop, and the other leg over 3,000 feet of a drop, another large step was cut in the ice to enable the leader to stand up and continue the cutting, while the second man did the straddle-legged business in order to get into a standing position to resume the climb. The wind had increased rather than abated, but we had come too far up the ridge to let anything short of a severe gale drive us off, and after about another 300 feet more of this ridge we were rewarded by a near view of the summit. The last final piece of ice was barred by a wall of ice, so I suggested a rest before tackling it, and tried to find out which of my two companions was the freshest. This worked well, because the last 100 feet or so was cut up in fine style, and this completed a long feat of endurance in step-cutting, which up till then had been second only to the first traverse of Mount Cook. In that traverse we were on the actual mountain about twenty-four hours, as against eighteen to twenty hours on the climb of Tasman, so it made much more step-cutting on the Mount Cook Traverse, but with invaluable rests in between. On this occasion we had no halts worth mentioning and almost continual

step-cutting. This was a good day's step-cutting for Peter Graham and Darby Thomson, and is one more proof that some of the New Zealand ice-men are equal to any in the world.

We only stayed on the summit long enough to take a photograph or two and take a good look around; then, in order to get off the mountain before dark we commenced the climb down. The summit of Mount Tasman is formed by snow being blown up the steep slopes and frozen on the top-most pinnacle. The summit of Mount Sefton is formed in the same way. At the time I was on the summit of Mount Sefton last year, the summit of that mountain was both narrower and sharper, which would be on account of the much colder weather last year than this. It was 2.50 when we reached the summit of Tasman, and about 3.10 when we left it. We were sorry to leave so lovely a view. Clouds beneath us in a south-westerly direction, the Fox and numerous glaciers beneath our feet while all the highest peaks in the Southern Alps seemed to be within our grasp.

We tried to hasten down, but the steps were ice-glazed by the cold wind, and haste with safety was impossible, so we settled down to a steady pace and reached the base of the mountain at sundown, crossing the glacier dome in the dark. I am inclined to think that all were too impatient to get to the bivouac (and perhaps too tired) to light the lanterns. I know it was a trying day for me. Usually the second man has the easiest time on the rope, but not on an iced mountain, where it is necessary in order to back up properly to bang one's ice-axe with all one's might once

or twice for every step cut, while the first and last man take it in turns to cut steps. The idea of banging into the ice is to be able to get a firm enough hold of the ice-slope, so that by winding the rope round the head of the axe one is able to hold either the leader or the other man should they slip during the step-cutting. The best of men slip, so it is necessary to back up in such a way that any slip at any time during the ascent will be without risk. To have an expert climber in the middle of the rope means climbing a difficult peak with the minimum of risk, while a novice or anyone not strong enough to put forth the necessary exertion means climbing with the maximum of risk.

We arrived at our bivouac about 9.30, fully satisfied with the climb of Mount Tasman. This is the third ascent of this mountain in its history. We descended from the bivouac to the Ball Hut for lunch, and proceeded to the Hermitage in the afternoon.

While the high snow-covered rocks on Mount Sefton were unclimbable; soon after Darby Thomson returned from the traverse of Mount Sefton, we started for the ascent of Mount Johnston, February 17, 1912. Instead of camping out across the valley, we decided that, although a long climb from Ball Hut, it might go all right. We reached the Ball Hut in three and a half hours and had a good rest. Making an early start, we crossed the Tasman Glacier and made for the high valley between Chudleigh and Johnston. From there we took the north-west arête, which was very loose rock. After traversing it for some time,

we came to a wide gap between Mount Johnston proper and the ridge we had traversed. This was a great surprise to us, and after we lowered ourselves over the ledge, facing Mount Johnston, and had a good look at the rock face, Darby said we were euchred—that there was no way down, and that there was no way of getting back. It was decided that I should lead down very carefully. Not over-estimating or under-estimating the danger, but by very cautious climbing, we managed to reach the shingle slopes coming down from Mount Johnston.

Then we had to commence to do most of the climb all over again. When we eventually reached the rocks of Mount Johnston, we were rewarded by some very good rock-climbing, good firm rocks very interesting right up to the summit, from which we had a wonderful view of the Mount Cook range. It was a brief stay on the summit because we had lost a lot of time in not knowing that there was a gap between the highest peak of Mount Johnston and the arête, which is practically another mountain, because this gap is about 50 yards wide and quite 1,500 to 2,000 feet of a rock precipice.

We descended Mount Johnston by the north-west face, the same way we ascended. We crossed the glacier just as it was getting dark, and arrived at the Ball Hut about 7 p.m., having been on the climb about fourteen and a half hours.

The following day, February 19th, Darby Thomson thought that we could spend a good day in climbing an unnamed and unclimbed peak on the Mount Cook Ridge, 7,679 feet. He said

he would like to see my name on the peak. We came from the Ball Hut, up the ridge on the left of the Ball Glacier, crossed over the glacier on the top near the Ball Pass; from there, along the snow face at the base of our peak, and then climbed to the summit up the east face, which proved to be a very good rock climb. We descended by the west face to Proud Pass, and down the small glacier to the Hooker Glacier. We made the pass, which is at a height of 7,200 feet to the north of the peak, on the same day. We returned to the Hermitage from this climb and saw signs of chamois on our way down. The chamois seemed to be growing in numbers in the Mount Cook district, and in one instance a chamois attacked a tourist and had to be killed. Its head and its skin is hung up in the Hermitage.

I heard, from a visitor to the Hermitage, that three amateurs were going from Pembroke on Lake Wanaka, to make an attempt on Mount Aspiring, so wired them asking if they wanted a step-cutter and leader, to which they replied, asking me to come on to Pembroke. While waiting at the Hermitage three days for the motor to Pembroke on Lake Wanaka, I went in for wood-chopping to get my arms into good condition, and was very glad to get a chance to prove that I could climb one of New Zealand's biggest mountains and lead a party to success, without the air of a Guide or porter. After motoring to Pembroke, I learnt that the H. E. Hodgkinson Expedition had left for Mount Aspiring, and a friend of theirs, Mr. Johns, a genial deer-stalker, waited for me and drove me in a high-wheeled trap (which was

necessary for crossing the formidable fords of the River Matukituki). It seemed to be a most undignified way of starting for the climbing of Mount Aspiring, which is within a few feet of 10,000 feet above the sea-level and one of the most inaccessible mountains in New Zealand. Two days beyond Pembroke through cattle flats, and beyond the Niger Hut, we came to the first base camp in a clearing in the bush; from here it is about 10 miles to the head of the west branch of the River Matukituki. We made our first attempt on Mount Aspiring from here three days after my arrival. Our party consisted of H. E. Hodgkinson, J. R. Murrell, Robertson, and myself. To my surprise, my companions said that they had never been on an ice-slope before, not even the organizer, Mr. H. E. Hodgkinson. If I had known this while at the Hermitage my services would not have been offered. I never dreamt that three men without previous experience would tackle such a formidable peak, but this is the resourceful stuff New Zealanders are made of—they will have a shot at anything, no matter how difficult of success or certain of failure. It was my own fault and not theirs; therefore I determined to go through with it at any risk, especially so because they placed themselves quite frankly in my hands, and I commenced to try and teach them the A B C of mountain climbing, how to hold their ice-axes on an ice-slope, etc.

They let me read a letter just received by them from a Guide who was temporarily employed at the Hermitage, one of two Guides who had just before leaving the Hermitage given me a few hints

on how to tackle Mount Aspiring. In his letter to them he strongly recommended them to keep the leadership of their own party, and not let me lead them. This made them feel that this proved me to be capable, and that this Guide was jealous of me, so they just did the opposite to his advice. They elected me leader and step-cutter, which I agreed to on condition they would give me a signed statement if successful, and we made a start for the bivouac with the intention of climbing up a bush-covered ridge opposite a second camp pitched about two hours beyond our first camp (which proved to be useless). We abandoned the ridge at the last moment as not a good route, and proceeded along the side of the River Matukituki, until we came to an old avalanche, where we crossed the river and climbed direct to the bivouac up by a mountain stream and up a shingle or rock slide. On our way up we could see the Head camping-ground, used by Captain Head. The rocks on the top of the ridge were quite round, as though the frost had done its work. We did not take long to pitch our small bivouac tent, as we had been in heavy rain for the last three hours. The cooking stoves made us forget the cold, and we retired for the night to make ourselves as comfortable as possible after a little supper. At about midnight it was freezing hard, and I asked for a match, with the idea of looking at the time and making a start, but nobody would give me one; and as all seemed to be very reluctant to make a move, I went to sleep again, and we were not up until about 6 a.m. After breakfast, and while the party were spreading out the kit,



SHOULDER OF MOUNT ASPIRING.



S. TURNER, J. MURRELL AND ROBERTSON ON SLOPES OF QUARTER-DECK SADDLE.

I cut up the ice-slope about 1,000 feet and looked out a route as well as possible, and returned for the rest of the party. Then we cut farther up the slope, but were stopped by a wide crevasse about half-way up, and had to turn back and cut up nearer the precipice on our left. We had no further trouble in finding our route, but the crevasses were very numerous and the ice-face very much broken, so we were pleased when we reached the top of the ice-slope. We prospected the place and picked out the route for the morrow, but decided that nine hours' step-cutting was enough for one man for one day; and as it was getting dark, we saw the need for getting back to the tent, to pitch it before nightfall. So we hurried down as fast as we possibly could, and regained the bivouac just before dark. We had supper, and had retired to rest when the rain started, and continued throughout the night and all the next morning; so we packed the kit and descended to the main camp. The streams on the way gave us plenty of trouble, and we only crossed them after some manœuverings and roping together. We were storm-bound for six days, and had begun to think we were in for two or three weeks' bad weather when it showed signs of clearing, so we decided to climb as long as the weather would allow us. Before the six days' rain Mount Aspiring looked as though a third of its ice had come off the west face, up which Captain Head climbed, and we were very pleased to see it, as we thought it would make it better for us—more rock-climbing and less step-cutting. We started on February 10th at 6 a.m. We reached

the "Head camp" at two o'clock, and pitched a tent, and had dinner and a rest until 10 p.m. We started with two lanterns and picked the way up a dry stream in a dense fog. Not being able to see one another we had to keep close together. We had been up this way once in the daylight, and had picked our route up a dry stream during the afternoon, so we did not expect to get off the track. It was suggested that I had taken the wrong route, the suggestions were cut short, however, by my announcing the ridge, and we came out just where it was easy to find our bivouac. We untied all the kit and spread it out to dry, boiled some soup, and made a fresh start at 2.30 a.m. We had to go slowly in the dense mist, as we were near the precipices of Bottle Valley on our right (named by me on account of its bottle shape, the outlet being like the neck of a bottle). We had to get on to the centre of the ice-slope to evade some wide crevasses on our left, and it was difficult to distinguish anything. We looked for traces of our steps, but found none. The rain had washed them all out, so it was clear that I would have to cut the steps over again. Setting to work with a will, the first signs of dawn were upon us before we had got half-way up the ice-slope, and the black mist we had been climbing through gradually turned grey, and soon afterwards white. As we rose higher up the slope we looked down on the white mist like a sea over the valley, and took many photographs of the peaks in the distance across the valley hitherto unphotographed and unclimbed. We had many snow bridges to cross and crevasses to jump, which kept up the interest.

After several hours' step-cutting I was glad to reach the top of the ice-slope where we had cut up to before. Now came the most interesting part of the steep ice-slope. I cut along the top of a sérac 20 feet long—the only connecting link between the ice-break and the ice-wall. After cutting carefully, I reached a doubtful snow bridge, and had to stand on this doubtful place while the next man came along the sérac; and, considering these men had never been on an ice-slope before, they did very well. I took as much rope as possible and scrambled as lightly as I could up the snow bridge, but on reaching the top of the bridge the sight of the Bonar Glacier made me forget for a moment or two that I was on a snow bridge. The sight was beyond all I ever expected. It was a most beautiful sight, with Mount Aspiring in the background, the shape of a triangle rising out of the most beautifully shaped glacier I have ever seen—just the shape of a saucer. Turning round, I dug my ice-axe into the snow and called for the next man to come along, and held him firm in case of the snow bridge breaking. There was 3,000 to 3,500 feet of a drop underneath the sérac and snow bridge, so the party seemed greatly relieved when they reached the top. After taking in the view and taking a few more photographs, we made for the west face of Aspiring as fast as we could go. All went well until we saw before us an enormous avalanche quite a mile and a half long and one mile wide; enormous blocks of ice which had avalanched off Aspiring, and had covered about three miles distance, filling up some of the most formidable crevasses on our route.

It was no easy task to pick a safe track across this enormous mass of loose ice. Hundreds of thousands of tons had avalanched off the mountain, and then thousands of tons more had avalanched through the fallen mass, making shutes about 20 yards across with a floor as smooth as glass, while the loose blocks of ice were cut as with a plane quite even. The speed of the avalanche must have been terrific. While we were crossing we cast uneasy glances in the direction of Mount Aspiring, where the ice had fallen from, and there were enormous masses ready and loose, which seemed to require but the slightest touch to send them thundering down on top of us. We had a feeling of utter helplessness, and we were not out of danger until we crossed under the last séracs near the ridge. While passing alongside of Mount Aspiring the rocks on our right impressed me as being in the right direction for the west face, but as there was no ice on them I decided to continue on and see if the west face was further on. Climbing up some steep ice-slopes, we came to the rocky ridge that comes up from Stargazer Peak and extends up to Aspiring. We made for a divide in this ridge, and when we reached the crest of this divide it was quite clear to me we had passed the west face of Aspiring (up which the first climb by Captain Head was made), and were on the edge of the east precipices never previously climbed, and that the enormous ice avalanche we had crossed was the west face ice-slope, which had avalanched off. We paused for lunch and to consider the position. Mount Aspiring has four ridges : first, the coxcomb ; next, a very

steep centre ridge, ice-covered ; then the west face, ice-covered in the winter, and very rarely clear like we had it ; then the ridge on which we sat for lunch, with a very steep thumb-shaped narrow pinnacle on our right, which commenced the Aspiring Ridge, which seemed to continue in a series of finger-shaped narrow ridges ; or, to be more correct, the ridge from where we sat in the final slope of Aspiring was serrated. Commencing with a thumb-shaped pinnacle about 250 to 300 feet high from the ridge, the side nearing the glacier was a sheer wall. I climbed a little way round the ridge, and decided to tackle it rather than turn back ; but if I had known what we were in for I would have decided otherwise. The east face of Aspiring where we began to climb is one of the most magnificent precipices in New Zealand, and it is this precipice that travellers can see from the distance, which looks so formidable. Captain T. E. Donne, in 1905, said he would like to see me scale it, and here I was. It is about 8,500 feet of a precipice from the summit of Aspiring to the base on the east side, and we were about 2,500 feet below the summit, so we were climbing with 6,000 feet underneath us. After the first 150 to 200 feet, it became a case of finding any place where we could get up the precipice, and not a case of picking the route. I tried to find a place easier than the overhanging ledge I was just attacking, but the only place I could find was a smooth slab wall, inclined to be a very open chimney up which it was necessary to wriggle without handholds or footholds, by the aid of friction with the knees on the wall facing me while lying on the left side.

The only handhold was on a piece of overhanging rock jutting out from a kind of a shelf. It was a doubtful handhold, but the only one, and I had to take the risk. It was impossible to test it before taking the grip. I found myself on a very firm ledge, and was able to pull the next man up, and when he was on the ridge we pulled the others up. We were in the middle of all kinds of difficulties, and I pointed out that we would have to climb quickly, and be content to be benighted in order to get to the summit. I made the pace as quick as possible, but the very long day was beginning to tell on one or two members of the party, while Hodgkinson was not feeling very well. It would be easy to get into serious difficulties on the Aspiring precipices, as the strata dip from north to south in a series of narrow ledges, which are steep smooth rock, and in some places rotten, with stones resting on the ledge where one least expects them. After many interesting incidents we came to a kind of shoulder on the top of the serrated ridge, and took a photo of the final summit ice-slope and the east precipices. We continued up the ridge on the rock, evading the ice-slope and step-cutting as long as possible. To do this it was necessary to walk as near the east precipices as we could get, but when we were about 300 feet from the summit we crossed over to the west side and walked along the slabs on the edge of the west face precipices up to the last 200 feet. Then we had to get on to the ice. I found that as soon as I cut a step it seemed to fill up, the ice being beady and loose, and it was deemed wise to cut over to the east face, to where the



SHOULDER OF MOUNT ASPIRING AND SUMMIT.



MOUNT ASPIRING FROM CASCADE CAMP.

snow seemed to have formed small avalanches. This gave better footing, although we had to take the risk of avalanches, but still it was better than sliding off the mountain, which seemed to be a very likely result if we kept on the beady ice. This brought us out on the summit from an easterly direction, and enabled us to evade the narrow crest of the ridge of the final summit slope. The wind began to trouble us as we neared the summit, and we could see that we were in for a storm. As I advanced over to the coxcomb side to let the next man get on to the final tip I felt the full blast of the threatening storm. I asked the party if they were satisfied at reaching the summit, and when they expressed themselves well satisfied I gave the word to descend. The clouds and oncoming storm prevented any view or photographs, and there was very little prospect of its clearing even if we paused on the summit. As we were anxious to get down as low as possible before nightfall, we hurried off the summit and down the loose snow. Going down was as risky a piece of work as one could imagine. I constantly called the attention of the party to the damaged steps, which had turned into a gutter, down which we had to slide, trusting to luck that the sides of the gutter would not break and let us slide down the mountain side. I could not anchor my ice-axe in the snow, and all I could do was to keep myself from sliding on to the next man. It did not last long, and we soon scrambled down the ridge on to the shoulder, and the rain began, with a strong wind, so I told the party to consider themselves benighted, and not to think of trying

to descend any farther. While Robertson and Hodgkinson looked round for a place in the rocks, Murrell and I climbed down some little distance to try and find a more suitable place, but without success. We joined our efforts to pile stones round a crack in the rocks and make the place as suitable as possible. We had the sky for a roof, but it was possible for one man to get under a ledge of rock, and this special place was given to Hodgkinson. We kept the lanterns lit as long as we had any candles, and we were feeling full of the success of climbing Aspiring, and would have happily made the best of a bad job; but the two men who were left to bring the food in their rucksacks had only brought just enough for a meal, and that was used for lunch at twelve o'clock noon, and about 10 p.m. we were feeling in the need of food. The loud shivering and chattering of teeth by each member of the party was discomfoting, so I started a mountain song in which I made them all join and repeat from time to time during the night. It was a question whether the party could stand the cold. The hours wore on, and Robertson said he could see the first signs of dawn; but it was raining all the night, and we were practically in the clouds, so it would not get light until the clouds lifted, and as there seemed to be no signs of that, we decided to make a start. I took the lead to pick out the route, and climbed on to the first finger-shaped pinnacle of rock and over the highest part of the ridge, despite the effort of the howling gale to blow me off. It was necessary to crawl along slowly in one narrow, loose part; but before going far we were able to climb on the

west side of the ridge and found a hole between the ice and the rock, where we sheltered from the wind and rain. While resting we discussed the chance of getting across the avalanche track because we had heard a very large avalanche fall during the night. We decided to climb near the mountain, as we should be taking less risk if a sérac fell because we would only have perhaps two or three blocks of ice to get out of the way of; but if we climbed across the avalanche two miles away from the mountain, the ice would have time to break into thousands of pieces, and each piece would have the chance of hitting us. Climbing along the ridge again, we were going well when Hodgkinson's cap blew off into the mist and down the west face. I located it and followed, and while picking it up had a look as far as the rain and the mist would allow at the kind of climbing necessary. We could not see far enough to warrant us taking that route, so we ascended and climbed along the ridge again; but we had gone along the west side of the ridge as far as we could, and a rock wall, quite smooth, made us take the weather side of the mountain. The water was running down from the narrow ledges and dropping down the precipice, so we had a shower bath; but the wet made it easier to stick to the rocks with our wet clothes, which made it easier to get over the more difficult places. At last we came to the overhanging ledge that had troubled us in the ascent, and we proved to our own satisfaction that it was the only way. I climbed down and over the ledge and closed up to the rocks underneath, making fast the rope to a piece of rock, with my

face towards the precipice. I felt a jerk on the rope and instinctively clutched it and gave it a tug, thinking I was just helping Robertson to get a footing; but after we got off the precipices Murrell informed me that Robertson had slipped over the ledge, and was in the act of over-balancing himself on the precipice when I gave the tug. Murrell said he had a good grip of the rope and it was taut, but that I had enabled Robertson to clutch the rocks at the right time and save his weight falling on the rope. We climbed more to the huge thumb of rock after this than we did going up, and found the rock-climbing much more difficult, but there were no loose stones and the rock was good. One or two awkward bits of cracks and overhanging ledges gave us trouble, but the wind was blowing rain at us, and enabled us to cling to almost any scanty slope. It was with a sigh of relief that we recognized the tins where we had lunch the previous day, and we were not long in seeking shelter from the rain and wind. The first climb and probably the last of Mount Aspiring east precipices was finished. We endeavoured to follow our tracks on the snow alongside the ridge, but when we came to where the steep snow-slopes had been during the ascent, there was nothing but a wide crack between the rocks at the base of the ridge and the glacier which was like an enormous bergschrund. This made it difficult to get on our tracks, and it took us a long way out of our course to find a way across it. Large crevasses had opened up in all directions, and we could only see them when we were about to walk into them;

so it was a case of trying to get along in any direction to get away from the ridge and on to the glacier. I went out on to the glacier, and then up in the direction my bump of locality guided me; and although we did not get up near enough to climb under the *séraes* we found the steps and abandoned the idea of getting nearer the mountain, deciding to take the risk of the wide part of the avalanche. I was feeling rather confident of finding the way after the practice on this mountain—up to the bivouac in a dense fog, and off the mountain from a height of 8,000 feet, and regaining our steps; so predicted that I would bring the party out across the avalanche on to our steps at the other side. Although we had left no ice or snow marks on these huge blocks of ice, I took a zigzag course, and floundered over the loosely-poised blocks of ice, evading those that seemed loosely filling a crevasse; but my purposely confident encouraging prediction came out right, and we actually landed on the steps where they entered the avalanche. During the crossing we thought we heard a crack, as though another ice-fall was about to take place, but as we did not see any blocks of ice flying about, or hear any other report, we continued to trust to luck. I have crossed many tracks of avalanches before, but only a few yards wide—not a mile across like this. The mist lifted just long enough to let us take our bearings, and it made us thankful we had missed a puzzle ground of crevasses, which we would not have had the slightest chance of getting out of. We paused by a bluff of rock, feeling the climb was nearly over, as we had passed nearly

all the crevasses. Continuing our way, we ran down into the basin of the glacier and a little way up the other side, feeling delighted to be out of trouble. The mist soon surrounded us again, and we had to climb carefully along to get on to the top of a snow-slope, which we tackled with some care, as we were not certain what effect the continuous rain would have on the slope and the snow bridge. We found the snow bridge and the sérac connecting the slope with the snow bridge in very good condition, and climbing with fair speed we were soon down on the steep part, and were pleased to find that the steps were, if anything, better than when we climbed up. We made all haste off the slope and down to the bivouac, where we boiled soup and packed the wet kit, and reached the Head camp by 3 p.m. Owing to the heavy rain, we lit the fire at the tent door, and dried the things, instead of letting the fire out, in which case we would have been frozen, there being only one blanket between us, and the dampness made it seem colder than it really was. After 3 a.m. Murrell continued to look after the fire and dry the things. We had been without sleep for seventy hours, having been forty-one hours from this camp on the mountain. The same afternoon we picked our way through bush in heavy weather, with swags of over 40 lb., and had quite a lively time; and we found the river very much in flood, making it necessary to rope and jump one or two awkward boulders. I jumped one, but the swag made me sway too much forward and jerked the rope, with the result that I was pulled back, and to save myself falling into

the main current I let one leg fall into a hole between two boulders and just managed to save being sucked into the hole.

This was a fitting finish to the wettest mountain climb I have ever been engaged in. We were wet nearly all the time, and half-way down to the main camp we had to rope again and balance ourselves on a slender tree by the aid of a pole on the bottom, in order to first cross on to a large boulder into the middle, and afterwards pull the tree on to the stone and push it across the other part of the stream and repeat the Blondin business. Once across this we had no streams of consequence to cross. Further climbing was out of the question, and as the food was nearly gone I left camp and made for MacPherson's with the intention of going up the east branch of the Matukituki, which I did, and climbed a bush-covered peak beyond the camp called Disappointment Camp (so called by Captain Head, owing to the last month's attempt on the east side beginning and ending at the camp), the party being unable to do anything for continuous bad weather.

Besides climbing this peak by a track that had been blazed by Captain Head's party, I also waded the stream to get photographs, but was not very successful, although I took one or two of the east side of Aspiring. The east side will be the side to climb to get on to the same serrated ridge and precipice that we climbed, but it will need some very good climbing. The west branch climb of Aspiring will give any well-equipped party as much adventure as they desire, and as much new ground as they can hope to cover in

many trips. There are many first-class virgin peaks clothed near their summits with ice-slopes and glaciers, which will make them formidable climbs; while the river difficulty in the valley will always keep a party interested as to whether they will get out of the valley when they want to leave, or have to stay a week or two to wait for the rivers to go down. If the road was made better it would not be necessary to cross so many times a river which is full of quicksands and waterholes.

The district should be developed, as it is one of the most beautiful mountain districts in New Zealand. Since our climb Messrs. H. E. Wright, Dr. Inglis, J. R. Murrell and H. E. Hodgkinson, made an attempt on Mount Aspiring, but were unable to reach the summit of the west face.

CHAPTER III

SEASON 1914

THE MOUNT COOK TRAGEDY

Last seen of party—Amateurs attempt Mount Cook—Bivouac meeting Kain and Frind—Relief party—Searching for party on avalanches—Carry Guide's body down—Inquest—Cause of avalanche—Climbing Mount Isabel, first ascent—Climbing Mount Hopkins, first ascent—Climbing third peak Mount Cook—New route.

THE following account of events connected with the alpine tragedy on the Mount Cook Range contains a number of details not given in other accounts of the lamentable tragedy.

On February 21st I left Fairlie by motor car for the Hermitage, Mount Cook. The late Lieutenant J. R. Denniston was a fellow-passenger, going to try and overtake Mr. S. L. King's party in an attempt on Mount Cook, but he found out on the way that he had very little chance of overtaking them unless bad weather had delayed them at the bivouac. I therefore arranged to go with Mr. Denniston to the Mount Cook Bivouac, and if we overtook Mr. King's party he could join that party, and I would take Guide J. Richmond or climb the mountain myself, but if we did not overtake them Denniston and I would climb Mount Cook together.

We learned that two separate parties had left about the same time to traverse Mount Cook by

directly opposite routes. Mr. King, with Guides Darby Thomson and J. Richmond, intended to traverse Mount Cook by the Linda Glacier up over the highest summit and down the Hooker side, and Mr. Frind, with Guides Conrad Kain and W. Brass, intended taking the Hooker side and up over the highest summit and descending by the Linda Glacier. Both parties were to meet on the summit of Mount Cook, and then take each other's steps down, and in that way help each other.

The late Lieutenant J. R. Denniston and I left the Hermitage two hours after the coach arrived on the 21st, and sleeping at the Ball Hut, went on the following morning to the bivouac, which we reached at 11.15 a.m. on February 22nd.

I saw Mr. King's party many times between 11 a.m. and 12 going up the final slopes leading to the summit of Mount Cook, and returned to our bivouac for lunch. Soon after 12.30 we left the bivouac to kick steps over the Glacier Dome, ready for the midnight journey, but did not again see Mr. King's party on Mount Cook. We rested until 1.30 a.m. on February 23rd, and were making ready to start for Mount Cook, when Mr. Frind with Guides Conrad Kain and W. Brass arrived. They asked if Mr. King's party had arrived, and when we answered in the negative, they said that they had traced Mr. King's steps from the summit, which they (Mr. Frind's party) only reached at 5.15 p.m., down to an avalanche at the head of the Linda Glacier, but that they could not pick them up after that.

I suggested that perhaps Mr. King's party had

fallen into a crevasse, and that it would be well to go and look for them.

Mr. Frind said there had been some talk about a return being made by another route which would take them down to the Ball Hut without coming back to the bivouac.

Denniston and I started to climb Mount Cook at 2.30 a.m., but were delayed by strong wind blowing out the light of our lantern on the dome, and it was not until 5 a.m. that we reached the Silberhorn corner.

We had followed Mr. Frind's steps most of the way, and soon after took Mr. King's party's steps upwards, which led over the ice-breaks and across a huge avalanche.

I was leading about 8.45 a.m. half-way up the avalanche ice opposite the last blocks of ice which are the natural surface of the glacier, when I saw an enormous ice avalanche break away from under the summit of Mount Cook below the summit rocks.

As it seemed to be making for our direction, I shouted to Denniston to run quickly on to the smooth ice-blocks, which seemed to be the only place for protection.

We had not gone 15 yards when the avalanche shot past and surrounded the block we were on, and dust from the grinding of the ice-blocks enveloped us. It was a lucky escape. We could not see one another for a few minutes for the damp dust. We stood and afterwards sat down to take some refreshment until the mountain was quiet again. We afterwards saw that this avalanche had an important bearing on the finding of Guide

Richmond's body. The avalanche had shot past us between ourselves and the low buttresses of Mount Cook's rock-ridge, behind the huge rock face on the right of the Tasman Glacier side of Mount Cook, and on about the level of the lower part of it, a small portion being stopped by the uptilted block of the glacier on to which we ran. We proceeded over avalanche ice, and after sheltering behind some of its largest blocks from the severe wind regained the natural surface of the glacier, where the slopes lead to the final traverse on to the rocks on the ridge of Mount Cook.

Here the wind would not allow us to walk, and would have blown us off if we had reached the ridge; so we waited in a groove in the slope to enable the wind to lift, but it became quite a gale, and at 9.40 we decided to give it twenty minutes to improve.

The weather became hopeless, and at about 10 a.m. we commenced the downward journey, crossing the avalanche ice to the snow-slopes on our left, and came down on to the steps of Mr. Frind's party, which we followed over questionable ground, in order to evade the avalanches and the risk of being blown into a crevasse by the strong wind which had been blowing for about six hours, at times making us stop in a crouching position on awkward places for quite long spells.

We studied both parties' steps, and became more anxious about Mr. King's party, but the hope that they had done as Mr. Frind intimated (crossed to the Ball Hut without going to the bivouac) seemed to pacify our feelings. We descended to the lower Linda slopes just above

the plateau and looked for Mr. King's steps in the direction they would take to return to Ball Hut avoiding the bivouac, but could see no trace of them. Even then I was very reluctant to accept the belief that the party had perished, and persuaded myself as far as possible that some mistake had been made by Mr. Frind's party, who were travelling by candle light; there had been so many footmarks that we tried to persuade ourselves the party might still be down the other side of the mountain.

We were again delayed by a severe storm of drift-snow on the Glacier Dome summit; feeling fortunate in getting off the Glacier Dome, we reached the bivouac, and later the Ball Hut, the same evening.

It was then we became convinced the party had been lost, as no entry had been made in the book kept at the hut for ascents to be recorded, and no sign of them could be seen. We left the Ball Hut for the Hermitage at 8.30 a.m. on February 24th, but met Guides Peter Graham, Conrad Kain, W. Brass and F. Milne (Hermitage Guides).

After a brief consultation, Denniston and I joined the search party, and went on to the Ball Hut, rested awhile and had lunch, then climbed to the Haast Bivouac in the afternoon.

Peter Graham and Conrad Kain kicked steps over Glacier Dome, ready for the early morning climb, and we retired to sleep about sundown.

At 5 a.m. our party left the bivouac for the scene of the avalanches and travelled very quickly. All six men were unroped, and remained so the whole of the day, to give each man his chance to

escape any likely avalanches. We reached the Silberhorn corner at 6.30, and some distance up, near the end of a high avalanche, we stopped to examine steps, thence spread out across the whole of the avalanche ice and searched every crack and possible space likely to contain our missing mountaineers.

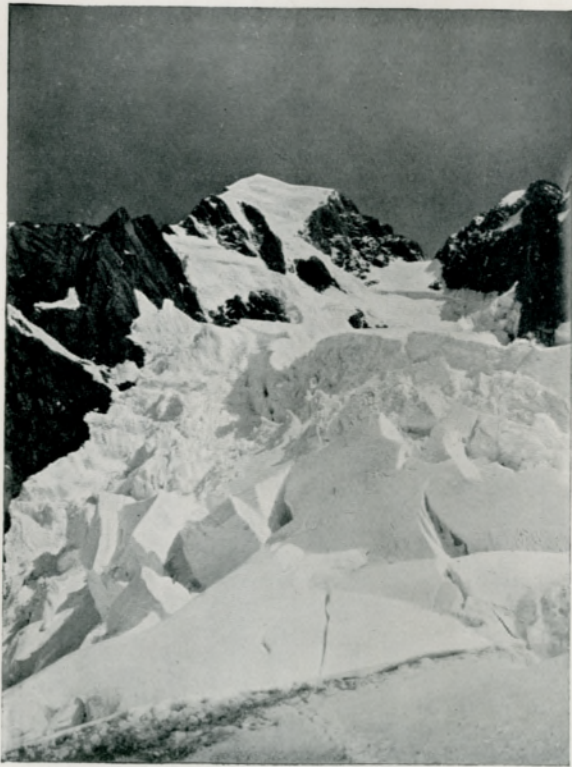
We sat on the ice for refreshments and a consultation, after which we climbed over the remaining blocks of avalanche ice, and Guide Conrad Kain explained where they had traced the steps to. It became a conviction in all minds that the party were under the avalanche. This was at 10.15 a.m.

We then spread ourselves across the actual avalanche that we calculated had buried the party, but there seemed little hope of seeing anything owing to the enormous quantity of ice. Just as we were nearing the bottom of the avalanche, and quite three-quarters of a mile from where we traced their footsteps, and while we were each within about 20 to 30 yards off one another, Guide Peter Graham said, "There's one of them, I can see his feet," and as Graham and I neared the spot Graham said, "It's Jock Richmond."

We were soon on the spot, and could recognize Guide J. Richmond.

I give my own opinion of how the accident happened, with all due deference to other members of the search party, who very probably all held their own views.

The party were not sitting down for refreshments, which is proved by the rucksack being tied, with a crushed tin of pineapple and two drinking-cups



BROKEN LINDA GLACIER.



MOUNT COOK AND HEAD OF LINDA GLACIER.

inside. The avalanche ice had dropped quite 1,000 feet on to the steep slopes below the divide north of Mount Dampier. It did not drop on to the body of Guide Richmond, but having dropped on the steep snow-slopes above it, would sink into the snow 4 or 5 feet and push the snow before it, and this caused a snow avalanche, big enough to carry Mr. King's party to their destruction.

The smaller blocks of ice would bound over the snow and render them unconscious or kill them almost instantaneously while they were on the avalanche snow. When the avalanche snow found resistance at the bottom of the glacier near Mount Cook buttress, the force would so compress the snow as to turn it almost into ice, and so crush them in a mould of hard snow nearly as hard as ice. There had been about 3 feet of hard snow over the whole of the body when the avalanche of Mount Cook (which Denniston and I saw the previous day) had sent large blocks over the body and cut away the hard snow from the hips downwards, uncovering the body and breaking the right leg.

This avalanche had made two crevasses, one about 3 feet across, which exposed the head, and one about 2 feet across, which exposed the feet; while a block of ice about 2 tons weight was poised on the upper lip of the crevasse at the head.

The head had left a mould in the hard snow in the wall of the top crevasse, and this mould was the exact cast of Richmond's features. I noticed particularly when helping to dig the body out with the ice-axe that the coat and rucksack, also the clothes on the body, had been compressed

into the hard snow, now almost ice. The Guide's goggles were not even cracked, although he had been wearing them at the time of the accident; but the tin of pineapple was crushed to nearly the shape of a brick. His watch had stopped at 4.50, but was not badly crushed.

The Guide was on his back, with his face clear of snow, looking up to heaven. His left arm was extended above by the side of his head across the crevasse. His right arm was by his side, the head pointed towards the summit of Mount Cook, and the feet down the Linda Glacier. The rope had been wound twice round the shoulder, as is usual when desiring to take in the rope to travel fast. The end of the rope led into the wall of the crevasse at his head, and was broken evidently by sharp ice-blocks. The rope was not attached to anything, as energetic digging proved. The party had evidently been travelling fast when they were overtaken by the avalanche. The position of the body can be better described by photographs, but it was about 9,000 feet above sea-level, just above the huge ice-blocks of the Linda Glacier, into which more than one of our party believe the other bodies have been shot. If so, they lie in the ice at a greath depth amongst enormous crevasses and huge séracs, an ideal grave for an alpine climber.

The 3 or 4 feet of hard snow took some considerable time to cut away off the Guide's body, and Conrad Kain, having had previous experience, was an indispensable man for this work, as he was all through the whole tragic proceedings. Giving him a hand to pack the body, which was done

with the greatest care and respect, we made it secure enough to be taken down, then the Lord's Prayer was repeated in unison. We sat down for a little lunch, and afterwards came one of the most difficult journeys possible. Guide W. Brass suggested carrying the body over the avalanche ice, and did his share, then Guides Peter Graham and Conrad Kain took their turn, and when we reached the natural blocks of the Linda Glacier, we dragged the body over the snowbridges, crevasses, and up over séracs, down ice-walls, across avalanche ice. The unroped party of six made light of the difficulties or risks of avalanches. The hardest part of this stage of the journey was up over the Glacier Dome. We had to rise about 1,000 feet from the plateau, and a snowstorm made us keep fresh. The body was left for the night buried in the last snow of the Glacier Dome. The following day additional assistance was rendered by Messrs. Frind, Franz Malcher, H. Bennet, and Guides Cowling and Milne to bring the body to the Hermitage, where the Coroner's inquest was held, and the remains were then taken on to Fairlie.

It is necessary for the reader to have seen the scene of the tragedy to realize what a difficult task was undertaken by the search party in order that the last rites might be paid to a brave and worthy Guide.

When the accident happened the party would be in the happiest possible frame of mind at having conquered Mount Cook, and the avalanche would be so sudden as to cause unconsciousness, if not death, instantaneously.

The Linda Glacier over which the rescue party

searched is about one mile long and half a mile wide, several enormous avalanches having shot down from time to time within the last few days of very hot weather. The Mount Cook tragedy was no mere chance, because the party would be travelling from twenty to thirty minutes in the danger line.

The enormous face of ice that fell out of the precipice about 1,000 feet above scraped the deep surface snow off the glacier, which carried them quite a long distance, until it packed them in its terrific pressure up against the wall of rock behind the east face rock-ridge of Mount Cook. It covered a very wide area, probably over half a mile long and a quarter of a mile broad.

The Frind and King parties arranged to meet on the summit of Mount Cook, and descend in each other's steps, therefore the King's party should have met Frind's party on the summit of Mount Cook about 1 p.m., and Mr. King and party should have been down the Hooker side.

Mr. King's party carried out their part of the arrangement all right, because, although they had the longest route to travel up the Linda Glacier via Green's route, I saw Darby Thomson leading the party on to the summit at about twelve noon. I could tell it was Darby by his being with two taller men, Mr. King and J. Richmond. This party were compelled to wait on the summit of Mount Cook for Frind's party much longer than was safe, judging by J. Richmond's watch, which I took out of his leather case on his belt—the glass was broken, and it had stopped at 4.50 p.m. This, together with the place where the

party's steps were traced to, would allow them to have left the summit about 2.30 p.m., and they would need to leave about 1.30 p.m. to have any chance of getting back to the bivouac on the Haast Ridge before dark. Mr. King, being a member of the English Alpine Club, would know as well as his Guide Darby that steep soft snow-slopes, as a rule, are dangerous in late afternoon; but the snow-slope they were crossing when they were overwhelmed was not steep enough to avalanche.

Blocks of ice fall at any time in the afternoon up the head of the glacier, because the precipices with ice on face the east and north-east, therefore lose the sun very early.

The water which has been melting and fills up the water-tight crevasse on the precipitous ice gives the final bit of pressure and releases the block of ice as it freezes.

In this case, however, it was one of the rare very big ice-falls. The Otto Frind party did not reach the summit until 5.15 p.m. They only started from the Hooker Bivouac at 6.15 a.m., about three hours later than is usual, and they met with ice on the rocks. If they had been on the summit half an hour earlier they would have been almost sure to hear or see the avalanche that buried the King party, because it was not more than 2,000 feet below the summit, and about half a mile away. The Frind party did not see or hear anything of the avalanche in motion. The Frind party did well to find their way down the Linda Glacier in its very badly broken state in the dark, with only an alpine lantern, through all the avalanche ice. In order that the relatives and

friends of the missing men may have a correct legal version of the fatal tragedy, as one of the two witnesses examined, I feel it my duty to publish the full details of the Coroner's inquest, more especially as Mr. S. L. King, A.C., was out from home alone.

INQUEST HELD ON JOHN RICHMOND,

February 28, 1914.

Peter Graham, Chief Guide, states that Guides Thomson and Richmond and Mr. S. King left the old Hermitage about two o'clock on Friday, February 20, 1914. They left with the intention of climbing Mount Cook by the Linda route. On Monday the 23rd I was at the Hooker Hut, with Mr. B. M. Wilson, General Manager Tourist Department, and at 12.30 a.m. on the 24th Frank Milne and Alfred Cowling brought news to the Hooker Hut that Mr. Frind's party had returned, after making the traverse of Mount Cook with the news that they had reached the summit of Mount Cook at 5.15 p.m. on Sunday the 22nd instant, stating that they found the steps of Mr. King's party and followed their tracks down on the Linda Glacier, where they were covered by a huge avalanche off the divide north of Mount Dampier. Mr. King's party had followed the usual route. I returned to the Hermitage immediately on receiving the advice that Mr. King's party were missing and arranged a search party, and left for the scene of the fatality about 5 a.m. on the 24th, and proceeded to the bivouac, meeting Mr. Turner

this side of the Ball Hut, and he returned with us to assist in the search. On the morning of the 25th we proceeded up to the glacier and examined the steps, which showed conclusively that the party had been overwhelmed by a recent avalanche ; the locality was closely searched, and I discovered the body of Guide Jock Richmond buried in the avalanche. We at once removed the body, which had a portion of the rope attached which the parties used in ascending and descending high climbs. Every search was made for Mr. King and Guide Thomson without result. We then removed the body nearer the Haast Bivouac, when the body was covered with snow. The body was very much crushed, legs and arms being broken and head badly crushed, but still recognizable. The body was removed to the Hermitage without delay, arriving there on Saturday, February 28, 1914. The avalanche had apparently dropped 1,000 feet before overwhelming the party on the route that they had evidently taken, and the body of Guide Richmond had been carried about a quarter of a mile. In ordinary conditions the spot is considered moderately safe. The avalanche would be about three-quarters of a mile long and a quarter of a mile wide. It was always considered that Guide Richmond was a very capable and trustworthy Guide. His watch was broken, and had stopped at 4.50 p.m., which would be about the time the party would be on that particular spot when the avalanche came down.

Samuel Turner, merchant, Wellington, states :—
J. R. Denniston and myself left the Hermitage

at 7 p.m. on February 21, 1914, to climb Mount Cook, with the object of overtaking Mr. S. King and Guides Thomson and Richmond. They had evidently left the Haast Bivouac, because I saw the party several times between eleven and twelve o'clock on the morning of the 22nd climbing within one hour of the summit of Mount Cook. Mr. Denniston and myself climbed the head of the Linda Glacier, but saw no trace of the party. I was returning to the Hermitage and met a party of four who were coming up to look for Mr. King and Guides Thomson and Richmond. On comparing notes we decided to return to search for the missing party. I was with the party when the body was found, and from every appearance an avalanche had caused the death of Guide Richmond. The body was discovered by Guide Peter Graham, and I helped to remove the body to the Hermitage. I took the watch out of J. Richmond's leather watch pocket, and it was stopped at 4.50.

Owing to being the last person to see the late Mr. S. L. King, Darby Thomson and J. Richmond, as they were going on to the summit of Mount Cook, I was asked for and gave the above evidence at the Coroner's inquest held at the Hermitage as soon as Jock Richmond's body was brought down on the way to its last resting-place at Fairlie. Jock Richmond's brother could not recognize him, and declined to believe that it was Jock. On my hearing of this, I immediately saw the late Guide's brother and handed him a Christmas card which I had found in Richmond's coat, and the writing was in a lady's hand, "From Ethel to

Jock." This satisfied him and overcame a pitiful situation.

Having lost the best man I have ever met in the mountains, the sterling Guide Darby Thomson, who said he believed I could climb Mount Cook alone, I made up my mind that, despite the Linda Glacier route being the hardest and most dangerous of all the routes up Mount Cook, that all my future attempts to climb Mount Cook alone would be made up that glacier, if the mountain was in anything like condition. I had in my mind that perhaps I might see some trace of the missing party down some of the wide crevasses or fallen-in part of the glacier. Although I kept a sharp look out from time to time, and took off my goggles whenever I saw some black mark or discoloration of the glacier, I have not come across the slightest trace of the missing party.

I have made a study of the glacier's movements during six years, from 1914 to 1919, from which I have tried to form a rough idea of about the date the missing bodies may reappear, and have formed the opinion, after careful thought, that between 1934 and 1939 articles belonging to the missing men, such as rucksacks, ice-axes, the stereoscopic camera carried by Mr. King, caps, etc., will commence to reappear on the moraine of the Hochstetter Glacier, and the bodies, if not buried too deep, will also reappear on this glacier within about two miles of the Ball Hut; but if the bodies are buried very deep, they may be locked deep in the ice, and as the Hochstetter Icefall carries them down, it may not bring them to the surface, in which case they may not come

out for forty to fifty years lower down on the lateral moraine of the Tasman Glacier.

The shortage of winter snow during the last three years on the mountains that enfold the Linda Glacier will cause the ice-flow from that glacier to lose speed owing to the side-pressure of the north and south ice on the plateau. As the years go on this may vary in favour of the direct flow of the Linda Glacier to the Hochstetter Icefall, because there are periods of heavy and light snow seasons.

There is no doubt in my mind but that the missing bodies will be recovered; but probably it will be after most of the climbers of the present day are gone to their eternal rest. I am placing this on record so that my children, and probably other people's children, will keep a good look out about the time stated.

The alpine tragedy cast a gloom over the climbing season, and out of respect for the victims I did not climb for seven days; but on March 7th, in company with P. Graham, we made the first ascent of Mount Isabel, Moorhouse Range, from the Hermitage up the Muller Valley to Kea Point. We ascended the Ngakanoki Glacier to a couloir between Maungama and Mount Eric, ascending Mount Eric and traversing the main divide to the summit of Mount Isabel, descending the same way.

We left the Hermitage at 3 a.m. on March 7th and commenced to climb about 300 feet of rock to the long ledge glacier that slopes upwards from 300 feet above the Muller Glacier. We had a few easy crevasses to cross and a very steep



MOUNT VAMPIRE AND MOUNT BURNS FROM MOUNT ISABEL, SECOND SUMMIT.



MOUNT SEFTON AND MOUNT COOK FROM MOUNT ISABEL, FIRST SUMMIT

couloir sloping up on our right, which we had to negotiate carefully, then turning sharp to the right, we climbed to the lip of a schrund, which made a difficult take-off on to the bottom of the main Moorhouse Range ridge, up which we climbed about 1,000 feet. It was a sharp loose rock-ridge, and every foothold and handhold had to be tested; but after passing Mount Eric, the sharp, slightly uneven ridge gave way to pillars of rock, rising abruptly about 40 to 60 feet from the ridge, very much like the Aiguille de Charmoz ridge, only loose sandstone on this ridge instead of crystallized granite rock. Mount Eric was 8,200 feet above sea-level, or about 4,300 feet above the Muller Glacier. From this peak to Mount Isabel there was a rise of 318 feet, and six pillars of rock had to be climbed. No. 1 for the take off had no footholds, only very small handholds. No. 2 was a little easier. No. 3 was about 40 feet, a straight pillar of rock with little notches in the rock for hand and footholds. No. 4 was similar to No. 3. No. 5 was the highest climb from the ridge about 60 feet, knife-like ridge, rotten rock, pieces of rock going away from under the feet, and it was necessary to make it a stomach traverse on the top, as the big blocks were not safe, and there was a very sharp take-off. After this we had an easy traverse across a snow couloir on the Westland side, on the top of smooth slabs, then a hand traverse across a sharp ridge to get on to the final peak, which required very great care.

Mount Isabel is one of the most interesting climbs I have ever had, adventurous owing to falling stones, shale on the knife-like ridge; many

small pieces of rock and two large pieces went from under my feet down several thousand feet, and made me remark to Peter Graham that it was one of the times when one got the benefit of climbing with three pieces hooked on to the rock before moving the necessary hand or foot. We took two hours forty-five minutes to get to the beginning of the ledge glacier under Maungama. Then we had breakfast at the head of this glacier at 8.30, after which we had about four hours of all kinds of difficult rock-climbing, and reached the summit at 12.45, stayed on the summit and took photographs for one and a quarter hours, left at 2 p.m., and arrived on ice under Maungama 5.45 p.m., boiled the billy, and left for Hermitage 6.20 p.m., and arrived at 7.55 p.m.

We had travelled quickly, and had about two and a half hours' rest out of the seventeen hours fifty-five minutes from the Hermitage and back again. This climb has not since been repeated up to the end of 1921.

Starting from the Hermitage on March 9, 1914, with Peter Graham and F. Milne, we made the first ascent of Mount Hopkins (8,790 feet), the highest in the Ritter Range, or about 6,500 feet above the valley. We camped at the head of the Muller Glacier the same evening. The next day we crossed Barron's saddle and descended into the Dobson Valley, traversing round under the hour-glass glacier and to the eastern rock precipices of Mount Hopkins, and bivouacking at an altitude of 5,000 feet. We ascended the rock face to the divide, and then followed the main south arête to the summit, descending the same way.

Mount Hopkins is one of the biggest mountain climbs ever undertaken from the Hermitage, because it is one and a half days very solid going to the second bivouac from which we made our ascent; and only one party of tourists had been down into the head of the Hopkins Valley before our trip, therefore we had to work out our problem of where to camp and how to tackle it while we were on the move, on the second day while crossing from the head of the Dobson Valley for about three or four miles of a semicircle round the foot of Mount Hopkins. The bivouac seemed to come by instinct and consultation.

We saw three huge stags on the slopes of Mount Hopkins from the opposite side of the valley, and we descended the shaly slopes of the stream, crossed it and climbed up to where we saw them; as we put our heads over the ridge from a distance of about 20 yards, they stood up and glared at us for a few seconds. One of our party gave a shrill whistle, which started them on their magnificent gallop down through the long snow-grass and scrub, up and down rock undulations, with horns thrown back, making us envious of their dash and speed in such difficult country. One was a 14-pointer.

The Hour-glass Glacier falls over precipices about 1,000 feet on to the base of the mountain below, and forms the Richardson Glacier, down along the side of which we had to descend, interested all the time in the falling avalanches.

The stunted scrub and bush-clothed valley, with long wild grass, made a very interesting picture, with Mount Hopkins' ice-face on our right,

not half a mile away from this grass-covered slope. As we descended the slopes on the Mount Hopkins side of the valley, we were attracted by a stag on the top of an isolated spur which we thought of making our bivouac, but as we approached it, the country towards the rocky ridge on our right appeared more suitable; but we had to climb to a height sufficiently high for a bivouac 5,000 feet from which we could reach the summit next day. As we threw down our heavy swags to pitch our alpine tent we had finished a very long day.

F. Milne was making his first important climb, he was young and willing, and was carrying over 50 lb., and he was feeling off colour; however, after a good sleep, we climbed up about 1,500 feet of rock face on to a snowfield, crossing over a saddle connecting the Hopkins with the Dobson Valley. Continuing along the ridge, we gained the ice-slopes of the Mount Hopkins Glacier, and crossed over broken séracs on to a very steep rock, climbing about 250 feet of rock on to two shoulders. We then came to an arête alongside about 1,200 feet of steep snow on to the edge of the precipice. This snow was broken by the edge of the precipice being serrated, and the wind had caused a groove between the very edge of the precipice and the hard snow-slopes. This groove had a southerly aspect protected from the sun (our southerly aspect is pointing away from the sun); this was good fortune. The snow was in good condition, enabling us to cut steps and climb up between the edge of the precipice and the snow-slope, with occasional handholds on

the out-jutting pieces of rock. The rock wall beneath made us very careful. It was a sheer-down for about 2,000 feet when we started, but we climbed up very steep slopes and rock spurs on the edge of this sheer-down for about another 3,000 feet. We had a magnificent precipice, under us of about 5,000 feet when we took off on to the ridge to the right, at the top of the precipice and climbed the last 300 feet of very loose rock overhanging in places, on which one nearly set the rocks on the move by the bump of the head which occurred occasionally. The actual summit was a big square block of rock about 8 feet by 8 feet and 6 feet thick, just balanced on the top of the face, which drops 2,000 feet down on to the ice facing the east. The west slopes were great steep slabs dipping towards a couloir which divides Mount Hopkins from a peak, whose slabs dip down into the dense bush on the Lonsborough Valley slopes of this mountain. The Hopkins Valley was to the south of this precipice, and a deep chasm divided Mount McKerrow from Mount Hopkins. From these two mountains, together with Mount Foster and Mount Spence, the Hopkins and Dobson rivers receive much of the water, while the head of the Hopkins, Dobson and Landsborough valleys are shut off. It might be called the junction of the valleys, which, including the Muller Glacier, are only separated by sharp ridges, which are the edges of a steep, but peculiar slab formation of hard sandstone with hardly a handhold or crack to climb up. The view of Mount Sefton and Mount Cook seen from the summit of Mount Hopkins is not very good, because the

Moorhouse Range, with its many jagged peaks, cuts off all but about 2,500 feet of Mount Cook, but the summits of all the high mountains in the Hermitage district could be seen and recognized. Mount Aspiring could be seen in the south-west, also the numerous unclimbed peaks along the west coast and on each side of the Hopkins Valley.

We hurried down, after taking a round of photographs, because we wished to cover as much as possible of the long journey back to the Hermitage before nightfall. We managed to make good pace on most of the descent, but the steps in the ice along the edge of the precipice were delicate work, and patience was necessary to preserve safety.

Once on the ridge dividing the valleys we found no difficulty in climbing down the rock face to our bivouac, where we collected our equipment, and descended with all speed to the valley level, and pitched camp alongside the Dobson stream.

We found plenty of timber, and soon had a big camp fire and a pleasant evening, which made a splendid finish to a great climb, flavoured with exploration, as nobody had climbed any of the peaks anywhere near Mount Hopkins, and this being such a magnificent mountain attracted our attention.

All night the stags roared in the bush close to our camp, as though they disputed our right to trespass down the head of this remote valley, which up to that time no deer-stalker had been known to wander.

The following day, March 12th, we made our way slowly up the Dobson Valley, during which journey I picked up a beetle. On my presenting



S. TURNER ON SUMMIT OF MOUNT BURNS.



MOUNT HOPKINS.

MOUNT MCKERROW.

MOUNT BURNS.

it to the Wellington Museum they said they had only one of its kind before this.

The valley was full of interest, and after a bathe in the stream and a visit into a huge ice cave, we reluctantly climbed the shaly slopes of Barron's Saddle, and managed to pitch tent early in the evening with the object of climbing Mount Burns the next day (this peak is 8,984 feet) from a bivouac at the head of the Muller Glacier. We intended making the first ascent by the south buttress and south-east face to the main divide, west of Bernard Pass (called after the late Colonel B. Head), and thence by the main north-east arête to the summit.

Bad weather drove us down to the Hermitage, but we returned and made this ascent on the 23rd from the same bivouac, and the same day we made the first ascent of Vampire Peak (8,600 feet), ascending from a couloir east of Bernard Pass, traversing a snow-slope to the north-west arête, which was followed to the summit.

The bivouac we had made on our return from Mount Hopkins was quite good when, on the 22nd of March, Graham and I pitched our Alpine tent for the climb of Mount Burns.

The loose rock on the south buttress of Mount Burns gave us some trouble, and we were glad to take a rest on the summit about noon.

J. Clark and one of his party had been stuck on their way to Bernard Pass on this face we had to climb, and it was very interesting to see how we would get on. With the exception of that item there was nothing interesting in the ascent.

We spent some time on the summit of Mount

Burns, when we made up our minds to also climb Mount Vampire; and as the weather looked threatening, we swarmed up this pinnacle and down again under the hour. It was lucky we did hurry, because on our way down the steep rock buttress we were enveloped in a dense mist, which brought a look of anxiety over Graham's face. Half-way down the rock face the wind dislodged a stone which I caught in one hand just above my head while hanging on to the precipice with the other hand, and as I threw the stone down into the mist, Graham's face turned from pale and serious to a broad, warm smile. The stone was the size of a cricket-ball, and therefore my cricket days held me in good stead on this occasion. One needs to be fairly proficient in all kind of sports and exercises so as to be ready and alert for anything the mountain sends one.

We had to exercise every caution in the sleety mist which had made the face of loose rock just as tricky and difficult as it seemed easy during the ascent. We were glad to get down below the mist, and were not long in collecting our equipment and returning to the Hooker Hut.

Graham returned to the Hermitage the same night, but I stayed at the Hooker Hut, and on the following day, March 24th, went to look at Mount Sealy alone.

A wide schrund cut the mountain off, so that it was not possible for one man alone to get on to the rocks. I then tried the ice-slopes on the right, but big breaks made this route impracticable, so I climbed the peak east of Mount Sealy, with the hope of finding a way up the east face of Mount

Sealy. This climb took too long for me to be able to climb Mount Sealy, so I postponed this solitary climb and returned to the Hermitage in time for dinner.

On March 25th, in company with Peter Graham and Frank Milne, we started for the Hooker Hut, where we spent the evening. On March 26th we left the Hooker Hut at about 5.45 in strong wind and doubtful weather, reaching the Pudding Rock about 8 am. and the bivouac at twelve noon. We had lunch and proceeded to kick steps with the intention of climbing Mount Cook by Earl's route, but owing to the rock avalanches and rotten state of the rock and ice near the first schrund, etc., we held a consultation, and the climb to the third peak of Mount Cook by a new route was suggested instead; with that we kicked steps some way across the Empress Glacier for the following morning.

March 27, 1914, we left the Hooker Bivouac and traversed across the snow-slopes of the Empress Glacier. Just as we were opposite the middle peak I saw an avalanche break away on the steep ice-field, and giving the warning we just managed to run to safety before huge blocks crossed our steps. We gained the north-west arête of the third peak, and while ascending the first 200 or 300 feet, climbing rather fast, Graham moved a fair-sized rock, which Milne evaded by inches by a turn of the head. It was a very lucky escape, so we travelled a little slower and more carefully. We climbed to the top rocks of the west arête, then by the final snow-slopes to the third summit, 11,787 feet, which we reached

at 12.30 p.m. This was a new route. The ice and snow climbing is very much more difficult than the climb of the highest peak from the Hooker side, but the snow and rock conditions were very much better.

This was such a pleasant climb that I surprised Graham and Milne by asking Graham to stand down from the highest fairly large step-cut on the sharp snow-ridge of this third peak's summit. They were still more surprised and amused on my stepping into that top step and balancing my ice-axe on its shaft point on my chin, which had been my habit on most peaks with broader ridges on their summits.

Why should the top of a mountain make any man too careful to move? Freedom on the summits means genuine conquest, but timidity on the summits means that the mountain is the conqueror.

The ridge of Mount Cook, looking from the third and sharpest peak to the highest peak, looks the one and a half miles of serrated ridge that it is; but when on the highest summit of Mount Cook, looking down to the third peak, it looked to be about half the distance. The Tasman face of the third peak of Mount Cook is a sheer drop, which I had a good look down, and it does not seem possible for snow and ice to stay on such steep rocks.

There are two things that enable the snow-slopes in New Zealand to hang steeper than in most Alpine countries: nearness to the sea causes more moisture in the snow, and the sandstone rock splits and allows the snow a better grip.

The faces of both Mount Cook and Mount Sefton from the Tasman Glacier side are exceptionally steep. We took a round of photographs, including the three peaks of Mount Cook, and enjoyed the most perfect panorama with a more extensive view than one could get on the highest summit.

The Timaru bight, and the sea on the West Coast, was the chief view, but a multitude of scenes presented themselves: peaks, pastures, bush, glaciers, and moraine in the foreground; peaks, valleys, and glaciers in the distance; and all the time one tried to force one's will to dominate and take in the distances, to pick up landmarks, to try and recognize the contour of the lowlands, feeling disappointed with one's limited sight and calculation, and again somewhat depressed to know that the sun was beckoning us to the valley below, as the end of March means early sunset in these high enclosed valleys.

We made good progress in the descent. Graham, being the last to cross a deep schrund on the side of the Empress Glacier, broke through and received a jerk from me, which more than pulled him out of danger, as I had not underestimated the rotten state of the snow, and had quickly wound my rope round the head of my ice-axe and had a good grip for the occasion. One cannot take snow and ice schrunds too carefully, because an extra few minutes spent in slow careful crossing can be taken as part of the rest. Of course, if the climber wishes to go at top-speed all the time, and show how clever he is by making light of the schrund or snow bridge, he may get through a good many times, but one day he is

missing. The secret of really fast travelling is to take your time over the difficult parts, and that means there is not the same wear and tear.

We descended to the bivouac by 5.30 p.m., packed up, and made a sprint down the Hooker Glacier, from the Hooker Bivouac to the Hooker rocks in one hour; and we camped on the top of this rock that night, because the darkness and weather conditions were not good enough to continue to the Hooker Hut.

We spent a miserable night, and early next morning we climbed down the Pudding Rock, made for the Hooker Hut, and afterwards the Hermitage the same day.

Sunday, March 29th, I had a well-promised rest, as the most eventful and tragic season had drawn to a close.

CHAPTER IV

SEASON 1915

Ascent of Mount Sealy alone—Mount Montgomery in snowstorm—Mount Montgomery and Mount Spence—Head of Landsborough—Fyfe's Pass—Attempt three peaks of Mount Cook—Weather difficulties—Muller Hut—Fyfe's Pass—Head of Landsborough—Mount McKerrow—Climbing—Summit—Difficulties of exploration—Involuntary dive in the river—Landsborough Pool—Return over Fyfe's Pass.

ON February 21, 1915, I left the Hermitage and arrived at the Muller Hut at 5 p.m., and spent that night and the following two days, being unable to attempt Mount Sealy alone, owing to a storm commencing on the evening of the 21st and developing into a heavy rain and wind storm. As I was alone for about sixty hours, it was a very impressive time, and the wind threatened to blow the hut down the moraine. When I was not doing my own cooking, the great volume of water coming down the mountains in every direction was a very interesting sight, and I was much interested in the entire change of aspect. One had to hold on to something when going outside to prevent being carried away, and the foundation wires of the hut, which had not been long built, were shaken very seriously. I was able to leave for the climb of Mount Sealy alone at 6.40 a.m. on the 24th, and finding the snow in good condition, reached the summit at 10 a.m. in stormy weather. I spent

one and a half hours climbing down the precipices on the east face to get a pair of goggles that had dropped on to a ledge some way down.

I had climbed by the south-west face in considerable wind and cold weather, both cloudy and misty, therefore I did not get any benefit out of this climb, except as training to climb Mount Cook alone, a climb not yet accomplished by one man. One big break on the way up gave me some useful ice-work, but otherwise the climb was tame, with the exception of the recovery of the goggles incident, which was a bit of good rock-climbing. Leaving the summit at about 12.30, I reached the Muller Hut at 3.40. The weather cleared a little on the way down, and I was satisfied with this nine hours' climb because it was snatched out of the middle of very bad weather. Returning next morning to the Hermitage in rain, which did not stop until the following afternoon.

Luckily, on February 26th I managed to secure a Guide at the Hermitage, Conrad Kain, and immediately the rain stopped we set out for the Muller Hut, and spent the night of February 27th there, and started for Mount Montgomery at six o'clock on the morning of February 28th. Climbing the mountain in a snowstorm, and going over the summit, we continued along the ridge to Fyfe's Pass, and descended to the Muller Glacier, and back to the Muller Hut by 7.30 p.m., thus doing the first traverse of Mount Montgomery.

The following morning, March 1st, we left the Muller Hut at 3 a.m. to climb and make the traverse of Mount Spence, 8,200 feet, a fine rock peak never previously climbed. It stands like a

huge steep pyramid on the ridge that divides the Dobson Valley from the slabs that descend to the head of the Landsborough Valley. We had to make our second ascent and traverse of Mount Montgomery, continue on the edge of the slabs, and on up the last steep ridge to the summit. We moved fairly quickly, unroped all the way, and after a brief spell on the summit to build the usual cairn we continued down along the north-west arête to a couloir on the east of the ridge, and down the steep rock face on to the snow-slopes leading down to the base of the slabs at the head of the Landsborough Valley. It was a very interesting climb down to this valley; it had a flavour of exploration about it, as only two parties had been down over Fyfe's Pass into this valley before, and not near these small glaciers and snow-slopes, which we crossed for the first time. It had been solid climbing at times, and as we commenced to climb the smooth slabs between Mount Montgomery and Mount Spence we felt that it was one of the most enterprising days it would be possible to take. It was my first experience of these New Zealand slabs, and a special knack is required, as the slabs are not steep enough to climb comfortably up and too steep to walk up with comfort. We made good progress because time was slipping on, and we were afraid of being benighted. We found our way over the ridge in the failing light, but down the Muller Glacier we were overtaken with the night mist, and arrived back to the hut at 8 p.m. It was a fast, long, hard day's climbing of seventeen hours, with very little rest or food on the way. I decided to go down

the Landsborough Valley again on the first available opportunity.

We left the Muller Hut on March 2nd at 8 a.m., and arrived at the Hermitage at 11 a.m., taking it easy, because we had decided on leaving the Hermitage again the same day for the Hooker Hut. We left accordingly at 4.30 p.m., and arrived at the Hooker Hut at 7 p.m. for an attempt on the three peaks of Mount Cook. Conrad Kain and I agreed that Mount Cook looked in very good condition as seen from Mount Spence, and the traverse of the three peaks is easy if one gets the snow conditions, but one of the most difficult ridges in New Zealand in ice conditions. We slept at the Hooker Hut that night, and left for the Hooker Bivouac 5.30 a.m. March 3rd, arriving at the bivouac at 11 a.m. Steps were kicked by Kain across the Empress Glacier while I attended to the camp, and he returned and announced that everything was looking well for the morrow. Towards night, however, the weather took a sudden change, and by 9 p.m. we had heavy snow falling which kept on throughout the night, as far as I could tell, between spells of sleep and restlessness; during one of the latter we had a look out of the tent between 2 and 4 a.m., in case there was any signs of clearing. We did not rise early on March 4th, and when we did arise we lit the methyated spirit stove and prepared a scanty breakfast. We had nothing to gain by hurrying, as the heavy snowstorm on the top of the Hooker Glacier could not get worse; so shaking about an inch of snow off the tent we folded it, packed our swags, and slowly but carefully searched for a way through the

broken ice, and hurrying past the steep risky slopes of La Perouse, we felt relieved when we reached the centre of the glacier. It is not so bad passing under an avalanche face when one can keep a sharp look out for avalanches, or rock or sérac falls; but in a heavy snowstorm, slowly climbing across crevasses, snow bridges, and broken ice, one would have to be a novice without the knowledge of the risks to be quite comfortable. We took no notice of the time, but just climbed on wet through, down over the Pudding Rock in very slushy wet condition, and rested at the Hooker Hut, and also had a meal. Shortly afterwards we pushed on to the Hermitage. There is no better training in New Zealand than the climb to the 8,000-feet bivouac at the head of the Hooker Glacier. Such is the actual attempt on Mount Cook on the Hooker side which was taken on without more than one or two hours' preparation, chiefly to get equipment and food at the Hermitage. We felt we were compelled to take every advantage of good weather. A successful climb is made when one has the luck to get two and a half days' good weather together from the Hooker side, or two and a half days' good weather from the Tasman side. The distance from the Hermitage to the Hooker Bivouac is quite 20 miles, counting the zigzags, or about 25 miles from the Hermitage to the Haast Ridge Hut on the Tasman side. From the Hooker Bivouac you step out of your bivouac on to the last 4,349 feet of the actual mountain, but this is quite different from the Haast Ridge Hut, where you have Glacier Dome to climb over and a descent to the Grand Plateau

of about 800 feet and an ice-field to cover, making the distance to the foot of the Tasman face, or the foot of the Linda Glacier, to commence Mount Cook proper, about three miles of exposed, and at times difficult, climbing.

It is necessary to take one's chance of the mountain's condition, like we did, unless the Guides keep you well informed as to the conditions; but you do not come in contact with them sufficiently to get the information required. This is just where the Chief Guide has a great advantage in getting to know all the changes of the mountain and the effect a spell of good or bad weather is having on certain important peaks of the mountains to be climbed. In this and many other ways the Chief Guide can get great help from both climbers and Guides when he has got a certain party in his mind to take to the top of Mount Cook. The outside Guide, or the climber, climbing alone, has to rely upon his own observations or stray bits of information unless the Chief Guide is at home, when he is only too willing to give the climber the benefit of what he knows. At the best, however, it is a great game of grasping the right time to set off, and this unsettled state of the weather on the Southern Alps is a source of worry and irritation to ambitious climbers. One often sees long serious faces looking up at the mountain's condition and the weather prospects.

After making this attempt on Mount Cook, my Guide was taken on another climb; and, being left alone, next day, March 5th, I started for a journey of about 30 miles from the Hermitage to the Malte Brun Hut. There were no horses avail-

able, so I went over the Hooker Bridge, round under the foot of Mount Wakefield, down to the large point, and over to the Ball Hut, arriving there at 7.30 p.m., in heavy rain, in four and a half hours. Guide Cowling and a party of ladies were very happy in the hut, and got a great surprise when I walked in. After a little dinner and a change of clothing, I was soon listening to the stories, and it was a pleasant evening, with an invitation to join that party on the following day, as they, too, were going to the Malte Brun Hut. These ladies were from Christchurch. One was a champion golfer, and she walked up the glacier as easily as she could walk round the golf-links. She was an ideal type of climber: good, strong legs, light body, and good balance. There were four ladies and Guide Cowling; they all arrived in five and a half hours. I went ahead and put the billie on. After lunch I kicked steps up the glacier towards the west ridge of Mount Malte Brun preparatory for the climb the following morning, if the conditions proved suitable.

I left the tourists and the hut at 5 a.m., and climbed up the western Malte Brun Ridge until I could see that the rocks were too ice-glazed to be practicable for climbing. After taking photographs, I descended to the hut by twelve o'clock, and rested the afternoon and evening in the hut alone with my thoughts of how the weather plays with one, unless one is of an easy temperament, able to sit down at the Hermitage, enjoy the genial society one meets there, and sit out all the doubtful weather. This, however, is not to my liking, and the Hermitage has seen less of me than any other

climber during the climbing season. One of my reasons is that taking climbs on in doubtful weather, as in the last two attempts, gets one into good training for the good conditions when they do come. On March 8th I left the Malte Brun Hut for the Ball Hut at 5 a.m., took a very leisurely stroll down the glacier alone, and reached the Ball Hut at 11.30 a.m., had lunch, and then walked quietly down to the Hermitage from 1.20 to 6.15, being delayed waiting for a horse on which to cross the River Tasman.

On March 9th I had no Guide, and had to spend the time at the Hermitage waiting for one. On March 16th, having arranged with Conrad Kain and R. Young for a week's expedition to climb some peaks in the Landsborough, I preceded Kain to the Muller Hut in company with Young. We made the pace from the bottom of the Sealy track to the Hooker Hut in one hour twenty-five minutes. After a spell in the Hermitage, we were just like two schoolboys let out of school. We slept at the hut that night, and Kain joined us the following morning. Young was ill, so we rested the day to give him a chance to recover. Conrad Kain and myself spent the day piling up stones and flat rocks to make the foundations of the hut stronger, as others had felt its insecurity in a gale. On March 18th we started from the hut at 3 a.m. in misty weather, which caused us to miss our way and lose time going up the glacier after crossing over the divide. We had ice on the slabs down on the left of Fyfe's Pass, which made us climb very carefully down whatever small crack we could find. The snow-slope that would make Fyfe's

Pass easy early in the year had broken in two, and was in an avalanche condition, so we gave the slabs near the pass a wide berth, and on reaching the head of the Landsborough Valley were quite satisfied that by the time we had found a good camping-place on the flats down near the head of the Landsborough River we would have had a big day's work. It was very cheery to get a camp fire going, and we sat up quite a while enjoying the effect of the night in this most remote and almost inaccessible valley. Conrad Kain and myself started for Mount McKerrow at dawn without Young, who wished to be left behind. The day previous was his first big climb, and it had been too strenuous for him.

We descended the bank of the river, crossed, and climbed up the other side through bush on to the north-west ridge of the great McKerrow precipice, and climbed up the edge of these precipices on the edge of smooth slabs for several hours, after which we climbed up a snow-slope on our right up on to the ridge, which is a divide between a high valley from the Landsborough up the foot of the ridge towards Mount Hopkins and the head of the Hopkins Valley. We had a serrated ridge to climb to reach the final summit of Mount McKerrow, which we reached about noon after a difficult varied climb. The view from the summit was particularly wild, and most of the country we were looking on had never been visited by man, which make the scene much more enchanting. The view-point cannot be excelled; a near view of the Douglas Glacier as it crawls down on the West Coast side of Sefton and leaps off the

edge of the precipice down on to the valley below is a fine sight ; and all the west and north-west side of the Moorhouse Range and many of the well-known peaks on that side looked quite different from the view one is used to from the Muller side. It was the slab country in which a special kind of climbing is necessary to suit the actual work, and the slabs of McKerrow were similar to those on the ridge to the west of Fyfe's Pass and right along the Moorhouse Range on its north-west side ; but the slabs on the highest McKerrow ridge sloped down to the south-west. It is very hard to picture this great Landsborough country, which we were viewing from the top of a huge precipice to the south-east with a glacier crawling down at its foot from the snows of Mount Hopkins and Mount McKerrow. The snowfield extended about two miles towards the north-west, and was about half a mile wide, and its only escape from the elevated position was to avalanche off the top of the precipice or melt and flow over in water. We did the traverse of the highest peak and came down some way over the broken north-east face, continuing along the snowfield. We traversed two rock peaks with overhanging rocks on them to climb, on the snowfield about 8,000 feet, a little short of the height of Mount McKerrow, which is 8,047 feet, but of that one has to climb about 5,000 feet from the camp. This bit of exploration gives one a good idea of the exceptional difficulties and skilful climbing to be had in the wilds of New Zealand's low-lying valleys. We had covered the length of the Muller Glacier, climbed up over the ridge near Fyfe's Pass at a height of over

7,000 feet, or 4,500 feet in the height from the Hermitage. Then we descended a low valley to about 3,000 feet level, camped for the night, and next morning climbed to the summit of the peak (8,047 feet), after covering over 25 miles of wild high mountainous country, more difficult than anything round the Matterhorn, including climbing that mountain itself.

There is more satisfaction to be gained in climbing the great heights above sea-level, but one could climb one of the Himalayan mountains three times the height of Mount McKerrow without one-twentieth of the danger or difficulty, or the heavy swagging that we had—our swags to our camp were 40 to 50 lb. each. After we had surmounted the difficult rock peaks on the McKerrow ridge we made for a long snow-slope, down which we were able to glissade for over 2,000 feet; but it took us off our route which we had used during the ascent, and gave us some awkward climbing to reach the camp just about dusk. Dick Young had our dinner ready, and was glad to see us back. Next day, March 20th, we went down the Landsborough to see if it was possible to get on to the slopes of Mount Hooker. We had some of the most difficult boulders and side of the river country to traverse that it would be possible to find anywhere. We climbed one big square tower of rock to get a look at the river bed below, but got no idea from that, and we carefully climbed down by the crack we climbed it by. We christened it the "Watch Tower." The steep slopes were covered with dense bush, and where the river forced us to climb through the bush it gave us

plenty of hard work. In one place I had to wait until my companions climbed a broken face of shaly rock on the bank owing to stones being sent down by them. I hurried after them and descended towards the river in my haste to overtake them; the rocks they had gone across along the river were not easily seen, which made me conclude they had walked down the trunk of a big tree which had fallen across from the bank to a partly submerged rock in a square pool of water. I commenced to hurry down the log, my feet shot from under me owing to the tree having no bark on it, and I got a header into the water, but got out with nothing more than a shaking. My ice-axe had vanished, so I dropped two or three heavy stones in where the water was gurgling into the main stream, ran after my companions, borrowed Kain's ice-axe, got up to the neck in the water, and luckily hooked up the pick-end of my axe on the first attempt just where it might have been washed into the main stream. We proceeded down the valley without stopping until I began to get fairly dry. Then we pitched our Alpine tent on the top of a narrow bank where the river had cut a fairly deep channel. I had often told a story about my waterproof hunter's matchbox, to the effect that if one tumbled in a stream and just got out half-drowned one would instinctively feel for the matchbox and say thank goodness my matches are dry. Although this little appreciation of the matchbox had been repeated for many years, I had not been fortunate enough to be able to test it before now; so when Kain asked me for a match to light the fire I felt for the matchbox,

but the last man who had used it had not screwed it up to make it watertight, and the dip in the river was a failure. We had a big tin of beef for tea, and threw the empty tin on to the bank of river below, about 6 feet above the water's edge. It commenced to rain heavily in the night, and next morning, looking down to see if the tin was there, I saw the river had risen 6 feet and the tin had been washed away. This was sufficient warning to make us hustle for the top of the valley, which we started for as quickly as possible, because we had only two days' food left, and could not afford to be imprisoned in that steep valley; and our hasty retreat was only just in time. It took us all our time to wade across the mountain streams, the numerous landslides sent down rocks from the water-soaked high "breakaways" which often exposed the roots of the steep bush above. We were forced up over one of the "breakaways" about half-way up the valley, and it took us three hours to get 100 yards. Just as Conrad Kain was turning back to try another way, which would have caused a long delay and probably meant camping until morning, it occurred to me that perhaps a sapling standing up near an out-jutting fairly thick tree might be climbed. I managed to get up this sapling, stand on its top branches, reach the half-fallen but out-jutting pine, pull myself up with the arms, and help the others up after me. It was very lucky we did not turn back; as it was, we were forced to camp opposite the tongue of a glacier up a flat on the bank of the stream, which, like all other streams down that wild remote valley, had the appearance of

having spread itself very much wider at times. We had a damp bed that night, despite a big fire to try and cheer things up. This work in these lonely valleys of New Zealand would be splendid if one could only take a decent quantity of food, but the party's time available depends upon the food, therefore we were forced to cross streams which we would not have dreamed of crossing unless compelled. Conrad Kain was nearly washed away in one of the mountain torrents, which was over his waist, and both Young and I had a tussle to get across. We had several episodes down that valley that made it a trip to be remembered. We collected the balance of our kit from our base camp and trudged our way up towards Fyfe's Pass in our wet clothes, which made it heavy going, more especially as the sun came out. We rested some time while parts of our clothes were taken off and put out to dry. After a little lunch we pushed on to the steep slabs and made fairly good progress for the start, then as the slabs became steeper, and I was the last man climbing, directly under D. Young, with Conrad Kain above him, I thought that Young was not getting on too well, and we were just thinking of putting on the rope when the ice about 1,000 feet above us, a little to our left (but dominating our position), cracked and seemed about to avalanche. There was a sudden stampede by those above, while I stood to see what was going to happen. I was near a crack with running water deep enough to hide part of my body, so waited and had a drink of water; but nothing happened with the exception of a few small pieces of ice coming away. I had no

doubt about Dick Young's running ability after that—I had been told of his having won foot-races on the track against very good men, but I can now understand his speed, seeing he expected to race an avalanche. We found these slabs no easier going up than coming down, and were glad to cross the divide and make tracks down the Muller Glacier back to the hut for a well-earned rest.

We had made the first ascent of three peaks on the top of a great unexplored snow and ice-field that nobody had ever been on, the bottom slopes being very interesting country, and we all decided to pay it another visit whenever the chance presented itself. The snow and ice field is almost surrounded by precipices, the only side that is not guarded by precipices is the Landsborough side, which is clothed with very difficult dense bush and banks that are washed away by river floods. From the Hermitage anyone can have a wild trip by following our route.

The Chief Guide was quite disturbed because Dick Young had not had his first big climb on this trip; nearly every new Guide at the Hermitage has had his first big climb, or his first climb, as leader with me, and even the Chief Guide led for his first time during the first crossing of Mount Cook by my expedition in 1906.

Somebody has to give the new men their first climb, but nearly every climber likes to be sure their Guide is a tried man. Somehow in my case I was always willing to be used for this purpose. A new man on a big climb is always an unknown quantity; therefore one has to watch him closely and back him up well. One cannot be so particular

in picking a Guide in New Zealand as the climbers in the Swiss Alps or Rockies; there are no examinations to pass to become a porter or Guide.

The Chief Guide just looks over the man, and if he is strong and fairly active and will carry heavy swags he will do; of course, the Chief Guide has good judgment, and has selected some very good men from time to time. It would be a mistake to think that the Guides are always the best climbers, although tourists are quite satisfied with the name Guide, and it gives them confidence. Several of the Guides have always been polite and obliging, but by no means humble; able to hold their own on the principle that Jack is as good as his master. The Guide is looked up to and praised by the tourists, who admire this and that about him; this makes it very hard for anyone who comes along and sees nothing special to admire, and who, without making an effort to compete in any way, can hold his own. It is only natural a healthy veiled rivalry exists, and the climber had better see to it he is in good training, because no allowance is made for coming on the climb out of form; probably because one has to move to cover the long distances and difficulties of the high Alps of New Zealand.

CHAPTER V

SEASON 1916

Ascent of Sebastopol—Difficulty of getting three fine days—Mount Sefton Bivouac—Return to Hermitage—Climbing Mount Sefton—Tucker's Col—Sefton rock face—Loose piece of rock—Both summits climbed—Douglas Glacier—Return over Copeland—Attempt to traverse three peaks of Mount Cook—Caught in snowstorm on third peak—Return to Hermitage—Second attempt to traverse three peaks—Climb in moonlight—Ice conditions delay progress—Heavy step-cutting—Cornice breaks—Highest summit—Icy descent—Linda badly broken—Haast Bivouac—Hermitage welcome greeting—Climbing Mount Footstool—Summit—Traverse Malte Brun—Summit—Blondin act—Mount Cook in bad condition—Attempt La Perouse—Bad weather—Return to Hermitage.

I ARRIVED at the Hermitage January 29th, and made the journey to the Hooker Hut the same evening, and on to the Mount Cook Bivouac the next day, January 30th. Ascending to within about 300 feet of the summit of Mount Cook the following day, the details are given in the chapter of "Attempts on Mount Cook Alone." After this attempt bad weather kept me at the Hermitage until February 5th, when, despite heavy rain, I could not keep in any longer. On the morning of February 6th I made an ascent of Sebastopol from the Hermitage over the two peaks and back to the Hermitage in one hour and fifty-five minutes in the rain. It continued raining all day. It is surprising how well one can travel in the refreshing rain, and it seems to supply

one with more oxygen. On May 7th I wanted to start for the traverse of the three peaks of Mount Cook. I suggested to Graham at 7.15 a.m. on the morning of this lovely day that we might push on past the Hooker Hut and up to the bivouac the same day. Graham said it would be too late to kick steps the same evening, to which I agreed, so we decided to start for the Mount Sefton Bivouac the following day. The reason I suggested going through to the Hooker Bivouac was because it would mean the summit of the mountain in two days, while it is at present a matter of three days. One often gets two days clear, but three consecutive days' fine weather is much more rare than two days. We left for Mount Sefton Bivouac at 8.20 a.m. February 8th, and arrived there at 11.50. It is the same bivouac from which one climbs the Footstool. Graham and Milne found a way across the ice-face while I made the camp snug and brought water, etc. We retired early, but at 8 p.m. it commenced raining, and continued all night. The following morning, February 9th, we decided to wait up at this bivouac another night if it looked like clearing, but by 10.30 a.m. it had set in very much heavier. We left for the Hermitage at 11 a.m., and lost no time in bounding down the slopes, cutting off as much of the journey as possible by going across the terminal face of the Muller Moraine, making the journey from the Sefton Bivouac to the Hermitage by 12.35 a.m. for lunch. It cleared that afternoon about five o'clock, and the following morning, February 10th, we left for the Footstool Bivouac again at 1.30, arriving there at 4 p.m.

Graham and Milne kicked steps and crossed the ice-face, but found most of the ice-steps very good. It turned out a lovely evening, and we got into our sleeping-bags just as the stars began to show in the heavens; everything looked well for our climb. We were up early on February 11th, and made a start by the aid of the lantern at 3.30 a.m. The glacier was broken and needed careful ice-climbing. Once across the face, the steep rib of rock up to Tucker's Col had to be treated with respect, but we were all in good form; it was one of those happy days when one's spirit is attuned to the natural obstacles and the surmounting of them. We arrived at Tucker's Col at 8.15 a.m., had a snack of food, took photographs, also a keen look at Mount Sefton's famous loose rock-ridge that caused Mattias Zurbriggen to state "It was the most dangerous climb he had ever undertaken." It looked like a disused ruined castle, and reminded me of my younger days when trying to scale the walls of old Chepstow Castle in Monmouthshire. We left the col at 8.45 a.m., and tackled the rocks carefully. At first the patches of snow were awkward to negotiate. In one place we came across the head of an iron staple used by Zurbriggen in his descent, a thing that has never been used in New Zealand so far as I know. As we worked our way towards the Copeland side of the ridge the rocks became too steep for any snow. The rock-climbing was not very difficult, except in one place, where the bottom of a crack had been broken off since the last party climbed up. This small chimney needed very keen climbing: two of us stood on a very narrow ledge

overlooking a drop, and held the rope while Graham climbed to the ledge on the top of the crack. Then came my turn. When nearing the top of the crack I reached out for a grip on what should have been the top, but I found there was a fair-sized piece of rock loose ready to drop, and I was just able to hold on, and shout to Milne to stand close to the ledge and as far away from the crack as possible while I let the piece of rock fall down the precipice. As I let it drop it passed Milne by inches and dropped over 2,000 feet without striking anything. It is the unexpected things like this that one needs to be ready to cope with when climbing. Nothing further happened, and we were on the top rocks by 11.30, from which we cut steps across the snow-face. The snow had become furrowed and hard, and made step-cutting more difficult, but by good work on Graham's and Milne's part we reached the summit of the east peak by one o'clock in good weather, and had a very nice view for miles around. We did not spend long on this summit because there was a summit of this peak which had never been climbed. It was 20 yards to the west of us, and both peaks were very sharp and steep. It is questionable if that summit at times is not higher than the summit which other parties and ourselves had previously climbed. In my first ascent of Mount Sefton from the Copeland side we had contented ourselves with just climbing one summit. There had been three parties on this summit also, but nobody had climbed the west summit. We hastened down to the east peak and soon commenced to carefully climb across the crevasse,



NEAR SUMMIT, MOUNT SEFTON.



MOUNT SEFTON FROM FOOTSTOOL.

which is at its foot, through which we could see the bottom slopes of Mount Sefton; it was a most unique crevasse. The slope did not require much step-cutting, and we stood on the summit at 2 p.m. This was a good climb, and we felt very enterprising. Mount Sefton is 10,300 feet above the sea-level, but the actual twin summits are snow-drift, therefore according to the snow-drift of which they are formed, one or other summit may gain 10 or 15 feet, and any season either summit may be higher than the other, as this is regulated by the prevailing wind and snow-drift. It was about 2.20 p.m. that we hustled off this second peak and gained the Douglas Neve at 3.40 p.m. The glacier was much broken, so we had to take to the ridge overlooking the precipices seen from the Copeland Pass. We had to follow the entire length to a pass leading down to a small plateau, down which we had some awkward places to negotiate. As one looks back on a climb of this kind and thinks of the geological features of the places on a big mountain like this, where the condition of the mountain forced us over difficulties which had not hitherto been crossed, it gives one a fascinating feeling to go over that part once more, and not be compelled to hustle. Once down this plateau on the Copeland side we reached (Turner's) my old camp of our previous climb at 7 p.m., and it became very foggy with thick mist. Night came on while we were climbing down a particularly awkward chimney, down steep grass-slopes. It became too dangerous to proceed, so we decided to make the best of it and camp at 9 p.m. without tent or sleeping-bags where we

were. It was a cold night on scrub on a very steep face, and the attempt to perch there proved a failure. We had a vague idea where we had to descend, and at daylight, 4.30 a.m., it was luckily clear, and we began to scramble down all kinds of rock and scrub, down a steep stream-bed, reaching the Douglas Rock at 7 a.m. We were spared the loss of time so far as eating food was concerned, because we had none, and after boiling the billy left the Douglas Rock for the summit of the Copeland Pass at 9.50 a.m., reaching the lunch rock at 11.45 a.m., and the summit at 1.45 p.m. We descended to the Hooker Hut by 3 p.m., and after a welcome feed, arrived at the Hermitage at 6.10 p.m., February 12th, at the end of the third day of hard work and adventurous experiences, owing to the badly broken Douglas Glacier delaying us and making it such an extended traverse of Mount Sefton. We had been climbing from 3.30 a.m. to 9 p.m. the same night (eighteen and a half hours), and we had some very interesting experiences and hard travelling. We rested at the Hermitage owing to the bad weather until the 16th of February, but on the morning of the 17th the weather improved, and Graham and I discussed the climbing of Mount Cook by the three peaks. He was not well enough, therefore suggested I should take Milne and Lipp for the traverse of the three peaks. I had up to that time not been with Milne as leader on a big climb, and knew still less of Lipp, who was really not considered capable of such a big feat. However, it was a case of taking these two men and the extra risk it involved,



HOOKER BIVOUAC.



F. MILNE.

J. LIPP.

HEAD OF HOOKER GLACIER.

or losing my chance of traversing the three peaks of Mount Cook. I decided to take the chance of one more of the experiments which had made my climbs more enterprising, but otherwise had been all right up to now; and I told Graham that I would take them, although there was not the slightest doubt that any other climber would have insisted on the Chief Guide or someone as good, and a good second man like Milne was at that time. It is not always the Guide or porter's ability and skill that counts, but just a question of what the climber thinks of his men, the climber's confidence in them. Milne, Lipp, and I started for the Hooker Hut that afternoon and slept there that night.

We started very early next morning, February 18th, from the Hooker Hut, and over the usual route; we reached the Hooker Bivouac in five hours, despite the badly broken Hooker Glacier. I made the bivouac comfortable, and collected water while Milne and Lipp kicked the steps across the Empress Glacier, which from this bivouac is not difficult because the height of the bivouac is about the level at which we took up the rock arête that leads to the summit. On this occasion Milne and Lipp kicked steps a long way up the snow and came back tired. The weather was windy, and there was not much talk about starting in the morning, probably because the wind was threateningly strong. We retired to rest after a good dinner. About midnight Lipp said the wind was too strong to cross the ridge, and Milne agreed, therefore, without going outside the tent, it was decided to rest that day. It is a very exposed

ridge, and could not be crossed in a strong wind, therefore it is better to be over-cautious rather than get into difficulties. We were very pleased with this day of rest (Sunday), and it made us eager to start the climb the same midnight. We scrambled out of the Alpine tent, and although the weather did not seem to have settled, we started at 1.30 a.m. across the Empress Glacier over the steps so well made two days before. The clear night and strong moonlight (which is always much stronger in the high alps than at sea-level) enabled us to see our way fairly well. We made good progress across the Empress Glacier under the second peak up the slopes to the rock-ridge leading directly off the Empress Glacier slopes. The rock-climbing was good, and we covered the new route, which my party made to the third peak in 1914. Everything was going well, when all at once a sudden change came over the mountain as we climbed the last rocks on to the final snow-slope. We pushed on and got near the summit when the snowladen cloud enveloped us and sprinkled the rocks with snow blown all round the peak by a fairly cold strong wind. My companions, particularly Milne, began to feel the cold, and I was able to hand out one or two extra pieces of clothing from what my companions had christened "My second-hand clothes' shop." They were very pleased to get something warmer than they had with them, and must have silently appreciated the fact that they were climbing with one who takes sufficient clothing for the most severe storm. It pays to carry extra clothes any time rather than risk being frozen once. We left the last few feet



THREE PEAKS, MOUNT COOK, FROM THIRD SUMMIT.



HOOKER SIDE, MOUNT COOK, SHOWING BIVOUAC ROCK.

of the tiptop of the summit unclimbed, and at 5.45 a.m. came to the conclusion that the traverse of the three peaks was not advisable in that unsettled weather.

Starting the descent of the snow-sprinkled rocks at 6 a.m., we reached the bivouac at 9.45, left the bivouac soon after 10 a.m., reaching the Pudding Rock in fifty-three minutes, running unroped all the way. Lipp missed his footing and just saved himself on the edge of a crevasse on the steep part of the Hooker Glacier. We rested a few minutes for food, then descended the rock and made the Hooker Hut by 1.30 p.m., had a sumptuous lunch, left again at 2.45, and reached the Hermitage at 4.40 p.m.

The times were good from the bivouac of within 50 feet of the summit of the third peak to Mount Cook and down to the Hermitage in fifteen hours ten minutes, the third peak being 11,787 feet down to 2,500 feet, and about 18 miles to the Hermitage. The descent took from six o'clock on the third peak of Mount Cook to the Hermitage at 4.40 p.m. The sudden changes on the slopes of Mount Cook were very interesting. Early in the morning no water was seen flowing anywhere. Then as the snowstorm came along and sprinkled the mountain with snow the hot sun turned it to water and loosened all the water on the mountain, and as one hustled off to the lower slopes it was very difficult to evade a wetting. It rained all day February 21st, and we were very glad of a rest. Soon after lunch it became beautifully fine, so we held a hurried consultation and determined on a return by the same route. We left for the Hooker

Hut again on February 22nd for our second attempt on the three peaks of Mount Cook, and we had the most promising conditions possible. We had enjoyed a beautiful sunset on our way to the hut, and after early dinner everyone was in good spirits. We retired to rest early, and left the Hooker Hut February 23rd at 4.35 a.m., making fairly good progress and taking photographs up the glacier. We arrived at the Hooker Bivouac at 9.35 a.m., this gave us plenty of time for rest and step-kicking. It was a glorious day, and everything looked good for the climb, and we retired specially early in order to make a very early start, as we expected the cold wind of the past few days to freeze the snow on the ridge. We had luckily brought an alarm watch with illuminated dial, which was an improvement on the baby alarm clock with a sleep-disturbing tick. This helped us to go to sleep earlier. One of the chief qualifications for high climbing is to be able to sleep and not worry about the following day; but it is equally important to rise at the right hour for the distance or difficulty of the climb. We left the bivouac very secure, because we would not be returning to this bivouac.

Starting at 1.5 a.m. we made even quicker time over the glacier than on our first attempt, but the light of the moon was not so good. It was a weird climb up the very steep rocks, but we were very determined to put the three peaks under our feet this time. I don't remember the dawn or daylight coming, because we were climbing seriously and quickly. We saw a light out towards the sea-coast, but could not make out what it was.

The darkness of the valley below was a contrast to the early morning light as we reached the summit of the third peak. It was only 4.30 a.m., and we had easily climbed to the summit in three hours twenty-five minutes, which was faster by over one hour than the previous fastest party. We paused for a few minutes to carefully examine the route we had to traverse. The third peak on which we stood is 11,787 feet; from there to the middle peak, 12,173 feet, presented two or three places requiring care and skill, but we could not see beyond. We commenced to descend off the sharp snow ridge down over rocks on to the dip between the third and second peak. It was slow work, requiring careful step-cutting, as it was all ice-glazed and badly corniced in such a manner that one had to assume that the mountain and not space was under the snow we were cutting across. Its iced conditions made the ridge much sharper than in snow conditions, and the wind-furrowed frozen snow made it awkward for the rope. A big wide steep slope carefully cut round, we gradually reached the second summit at 9.5 a.m. We had some refreshments, and left at 9.25. The rocks on the very top of the ridge had to be climbed over, and they were both steep and ice-glazed, with the Tasman face of Mount Cook below; we had some trouble in getting over, and while endeavouring to extract the rope the cornice broke: lucky we did not go with it. I had spoken to Graham and informed him that I wanted to do a third of the step-cutting on this climb, and asked him to instruct his men; but although I repeatedly asked for a share of the

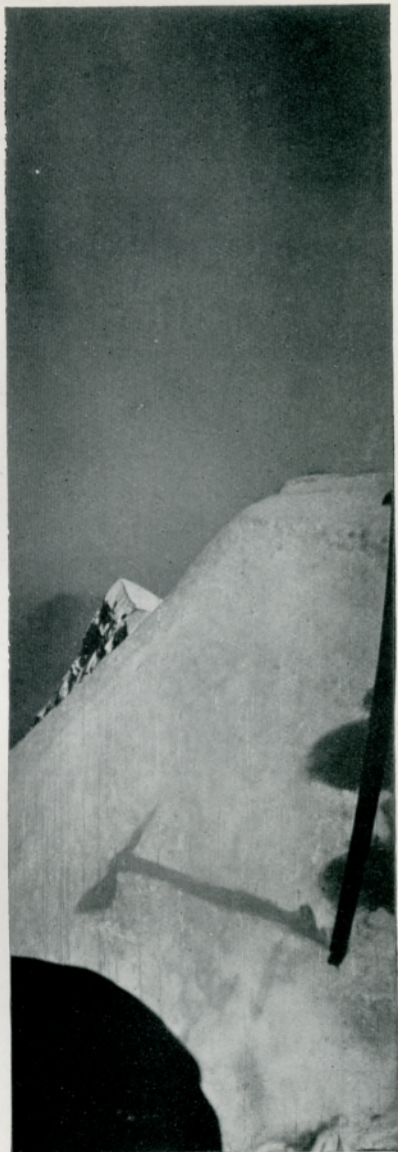
cutting, the men with me kept the work in their own hands, although the time was moving on hour after hour, and we had many changes of step-cutting from one to the other very frequently. The final slope leading to the highest peak of Mount Cook was one of the steepest slopes I have ever seen. The shape of the rocks enables the summit snow to be accumulated at a very much steeper angle than usual.

Determination brings even the longest ridge to a finish, and we stood on the summit of Mount Cook at 2.5 p.m. We took photographs, and enjoyed the view and some refreshments.

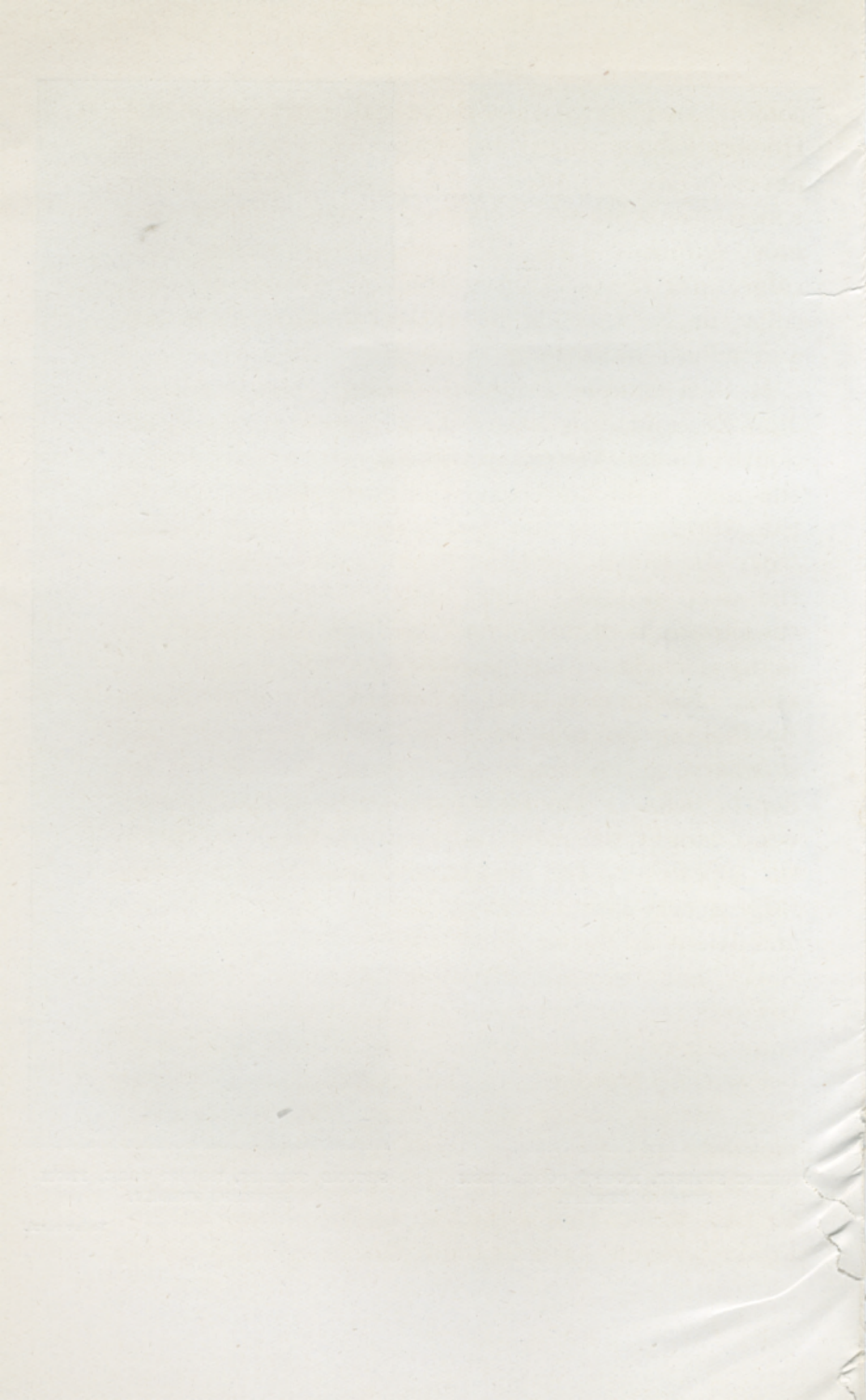
We had been on the summit ridge of New Zealand and had feasted on the view as our slow progress across the ridge continued. It was a wonderful varying panorama of old friendly mountain faces, changing their aspect as we crossed that great serrated ridge in nine and a half hours of intense life. The first party to cross this ridge was Miss Du Faur's, with Guides Peter Graham and Darby Thomson, and it had been called The Grand Traverse of Mount Cook, and a prediction made that it would probably be years before it was crossed a second time, etc., but within three years we were the second party to repeat the traverse of these three peaks, and in good snow conditions this traverse is very much easier than the first traverse of Mount Cook up the Tasman face and down the Hooker side. As a matter of fact, the Empress and the Linda Glacier takes three-quarters of the time of this traverse. There is very much more climbing of the mountain by going up the Tasman face and down the Hooker side to Green's



HIGHEST SUMMIT, MOUNT COOK, FROM
SECOND SUMMIT.



SECOND SUMMIT, MOUNT COOK, FROM
HIGHEST SUMMIT.



couloir, then down that couloir to the head of the Hooker Glacier. In any case that traverse has never been attempted since it was done in 1906, which seems to show its importance. There is a most exquisite view while gradually crossing this ridge, and it is certainly the longest ice or snow ridge in New Zealand. It seems more than one and a half miles long.

It is a unique ridge, poised up on the top of New Zealand, this lovely strip of land in the great South Pacific Ocean, a fitting summit ridge for the most wild and rugged country for its size in the world. It is the Switzerland of the Pacific, with its fjords covered with dense virgin bush, the deep remote valleys difficult of access, with the hundreds of unclimbed peaks on each side, with many icefields and glaciers not yet trodden by man. No matter what extra risk one might take by looking far and wide at the enchanting view, it was so interesting that it made one forget the depths below. The hard ice-furrows caused by cold wind caught the rope and made us pause to shake the rope free. The ice-glazed conditions made this ridge a very long business, and we hoped for better conditions when we came to the Linda Glacier.

We left the summit about 3 p.m., descended towards the Green's couloir, then crossed under the snowcap of Mount Cook on to the north-east face below the bergschrund. The cutting down became very severe, being hard snow, but by steady plodding (J. Lipp did some useful step-cutting) we descended slowly to the summit rocks, and hurried down the rocks on to the head of the Linda Glacier. We lost no time in getting across

the steep snow-slopes under the summit rocks, but had to chip steps right across to the Mount Dampier slopes; then, despite the hard snow, we ran as hard as our legs could carry us. We had to pull up because J. Lipp slipped about 50 feet and looked like shooting into a crevasse. This slip made us more steady, but we knew these slopes were avalanche tracks, and had to be got over quickly. Nightfall came on us as we got down to about the middle of the glacier.

We lit the lantern and pushed on amongst the ice, which became badly broken: it became so badly broken opposite the rock arête of Mount Cook that we had to wait some time for the full moon to show itself and its welcome light before we could proceed. A sérac fell close to where we were resting, and it startled us. Milne went ahead to try and find a way, and he did some very fine work, which enabled us to get across the broken ice. In one place we had to jump on to a piece of ice standing up from a snow bridge spanning a deep crevasse, then zigzag amongst a mass of confused ice until we emerged on to the bed of the glacier. The glacier was practically cut off, but we had to get down, and it is surprising what one can do when it is a case of must.

We made good progress up on to the Glacier Dome, but had to chip steps up on to the dome, and unfortunately down off the dome almost to the rocks just above the hut. It was a record long day of step-cutting and chipping, and both Guides had done well, but F. Milne excelled himself. We were glad to get to the hut at 3 a.m., after twenty-five hours and thirty-five minutes' con-

tinuous climbing. We had two nights of full moon, which made our journey very much easier and a delightful climb. We rested until late that morning, then we made for the Ball Hut after lunch, and managed to arrive at the Hermitage at 7 p.m. There was a crowd of people awaiting our arrival to give us a welcome, including a celebrated cornet player. It was useless trying to get in at the back door, we were met and suitably congratulated.

February 26th and 27th were days of welcome rest, but on February 28th the weather was too good to miss a climb. Frank Milne, Radcliffe, and myself started for the Stocking Bivouac at 2.35 p.m., arriving there at 5.30 in time for a little step-kicking in order to help us in the ascent of the Footstool, 9,050 feet, the following day. We arose about 2.45 a.m., and after breakfast made a start for the summit at 4.15. We had fairly broken ice at the head of the Stocking Glacier, and it was careful climbing over the ridge; but we made very quick time up to the final rock, which had to be treated with care. The rocks nearing the summit were very rotten pieces of rock, slipping from under one's feet just as we were going along the summit ridge to the final tip of the summit.

Coming past a big boulder which had been loosened, it just rolled past me as I was in the act of stepping forward; a second or two later and it would have been a serious matter. It dropped down the Copeland Valley side. We arrived on the summit at 9.30, in five hours and fifteen minutes from the bivouac. We rested half an hour, enjoying

the view of the Alps and Mount Sefton's rock ridge in particular. We flashed a mirror to the Hermitage, which was seen. When we left the summit we took to the steep snow-slopes higher up the mountain than was the case when coming up, this gave us a good glissade. We descended fairly quickly to the bivouac without much trouble in three and a half hours.

Our actual climbing times for this ascent were four and a half hours to the summit, three and a half hours down, with one hour and fifty-five minutes' rest in between the time from the hut and back again. We descended to the Hermitage the same day in about two and a half hours. We rested the following day, March 2nd, and bad weather forced us to rest on the 3rd and 4th of March.

At 1.20 a.m., on March 4th, the Hermitage and all inside were shaken violently by one of the typical New Zealand tremors of the earth, which most people call earthquakes. It was the most violent tremor which I had experienced in the mountains, although no doubt there are many minor tremors that one never feels.

On March 5th, Radcliffe, F. Milne, and myself left for the Ball Hut and stayed the night, and started early next morning for the Malte Brun Hut, which we reached in five hours. We rested the remainder of the day and enjoyed a close view of the sunset on the summit of Mount Cook before retiring to rest. We started for Mount Aiguille Rouge at 5.15, quickly crossing over the west ridge of Mount Malte Brun. We descended across the glacier up to the moraine at the base of our peak. We ascended from the lake (which I chris-

tened Heart Lake) to the summit of Mount Aiguille Rouge in one and a half hours ; we had good slabs and ledge climbing from left to right.

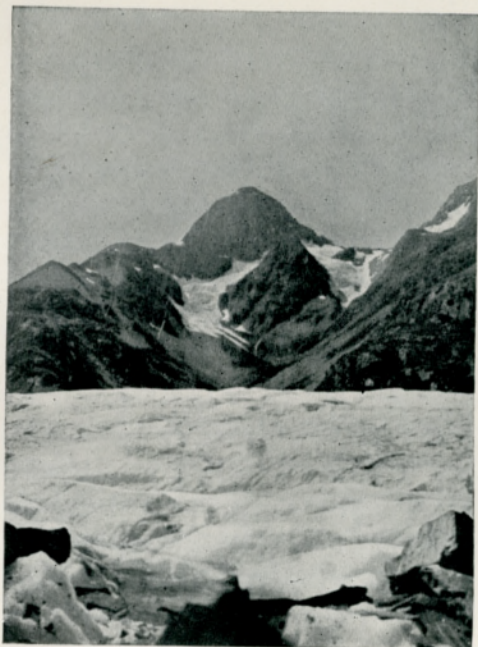
Nearing the summit an awkward cleft on the rock runs direct to the summit, making the climb interesting. We made a brief stay on the summit and traversed the peak by going along the ridge and down ledges to the middle of the glacier, where a schrund threatened to cut us off.

I cut across to the right and down a steep wall, where I found a fine piece of ice to cross the schrund. We zigzagged across the face and down two small snow-shutes down to the shingle, and on to where we had left our rucksacks at the lake-side. We had a nice bath on the small lakelet, at a height of 8,000 feet, one of the coldest baths in New Zealand. We reached the Malte Brun Hut at 2.40 p.m. Our times were from 5.5 a.m. to 10.15 to the summit, having taken it easy ; then we rested one hour on the summit, which I spent in examining the slopes of Mount Nathan, a difficult rock peak next to Aiguille Rouge. We left the summit at 11.15 a.m., and reached the Malte Brun Hut as mentioned by 2.40 p.m., making the ascent in exactly five hours, counting all stops, and taking three hours and twenty-five minutes for the descent.

We rested the remainder of that day, and awoke at 4.30 a.m. next morning, and started for Mount Malte Brun at 6.10 a.m. by the west ridge. The first hour was spent climbing the gully, shingle, and snow-slopes to the ridge, up good steep rocks, then a rotten shoulder of rock leads into a peculiar place where the ridge is falling away from

the upper precipices. We climbed an open chimney or water race with loose shaly rock, but good handholes, then to the left, across shaly slopes, and across the ridge to very good rock and steep climbing on the crest of a ridge, some of the steepest and best climbing on the mountain. The ridge of narrow slabs extends for quite a distance.

One soon gets accustomed to climbing in whatever way the mountain demands. In this case the most skilful and efficient way was to walk on top of these slabs for some distance, and one became so practised in the art of slab-walking on this ridge that I became keen on walking across that 70 feet of narrow ridge about 2 inches wide, which all climbers sit astride and work their way across, including Miss Du Faur, who calls it in her book, page 51, "a sensational ridge," and her graphic description of this ridge with its isolation and terror seemed to attract me for "a Blondin act." We came to where the ridge dipped suddenly, and the rope was let out for Milne and then Radcliffe to get on to the ridge, and as I neared it my mind was made up to walk across it to show the great Australian lady climber the most ladylike way. They sat astride the ridge and worked their way across like all other climbers, Radcliffe waiting about 50 feet along the ridge to allow me to get down to the level. The top of the ridge, although not more than 2 inches wide, was fairly level, and it gave me very little trouble; half-way across I paused to let Radcliffe continue to the end, then I continued. Just about two-thirds of the way across, as I looked at my two amazed companions, my foot moved a piece of loose rock, and



MOUNT MALTE BRUN FROM TASMAN GLACIER.



S. TURNER AND RADCLIFFE, SUMMIT OF MOUNT MALTE BRUN.

I was nearly compelled to throw myself on to the ridge, but by a keen effort of will I managed without more than a slight stoop of the body, then quickly standing upright completed the balance of the journey. Mount Malte Brun is 10,200 feet above sea-level, and this unique sharp slab of rock is poised at a height of 10,000 feet. It is so sharp that about 4 feet from the actual ridge it is about 3 feet through, and tapers gradually for 30 to 40 feet, when it drops hundreds of feet to very narrow ledges, which broaden a little, then drops thousands of feet on each side. It is the sharpest ridge I have crossed, and "the narrow ridge" on any mountain has always had an attraction for me when the rock is firm.

After this huge slab of rock a narrow arête runs to the summit; it was one more piece of that formidable-looking but easy-climbing rock which one finds on these mountains. Generally speaking, the only thing that makes most mountains look formidable is looking at the steepness from a distance. We arrived on the summit at 11.10, exactly five hours; but our time would have been less than four and a half hours but for the halts called by Radcliffe to enable him to have a smoke. Frank Milne and myself never indulge in such luxuries, which affect climbers in many ways, including shortness of wind.

The view from Mount Malte Brun is one of the best in the Southern Alps. The summit is about the correct height from which to see the highest alps, the glaciers and precipices that dip down in all directions. After taking photographs, we placed our record in the summit rocks, and at 12.10 com-

menced the descent. The steep rock and snow-ridge made it careful going until we neared the last summit, when we turned to the left just before the last ridge leading to the summit. In this we intended making a traverse of the mountain up the west ridge and down the north-west face. The descent we made was down previously unclimbed ledges, chimneys, slabs, and some awkward pieces of rock overhanging and outward dipping; and if one had not a relish for difficult rock-climbing it would have been a serious struggle. The difference between getting oneself into difficulties and a first-class rock-climb is only a question of appetite; in our case it was a first-class rock-climb most of the way down, except that while leading we were not able to see over the ledges, and I only steered clear of trouble by judging the strata of the rock on the mountain correctly; also we managed to get on to the only piece of rock where it would have been possible to get on to the glacier below owing to the edge of the glacier having receded from the rock several yards all round the base of the rocks. This one place was ice-worn, and H. Radcliffe got into difficulties and dropped his ice-axe on to the lip of the snow below; fortunately, the sharp pick side of the axe stuck into the hard snow, and we were able to get it. A cannonade of stones showered over us, but we had a most lucky escape in not being hit.

We had descended from the summit to the glacier in three hours of good climbing. After getting out of the line of the falling stones, we had some lunch, and afterwards proceeded down the glacier to the Malte Brun Hut, which we reached

at 5.50 p.m., eleven hours and forty minutes of good climbing, particularly the new route in the descent.

On March 9th we left the Malte Brun Hut at 6.30 a.m., and made good time down the glacier, arriving at the Ball Hut at 10.30 a.m., had a good rest, and strolled down to the Hermitage in the afternoon. We rested at the Hermitage in bad weather March the 10th to the 12th; but with F. Milne I left for the Hooker Hut March 13th at 2.30 p.m., and on our way we met a party of tourists near the Stocking Glacier stream just about to have afternoon tea, to which they kindly invited us. It was a lovely afternoon, and we spent a joyous half-hour, and proceeded with grateful feelings. We reached the Hooker Hut at 6.30 p.m. March 14th. We left the Hooker Hut about 6 a.m. for the Hooker Bivouac to see what Earl's route up Mount Cook was like. We were delayed owing to the bad state of the ice. We met difficult ice before getting on to the Pudding Rock, and after climbing this rock the upper Hooker Glacier was very much of a puzzle; and although we only took twenty minutes to climb the 350 feet of cliff up the Pudding Rock, it took us until noon to reach the high bivouac. The frail snow bridges we had crossed during the ascent took cautious climbing. One snow bridge was about 12 yards long and from 6 to 24 inches broad, at an angle of 30 degrees; another bridge was about 6 yards long and from 3 to 4 inches broad at an angle of about 25 degrees. If these bridges had broken before our return we would have been in for trouble. Owing to bad ice conditions we

abandoned Mount Cook, and after lunch we started from the bivouac at two o'clock and cut steps until 5.30 p.m. up on to the ridge of La Perouse. Under ordinary conditions this would take about half the time, but we had to do all kinds of gymnastic ice-work and take some risk of séracs falling. The descent of Mount Cook via Earl's route was out of the question owing to the rocks being plastered with ice, and from this ridge we could see that the head of the Hooker Glacier was almost cut off from the couloir leading to the ridge by huge ice breaks. The ridge we had climbed was not much better, and it was necessary to have a cold night to freeze the loose ice to give us any chance of climbing this ridge in the early morning, otherwise some of the splinters of ice would be gone before morning and our track with them. After enjoying the view of the West Coast for a few minutes we began our gymnastic feats over again, and carefully landed on to the bed of the glacier after two hours of good ice-work. That evening the weather became unsettled and showery and warm. This would put the finishing touch to our ice-face, so we made the best of it, slept an extra hour or two, and packed up and commenced the descent. The usual two fine days and then bad weather had been responsible for a large number of failures, which would be obviated by building a hut on the bivouac up that glacier. The sudden changes of weather are certainly the most serious drawback to the climbing in New Zealand. The sudden changes of mountain conditions are also very awkward things to encounter on these climbs. The warm wind from Australia

comes across the Tasman Sea filled with salt from contact with the sea. It deposits its moist-laden clouds on the snow and ice-slopes, and suddenly changes good snow into bad. It is these very hot winds that often break up the ice so quickly about the beginning of March and make what is a simple walk up the Hooker Glacier in January a very difficult ice-climb in March. We experienced this sudden change on this occasion. Descending the glacier under the slopes of La Perouse was more interesting than usual, because we had to keep a sharp look out for falling stones and ice. We had seen several big avalanches sweep the ice-face near Baker's Saddle while ascending, but with the exception of falling stones, which rattled down an unseen chimney and came out some hundreds of feet below on the bottom slopes, nothing of interest occurred, and we lunched on the top of the Pudding Rock, and reached the Hooker Hut the same afternoon, and went on to the Hermitage the same evening. The ice was particularly bad this year, and this climb brought to a close the ice-climbs this season. On the 16th of March the weather became doubtful, which ended in bad weather: and after waiting from the 16th to the 18th of March with no sign of improvement, I left for home on March 19th.

CHAPTER VI

SEASON 1917-18

Training on Mount Egmont—Ruapehu—Nobody ascended Mount Cook 1918—Crossing snow-covered crevasses—Haast Hut—Ascended Mount Aiguille Rouge alone—New route—Hand traverse—Return to Hermitage—Mount Footstool alone—Climbing Mount Nathan alone—A great crack and awkward angle—A risky climb—Summit of Mount Nathan—Rejoined my witness—Returned Malte Brun Hut.

As part of my system of training, the climbing of Mount Egmont was included, and during 1916 I made the ascent several times during the winter, and four times in three days in the summer. On December 29th I climbed from the Dawson Falls Mountain House to the summit before lunch; then after lunch climbed to the lip of the crater before tea. The weather was not too favourable for the second climb.

On December 30th I motored to a town 16 miles away to do some business, and returned the same evening. After arranging with Mr. J. Murphy (the Guide at the Dawson Falls House) to time me, I left the house at 5.45 a.m. December 31st, and reached the summit. While I was having a drink of tea, a party from the New Plymouth side, led by Mr. Williams the Guide, were just coming up the long ice-slope leading into the crater, and they saw me plant my rucksack in the snow in the

crater. I had morning tea at the New Plymouth House, and returned over the Trig Station summit and back to the Dawson Falls Mountain House. The times were: Left Dawson Falls 5.45 a.m.; reached the summit and descended to the New Plymouth House 9.10 a.m.; rested until 12 noon; left at noon; reached summit at 2.30 p.m., and descended to Dawson Falls by 4.10 p.m. Guide Murphy certified these times. As training for climbing I had made the ascent of Mount Egmont twenty-six times, sixteen of which had been alone in the winter—which on occasions has given me eight or nine hours' step-cutting in hard snow conditions. I also climbed four times to the summit of Mount Ruapehu, 9,150 feet, on the last occasion four hours to the crater and two and a half back to the hut.

This season was intended for the climbing of Mount Cook alone; but the glacier, snow, and weather conditions produced a number of risky attempts with very little gained by them, except some good experience and practice on very difficult snow-covered broken ice. Nobody ascended Mount Cook during this season, although there were numerous attempts.

During the bad weather conditions I managed to make two climbs alone: one of the unclimbed twin peaks on the east of Mount Cook, and the other was of Mount Aiguille Rouge.

On February 6th it was snowing at 4.20 a.m., but it cleared while I was preparing and enjoying breakfast, and this enabled me to leave the hut at 8.15 a.m. The conditions were against climbing, but in such a bad season it was not likely to get

better ; so making myself content to plod through the soft snow, I reached the dome in reasonably good time, and went carefully down on to the plateau. The journey to the Twin Peaks would be easy in good conditions, but with deep fresh snow covering the badly broken glacier one had to feel with the ice-axe shaft every few yards for the concealed crevasses. The distance from the top of the dome to the base of the two rock peaks is about four miles, one cannot go straight across, and it becomes a very trying monotonous trip. The most important thing when crossing a badly crevassed ice-field deeply covered by fresh soft snow is to find the direction of the crevasses and make your route across them, because walking along the side is a dangerous practice.

As the ice-axe slipped deep into the crevasse one had to jerk back to prevent taking the step forward, until the width of the crevasses could be gauged by more probing with the axe. During my progress along the base of the Linda Glacier I realized that the crevasses had changed their direction, because my foot slipped deep into one, and before the snow fell in it gave me time to roll over off the edge. It was a narrow shave, and I changed my direction, making my course across the crevasses as much as possible.

On the slope up to the peaks the crevasses were more exposed, and by thoughtful steering I gained the base of the ridge leading up to the first peak without incident. The rocks overlook the Tasman Glacier about 5,000 feet below, and the strata of the limestone rock dipped the wrong way for

comfortable climbing, particularly when I was alone and had not even the moral support of the rope.

On no part of this first peak could one take liberties. After building a cairn and placing my record on the first peak, the second peak appealed to me temptingly, and to get to the second peak there was a decent piece of climbing.

The first peak came to a steep wall of rock dividing the two peaks, making them two distinct peaks, with a deep gully running down between them. Lowering myself off a wall of rock with scanty handholds and an awkward dip, my only foothold was on a thin slab of rock flat up against the wall, and the sharp top just enough to allow me to stand on one foot and manœuvre to place my hands where my foot was. It was loose, and it was a relief to get down off the ledge. After crossing the gully the ledges were easy, and I was soon building my second cairn, and placed my record, in both cases christening them "Anzacs." It did not take me long to get down to the base of the rock. It was nearly cut off by a huge bergschrund, but after I had worked my way across scanty ledges it gave me a very easy take-off just near the pass between Mount Cook and these peaks. Once on the snow it was easy to make up time by glissading, until the badly crevassed part was reached. The weather was threatening, and being anxious to get to the hut before dark my return speed was much quicker than the pace of the ascent.

It is always a good plan, even if one sacrifices distance, to travel down on the steps that have

been tried during the ascent; but in soft snow conditions it is taking extra risks not to keep very carefully in the steps. On soft snow conditions like I had, the real danger was in fresh snow falling, but luckily it only threatened and then cleared away. It was 7.45 p.m. when I arrived back at the hut, and for some distance the sunset was gradually giving way to a lovely moon, which shone above and over the peaks at the head of the Tasman Glacier, mingling with the sunset, and made quite a stereoscopic picture of the most enchanting kind.

The bad conditions made me abandon all hope for some days of climbing Mount Cook from the Linda Glacier side. I rested the following day, February 7th, at the Haast Ridge, but was feeling the effects of a scarcity of food.

After a scanty breakfast on February 8th I commenced the journey to the Hermitage. On my way down the Haast Ridge, Jim Stout, who was coming up with food for the hut, tempted me with the news that he had in his swag both bacon and eggs. We climbed back to the hut, and both cooked and enjoyed the feast together. The food at the hut had been very poor and scarce, and Stout's load was a timely help to overcome the feeling one gets through scarcity of food, when the belt needs another hole made in it for the buckle. We descended the Haast Ridge slowly together, and Jim made a cup of tea at the old hut-builder's camp, and related some of his experiences during the building of the Haast Ridge Memorial Hut. Jim had often called attention to the thick wooden door of the hut which he had

carried up the ridge on his back, which was a good feat and a great contrast to the performance of a certain journalistic writer, who in his book takes about eight pages to describe his party's climb to this Haast Ridge Bivouac up this same ridge a few years earlier. From the Haast Hut we had a pleasant journey back to the Ball Hut, and on to the Hermitage in seven hours, and having been in the hut about thirteen days, mostly alone, it was a pleasant change.

After another climb to the head of the Hooker Glacier, I returned to the Haast Ridge Hut for a renewed attack, but both attempts were useless.

The attempt up the Hooker side with J. Lipp proved the Mount Cook rocks to be ice-glazed then. The attack on the Linda side this time was with R. Young, but he refused to go beyond a certain point in the broken glacier owing to a threatening sérac on the Silberhorn precipice, which dominated the Linda Glacier route. We called it the "Linda Ghost." I could not proceed by myself because, seeing I was a married man and Young at that time single, if anything happened I would have been branded as a reckless and foolish climber.

I photographed Young sitting up on the slopes in a safe position, and continued some distance to see what the glacier was like higher up, and after seeing that it was too badly broken and cut off, decided to postpone the attempt on Mount Cook. This was February 22nd. After spending nearly one month in the siege of Mount Cook, on February 23rd Young went on to the Hermitage, and I went

alone to the Malte Brun Hut. It is an unusual way to take the journey from the Haast Ridge, but Mount Aiguille Rouge (9,731) seemed to be clear of snow on the rocks, and was the only peak in the district that seemed in climbable condition seen from the Haast Ridge. February 24th, with a light swag, the going up the rock to the Malte Brun arête was good. I descended the shaly slopes to the Beathem Glacier, and climbed down a ledge on to its western slopes. It was in moderate hard snow condition, making step-cutting necessary and not altogether comfortable work, owing to the precipices of Mount Malte Brun shedding stones across this ice-face from time to time. There is always a little life amongst the New Zealand Alps, and wherever you may be climbing, so one gets used to the uncertainty of falling stones. I was pleased when this face had been traversed. After resting a few minutes at the Heart Lake, during which time I tried to select the route that Milne, Radcliffe, and myself had climbed this peak by, but not being able to recognize it, made up my mind to get nearer to the two or three ribs of rock and take the one that seemed to go to the summit the most direct way. I actually took the second rib of rock on the right of the glacier and climbed straight up, making for part of the way a new route. It is a fine feeling that comes to one, after all kinds of climbing experiences, that, come what may, it can be surmounted. I did not take very careful note of the route, but writing these notes from memory there are one or two bits of climbing which have impressed me. One was a sharp piece of rock

going towards the direction of the summit which gave me a pure hand traverse, my legs dangling over a deep overhanging drop of several hundred feet. As I neared the end of the hand traverse it dropped suddenly, and I had to take a chance that the ledge it would land me on was good. It turned out fairly well. It led me into a crack leading up from the edge of the precipice, which, after negotiating, took me up a wide chimney not far from the summit, where I arrived after about five and a half hours from the Malte Brun Hut.

From the summit the high slabs of Mount Nathan (9,200) were very impressive, and as nobody had ever attempted that peak, I made up my mind to climb it on the first possible occasion.

I left my record on the summit of Mount Aiguille Rouge, and continued the traverse of the peak down the snow-slopes, quickly making my way across the glacier. In climbing up the rock ridge to take off the glacier I got on to a very awkward piece of loose rock, which made me take every possible care not to move a stone, and once on top of this rotten wall of rock felt the want of a companion at the other end of the rope. The remainder of the journey to the hut was without incident, and I arrived about 6 p.m. I was able to cook myself early dinner, and enjoy a few hours' extra rest that night, as I intended to return to the Hermitage the next day on account of the bad condition of the peaks on the Malte Brun Range.

February 26th I returned to the Hermitage, spending about twelve hours on the journey, and thoroughly enjoyed the glacier, which was badly

broken. I left the Hermitage for home the day after my arrival from the mountains, with the hope that 1918-1919 season would find the conditions much better.

I arrived at the Hermitage January 19, 1918.

Amongst my efforts to climb Mount Cook this holiday I managed to make two other guideless climbs, and in this way I was training myself more thoroughly.

The climbing of the Footstools was very interesting, although slow on account of the bad conditions of the glacier. It was fourteen hours of good solid plugging in soft snow, which made the loose rock on the ridge very careful work, as there is nothing worse to climb on than loose rocks on a sharp ridge covered with about 12 inches of soft snow and a steep drop underneath; this ridge is next to unclimbable in such conditions, but the hot sun was quickly thawing and turning it into slush. The snow on the Footstool is particularly steep, leading from the north-east glacier, but one can get a swift glissade down this slope when in good condition, therefore, remembering that, one climbs more cheerfully. Negotiating the ridge on the descent was much more difficult in the bad snow-covered conditions than it was during the ascent; and in one place I spent about two hours getting off a wall about 30 feet of very loose shale, which had some uninviting bergschrunds underneath.

This peak gives one a splendid idea of the peaks in the Hermitage district because it is just about the right height to give one the correct appreciation of depths and heights. There are deep chasms on

the Copeland side which are very rugged, and a cannonade of stones gives you a good idea of the depths. The Footstool is a good test for the most difficult climbs in the alps, and it is not too long for a peak to train on.

On February 18th, in company with Jim Stout and two tourists, we left for the Ball Hut, and slept there the same evening. We were up early next morning, and left the Ball Hut for the Malte Brun Hut at 5 a.m.; the going was good, and we arrived at the Malte Brun Hut at 10 a.m., and had a good rest that day. It was my intention to make the first ascent of Mount Nathan alone, and Jim Stout was taken as a witness. We left the hut at 5.15 a.m., and commenced to climb up the second couloir, but one of the tourists was not able to manage the climb, so Jim Stout went back to the hut with him, while I went on with Mr. Johnson, who agreed to act as witness of the climb. The route over the ridge was a little to the right of the route down the Aiguille Rouge, but nobody had ever attempted this difficult rock peak, and I just picked my way down the valley across the huge moraine that the Beetham Glacier carries down. It was a very long, hard journey over several moraines, but at last we commenced to climb up to the dry glacier to the west of Mount Nathan. I selected a well-protected spot for my companion to rest, so that he would be sheltered from the stones that fell from the precipices of Mount Chudleigh, under which he was sitting, with about 40 yards in between his shelter and the precipices.

Mr. Johnson agreed not to move from that

spot, and to watch me during the whole of the climb. I would have taken him with me if he had desired, but he was quite satisfied with the very long journey from the Malte Brun Hut, which had to be made at a good speed.

Leaving my companion, I cut steps up the hard dry glacier, first towards the Chudleigh precipices, then into the centre of the glacier to evade stones.

There is always an advantage when cutting amongst broken ice, as it protects you from falling stones if you have one or two wide crevasses between you and the stone-showering precipices. This is the case with Mount Nathan's huge apparently overhanging cliffs, and it forced me to the left or north-west ridge of the peak, although I could see that there was some very difficult climbing on that side, much more difficult than one other route which was dangerous on account of falling stones.

It is just as well to remember that a stone, falling 2,000 feet, is as deadly if it hits you on the body or head as the whole mountain-side falling on you, though it is only by theory one can arrive at this conclusion and not from actual experience.

The take-off from the glacier was awkward. Late in the season the ice was breaking up, and a huge schrund cut off the rock base of Mount Nathan, except in one or two places, which had to be crossed on splinters of hard snow and one frail bridge. Standing on this frail bridge the rocks had a slightly awkward dip and vertical. It gave me a struggle to get the first 20 feet, then the ledge covered with splinters of rock was still

dipping the wrong way; but by caution I worked my way up along the edge of smooth red slabs, very steep for this peculiar formation. In this way I managed to work gradually up to a shelf, from which I could see that there was not the slightest hope of climbing by the slabs on the north, and the only way to climb it was up a crack of about 1,000 feet, more formidable looking than the famous Mummery crack on the Grepon Chamonix. The glacier gave me some awkward step-cutting to get into the crack, and a wall to get up with hardly a handhold.

I could see it was a severe bit of rock-work, which only very slow climbing could surmount, and made up my mind from the start not to let time worry me. "Slow climbing unlocks the nearly impossible" is a good motto, and it is astonishing how used to an apparently hopeless situation one can become by dissecting and carefully examining the immediate problem that looks impossible.

The first 100 to 200 feet of the crack went up almost vertical, but after this it took a very awkward tilt upwards and outwards, falling slightly forwards and upwards from its base to the top ledges at an angle of about 30 degrees from left to right. If the crack had been a general fault like the Mummery crack, it would have been all right, and only a matter of muscular effort with small scanty handholds. In this case it was a mixture of the crack, chimney, slab, and awkward sloping ledges, all mixed up and sprinkled with loose stones fallen off the loose rock. I proceeded with all kinds of contortions, now with my legs

and arms spread-eagled, again my back on one side and feet on the other in the ordinary chimney-climbing style, then crawling forward round a narrow ledge and an out-jutting corner. All the time the awkward slope upwards troubled me. Most of these acute positions made me feel at any time I should fall out of the crack on to the glacier below.

I began to think that it was going to lock me in its grip, as to me sitting down wedged in the crack about half-way up the route seemed a puzzle. The climb down would have been impossible by the way I had come up, therefore it had to go. I felt I was in for some supreme moments before getting through with this self-imposed task, and there was nobody to reproach for giving me the wrong route. Nobody had ever attempted the mountain, it had been left to the last to be climbed from both sides of the Tasman Glacier. It was the first time a difficult virgin peak like this had been tackled by one man alone, so no route had been found, and the first climber may find an easy or a difficult route on the mountain. It is all a question of studying the strata and contour of the mountain. In this case the falling stones had driven me across to the hard side of the mountain, and the hardest and most difficult climb was justified to avoid the risk of falling stones.

It had often, in my climbing career, been in my mind that the impossible was before me, but never more forcibly than in one or two of the positions in which I found myself on this occasion; but it is surprising what one can do if forced to

it and not able to go back. Taking it slowly, and testing the handholds, made it easier, and I soon found that the crack ran into an overhanging wall, which, judging by the strata of the mountain, was nearing the summit. I climbed across the south-west face of the rock and came to the edge of a gully, from here I came to the divide, where the last 50 yards to the south of the summit was overhanging slightly. Luckily the rock was good, and handholds fairly good, and it seemed a good finish to a good climb. On the top of this overhang there was a smooth surface of rock as smooth as a tabletop, about 1 yard wide and 6 or 7 yards long, perfectly level. After surmounting this there was an exceptionally fine bit of rock-climbing necessary to get to the final summit. If this smooth face had been a few feet off the ground it would have been good enough, but poised on overhanging rocks at each side, it was as good a climb as any pinnacle on the Aiguille de Charmoz Ridge. Once on the top of this I came to the actual summit, with three pieces of rock making a triangle; each piece of rock rose about 2 to 3 feet. After building my cairn and placing the record of having made the first ascent alone, I rested to enjoy the view over the Murchison Glacier, which was very interesting. The day was perfect, and all the mountains looked very fresh with the sprinkle of snow on their heights. The summit of Mount Nathan is the most interesting that I have ever been on, and it was just like looking over a wall when standing on the summit.

After some cold tea and biscuits with cheese,

and a little jam (the usual summit lunch, unless one has a tin of pineapples), I commenced to think of getting down, and the summit being a good vantage-point to select a route, it seemed to me that the south-west face was the only route. It was abandoned by me on the ascent, but on the descent one moves much quicker, and in this case the upper snowfields were not iced. As I made my way down the edge of the couloir that divides the three peaks of Chudleigh from Mount Nathan, the huge bergschrund looked as though it would completely cut me off and prevent me getting off the rocks; but on coming nearer to it, by climbing round the edge of the base of the peak, I came to a part of the schrund black with stones and two sharp splinters of ice extending from the glacier to the base of the peak, which, after some careful balancing and step-cutting, led me on to the snowfield.

The good snow was very welcome, and enabled me to make very fast progress until I regained my steps cut in the morning. It was not a moment too soon, because the peak commenced to scatter a few stones down the south-west face, which gave me plenty of time to evade, although some of them cleared the first two crevasses before they vanished into the broken-up part of the glacier. My witness remarked about the speed I came down the mountain, he did not see the explanation.

Carefully I climbed down the dry glacier until I came where he was resting, and we were both very pleased to see each other. He said he saw me during the ascent up most of the crack, and

expected to see me fall on to the glacier at any moment. We enjoyed a little snack together, and without troubling to rope made our way homewards.

After climbing down off the glacier and on the edge of the ice just near where the loose stones commence to accumulate, the snow gave way under my feet, and instinctively throwing myself forward I saved a fall into a most peculiar shaped hole in the glacier about 13 feet deep, a circle 3 feet across, quite vertical. If one managed to get into a hole like that when travelling alone it would need a good deal of strategy and energy to get out of it. On my solitary climbing experiences, amongst my outfit is a knife with a special marling spike; it has been tested on ice, and one could rely upon getting steps chipped out of ice in case of emergency. My lucky star has been shining all the time during my climbs alone, and I have luckily not fallen into any crevasses. At the same time, one of the reasons why my kit includes plenty of extra clothing and extra thick gloves is, one doesn't know when the warm clothing may be necessary. A man could live a long time down a deep wide crevasse with plenty of warm clothing, whereas without sufficient clothing falling into a crevasse has one more risk, that of freezing to death.

We made very quick time down the narrow valley, up the moraine, and on up to the Malte Brun west arête, and although we rushed on as quickly as possible, it was 8.30 p.m. before we reached the Malte Brun Hut, fifteen and a half hours' very hard work; but the climbing of Mount

Nathan will always be remembered by me as one of the toughest problems of my many climbs alone.

On one occasion only had a good rock-climb been done by one man in New Zealand, that was the first ascent of Mount Malte Brun by the Guide Mr. T. C. Fyfe; but no other solitary climbing has been done in New Zealand. In this respect a new epoch of the amateur climbing alone was started here by myself.

Amongst about thirty solitary ascents of all grades, I have ascended Mount Sealy, the Footstool, the two peaks Anzacs, and Mount Nathan; in the two latter cases it was the first ascent.

On February 21st Johnson and I had a day's rock-climbing behind the Malte Brun Hut; this was the result of a talk we had about the climb of Mount Nathan. I explained to Johnson that rock-climbing was such a skilful thing that it almost became a science. During my explanations of the different angles, he was interested in the scanty footholds I could stand up in, but he understood it better when he saw how closely the clinkers were to the inside of my foot. My boots were made specially with a straight edge of the boot inside, so as to enable me to stand upright without the sole bending.

The Mount Cook rocks seemed to be improving when seen from the summit of Mount Nathan, so Johnson agreed to come with me for a nearer view from the rocks above the Haast Ridge.

We left the Malte Brun Hut on February 22nd at 5.20 a.m., and gained the foot of the Haast Ridge at 9.40. We rested twenty minutes at the

hut builders' camp at the foot of the Haast Ridge and commenced to climb the Haast Ridge at 10 a.m., reaching the hut at 11.50 a.m. We waited at the hut for a good look at the summit rocks until late the following morning, but from several view-points we could see the summit rocks were badly plastered, and had not improved during the last five days.

It would take at least ten days longer for those rocks to get into climbable condition, and my holidays had to come to a close within the next seven days.

The climbing of Mount Cook alone with only a limited holiday seemed to be more difficult than ever, therefore I was determined to take extra risk if necessary when I came down to the mountain in 1919. We took photos on the Haast Ridge, including me doing a double balancing act with my ice-axe. We descended to the Ball Hut by 1.20 p.m., and from there had a leisurely walk to the Hermitage in doubtful weather.

The weather broke on February 24th, and I left the Hermitage on the 25th of February.

The numerous attempts on Mount Cook alone were losing me a good many new climbs, but the effort was worth it, as many of the Hermitage district mountains had been climbed by me more than once, and were losing their charm.

CHAPTER VII

ATTEMPTS ON MOUNT COOK ALONE

Rivalry amongst Guides—Hazardous feats belittle Mount Cook—

My first attempt, Hooker side—Bad weather—My second attempt, Hooker side—200 to 300 feet from the summit—Third attempt, Tasman side—Broken Linda Glacier—Weather broken—Storm-bound—First ascent Mount Anzacs alone—Crossing snow-covered crevasses—Glorious night—Return to Hermitage—My fourth attempt, Mount Cook, Hooker side—Driven back by snowstorm—My fifth attempt, Tasman side—Risky ice-work amongst rotten séracs—Return Mount Hermitage—To Malte Brun alone—Climbs Mount Aiguille Range alone—New route—Hand traverse—An awkward corner—Return to Hermitage—Delayed by slight accident—My sixth attempt—Cut up snow wall—Linda Glacier badly broken—Falling stones—Near shave—Piece of rock missed my head—Rock goes from under my feet—A narrow escape—500 feet from the summit—Witnesses' statement—Renewed confidence under difficulties—I climb Footstool alone—Graham brings my handkerchief from summit—My seventh attempt, Hooker side—My eighth attempt, Hooker side—Jim Stout snow-blind—Nearly burnt out—Climb abandoned—Precarious descent of the glacier to Hermitage—Tantalizing weather—Return to Hermitage.

It was the magnificence and grandeur of Mount Cook, as seen from the summit of Mount Sealy in 1912, that inspired me with the hope of its solitary conquest by myself, unaided, and my intimation to Peter Graham, Chief Guide, of this ambition, brought forth his warning against attempting this exceptional, dangerous, and hazardous feat. A day or two afterwards he intimated that unless I gave him a letter clearing him of all blame in

case anything happened to me, he would have to report it to the Government, with a view to preventing me from attempting the climb. I gave him the letter to clear him in the matter, and this episode made me feel more determined to climb Mount Cook alone.

In 1911 some of the leading newspapers in the world gave encouraging reviews on my second work, *My Climbing Adventures in Four Continents*. So I was determined to live up to the world's newspapers' belief in me, and not allow any climbers (Guide or amateur) to belittle my reputation from that standpoint.

MY FIRST ATTEMPT.

The old climber, T. C. Fyfe, was engaged at the Hermitage as Guide in 1915; he and R. Young were going up to the Hooker Bivouac on March 16th to bring down the sleeping-bags and tent which had been left up there. Fyfe, like a good sport, asked me if I would like to have an attempt on Mount Cook alone; if so, they would witness my climb. I swagged my own equipment and preceded them to the Hooker Hut, and rested the night there. Next morning, March 17th, at 4.30 a.m., we went up the Hooker valley, climbed the Pudding Rock, and I led up and across the Hooker Glacier in doubtful weather. On arrival at the Hooker Bivouac (8,000 feet) the weather grew worse; rain followed by snow made my attempt on Mount Cook alone, or any other high ascent, impossible. We made ourselves as comfortable as possible, and left the bivouac for the

Hermitage on the 18th in bad weather. We did not climb the usual way down the bluff of rock, but climbed across the gully, and on to that part of the bluff of rocks nearest to the Hermitage. Here R. Young got on to a very smooth face of rock with hardly a hand or foothold, and with water trickling down its face. Seeing his predicament, I had just sufficient time to climb down and under him when he had to let go, and I pulled him on to the ledge, feeling very pleased that I had in the absence of any signal from him anticipated his predicament correctly. He would have fallen several hundred feet on to the glacier below ; as it was, he lived to do good service in the greatest of all wars, and came back Captain R. Young, although, unfortunately, having been in the thick of the battle, he is no longer able to climb, although I know he will have his precious memories of the past and the picture gallery of the mind formed by his good achievements in the alps. We descended to the Hermitage the same day by 4.30 p.m.

MY SECOND ATTEMPT.

It was the following year, 1916, that I decided upon taking a witness to see me climb Mount Cook alone. I left Wellington January 27th, and arrived at the Hermitage January 29th. Having wired for a porter before leaving Wellington, I intended to start immediately the coach arrived, but owing to a slight misunderstanding with F. Milne, whom Peter Graham, the Chief Guide, had given me for the occasion, we only left the Hermitage at 8.40 p.m. on January 29th ; we arrived

at the Hooker Hut at 11 p.m. Mrs. Thomson and Conrad Kain were in the hut on their way to attempt Mount Cook. We had a brief rest, leaving again at 4.30, January 30th, for the Hooker Bivouac in doubtful weather. I led all the way, and carried a heavy swag, as this was the recognized way to make a solitary climb as indicated by the Chief Guide, and he is something of an autocrat in these matters. I reached the Hooker Bivouac in five hours, having had lunch on the Pudding Rock, half-way up the Hooker Glacier. Here I may say that this rock was named by me, because it is the shape of half a Christmas pudding. Conrad Kain and Mrs. Thomson came up to the bivouac some time after us, and I shouted to them that we had the tea ready. It was the first time I had seen two alpine tents on this bivouac. The bivouac is an isolated head of rock, protruding from the centre of the glacier about 10 square yards. The only shelter is a few pieces of rock which one piles round the tent.

After tea I held a consultation with Conrad Kain, and we decided that Earl's route (that is, the rock-ridge) was covered with too much snow and ice, and that it was impossible. Conrad Kain and Mrs. Thomson decided to abandon the climb by that route and take on the traverse of the three peaks, and they invited Milne and me to join them. Milne, however, refused, because his instructions from the Chief Guide were to watch me climb Mount Cook alone. This made me decide to make the attempt of the ice-covered route (Earl's route), if only to gain experience. I left the bivouac at 4 p.m. to kick steps to the head of

the Hooker Glacier and up the couloir. The snow was badly broken, and every care had to be exercised as the snow was soft. I managed to get across the two bergschrunds after a little trouble and on up the couloir on to the ridge. This was all that could be done that day, so I returned to the bivouac, and after tea that evening we lit a flare which they saw at the Hermitage. I was up at 1.30, and Milne warned me about the ice-glazed rocks and climbing alone. I left at 3.30 a.m., quickly climbing to the first break, where I lost my candle, and this made the climbing of these two breaks very difficult and slow. I then climbed the couloir, and up steep rocks, making my first mistake in climbing up the steep rocks instead of the snow-slope. Once on the ridge dividing the Hooker from the Empress Glacier, I kept to the ridge on the left of the Empress Glacier, sometimes climbing on the crest of the ridge and at other times with my back to the glacier; occasionally loose rocks in the hard snow made bad going, and the ridges of hard snow caused a good deal of step-cutting, and hour after hour went by. The deep couloir on my right was alive with falling stones, and when at an altitude of 10,000 feet a huge burst of rock took place from under the summit of the middle peak. It spread across the face of the mountain; and as big pieces of rock fell and struck the precipices, hundreds of pieces turned into thousands of smaller pieces, some of which came too near to be pleasant over the top of my head, while I crouched behind the first convenient piece of rock.

I saw Mrs. Thomson and Conrad Kain making

good time towards the third peak of Mount Cook, and they had splendid conditions of snow and had struck it lucky, which is very rare. I plodded on until one o'clock, when a dense fog and thaw came over the slopes where I was climbing, which changed the conditions; and although it became more risky to climb in that condition I pushed on and reached the last snow leading to the rock face, on the top of which is the ice-cap of Mount Cook's summit. Conrad Kain agreed that I was about 200 to 300 feet from the summit; we kept in touch with one another by mountain calls.

I had just a few yards to walk to the summit rocks, but they were very much plastered with ice too thick to cut off, so decided to turn at once rather than be benighted. In between the fog it was a grand view over the summit of La Perouse, and I managed to take a photo of the summit ridge of La Perouse, looking down on the west coast.

Making good time down the ridge, everything was going well, when I took the wrong rocky spur, and lost about two hours, having climbed down about 300 feet and climbed back. Another pause came, when I was not sure about the couloir up which I had come; at last climbing down the one that seemed to be right, and so it turned out. While climbing over the bergschrund a sound like falling rock made me jump about 20 feet down into the bergschrund, and just escaped being wiped out by the stones that flew over the schrund and hit the lip of it. The only mark I had to show for my narrow escape was the end of my nose skinned from being too anxious to hide my head under the upper lip of the bergschrund.

Climbing out of the bergschrund, I made my way across the snow to the second bergschrund as quickly as possible, as it was foggy, which brought on early darkness. Climbing across a wall of rocks on the second bergschrund in the dark, rocks went from under my feet, and I was compelled to strike matches to see where to put my feet, and this exhausted most of my matches. I saved one or two to light me across the broken part of the glacier lower down the slope. After using all my matches, I called to Milne, and he brought a lantern to help me over the last badly broken part near the bivouac. I arrived back at camp at 11 p.m., after twenty and a half hours' climbing. This was a strenuous effort, seeing that I stepped off the motor car at the Hermitage, and next day took advantage of the good weather. We made the pace back to the Hermitage in quick time, leaving the Hooker Bivouac at 10.10 a.m.; we reached the Pudding Rock in one hour and ten minutes, including ten minutes for photos; then, after half an hour's rest, we got to the Hooker Hut at 1.40, just three and a half hours from the bivouac; we rested until 4 p.m. at the hut, and reached the Hermitage in two hours and ten minutes at 6.10 p.m. At the Hooker Hut I heard of an accident to Miss Marsden, who had fallen off the ridge whilst climbing up the Copeland Pass. We left the following day with a stretcher party to carry Miss Marsden down from the Hooker Hut to the Hermitage. There had been quite a lot of minor accidents amongst the alps and some wonderful escapes.

In the year 1917 I made up my mind to devote

all that year's holiday to climbing Mount Cook alone, and arrived at the Hermitage on January 23rd. On January 24th I climbed Sebastopol in two hours fifteen minutes for training, and on January 25th walked to Muller Hut and back over the Sealy Range.

Some people underestimate the difficulty of climbing Mount Cook; this is because several ladies have reached the summit, with in most cases two Guides, or two Guides and an amateur. Any one of these climbs might be the result of the Chief Guide and all the Guides and porters watching Mount Cook all the season to get the conditions; and there have probably been fifty ladies waiting for years to climb Mount Cook.

Extracts from my diary will interest all climbers, and may interest the general reader, because they show that I tackled the mountain first on one side and then the other, hoping to get the conditions. One of the most difficult things I was up against was the difficulty of finding out when the mountain was in good condition. Another thing was to adopt the best tactics so as not to miss the chance, hence my laying siege to the mountain as indicated in my diary.

MY THIRD ATTEMPT.

On January 26, 1917, I left to see if Mount Cook were climbable, or stay there long enough to get a chance to climb it if the weather showed any signs of improving. I reached the Ball Hut at 8 p.m., having left the Hermitage at 4.30 p.m. On January 27th I left Ball Hut with Stewart,

a porter, who was given me by the Chief Guide as a witness, at 4.30 a.m., and reached the Haast Ridge at 9.10 a.m. After lunch I kicked steps over the Glacier Dome and across the plateau to the Silberhorn corner; left at 12 noon and got back at 6 p.m. On January 28th a north-west gale blew all day, and made the snow a little better. I went out and re-kicked steps up most of the dome, and retired to rest at 9 p.m., to get up at 12.45 to attempt Mount Cook. Snow conditions bad, weather doubtful. January 29th, thirteen hours on the Linda Glacier; went near the Anzac Peak, reached the divide on the ridge; snow in very bad condition on Mount Cook and the Linda Glacier; many avalanches falling—not safe to climb alone. Left Haast Hut January 30th, started down the ridge for the other side of Mount Cook, but met Stewart and Stout with a tourist, and heard that the Chief Guide and party were coming up the Haast Ridge to attempt Mount Cook; so I knew that the Hooker side was also in bad condition, because that side being easier the party would not attempt Mount Cook from the Haast Ridge side if the Hooker side was possible. I therefore decided to return to the hut to wait for better conditions. January 31st at Haast Hut; raining most of the day. In the afternoon, while Graham and party were on the dome looking at Mount Cook, I climbed to the dome from the Haast Hut in thirty minutes, which was considered a record. I left the hut at 6.10, and was back again at 7.15, having had a chat with Peter Graham. I found the snow was improving, but Peter Graham and party abandoned their attempt.

February 1st raining all morning; left Haast Hut at 11.15 a.m., and reached Silberhorn corner at 12.45; kicked steps up the Linda Glacier until 2.45 p.m., as a preliminary to climbing Mount Cook next day, and returned to the Haast Ridge Hut at 4.7 same afternoon. February 2nd, at Haast Hut; rained all day. The party and I had consumed all the food in the hut, and it was with difficulty that I had more food brought up, so as to enable me to remain for better weather. February 3rd, raining all day. Young and Stewart pluckily went down in heavy rain and brought provisions up. It was a very good performance, and this is an example of the very long journeys taken on without more than a few minutes' talk. These two men practically covered 45 miles, which included two descents and one ascent of this Haast Ridge, with only a few hours' rest in between, and they each brought back about 45 lb. of a swag, and in heavy rain all the time. February 4th, a lull in the weather, but all high mountains badly plastered with snow. Climbing of Mount Cook must be postponed for another ten days at least. Will wait and climb the twin peaks which Stewart and I got to within 150 to 200 feet of the summit of on the 29th of January, without knowing they had not been climbed until we got back to the hut; then, to give Mount Cook a chance of clearing the snow off the summit rocks if suitable weather comes along, will try Mount Cook from Hooker side alone, and if that is in bad condition will come back to the Haast Hut and wait here for Mount Cook. February 5th, nearly snowed in. It snowed all February 4th and all night; it was

knee-deep, and the spade being buried, I shovelled the snow over the parapet with the frying pan; later in the day I kicked steps a little way up the dome. If the weather is good, I will go and climb the unclimbed peaks near the buttress of Mount Cook. This ended a lonely but enjoyable day. February 6th, weather bad, snowing; at 4.20 cleared; at 6.20 started for plateau; over the dome at 8.15 a.m. to climb buttress of Mount Cook; deep soft snow covered all crevasses and made it difficult walking across the plateau, but by patient plodding I climbed the twin peaks which point from the Tasman Glacier to Mount Cook from east to west, a good rock and snow climb; returned at 7.45, after a lonely day. It was a perfect picture of a night. The most lovely afterglow and moon-rise; at one stage the sunset and moonlight were so used by the glaciers and snow-covered peaks as to make one melt into the other, and "night kissed the day in some of rugged nature's most serenely peaceful moments." The day had been complete, I having reached the summit of both peaks, and left a cairn on the top of each with my name in. I decided to call those peaks "Anzacs," the highest being 8,472 feet, and the second peak a few feet less. February 7th, no provisions except tinned goods, hard biscuits, no bacon or eggs, very little bread and biscuits. I had been here fourteen days. Mount Cook will not be ready for another fourteen days at least, owing to cold wind freezing the fresh fallen snow on the summit rocks (to get the summit rocks in good condition is the key to the climbing of Mount Cook from the Linda Glacier side). February 8th,

had lunch at the Haast Hut ; left at one o'clock and went through to the Hermitage by eight o'clock. February 9th to 11th, at the Hermitage in bad weather.

MY FOURTH ATTEMPT.

February 12th, went to Hooker Hut to commence another attempt of Mount Cook alone ; J. Lipp my witness. February 13th, left Hooker Hut at 5 a.m., reached Pudding Rock by 7 a.m. in a snow-storm ; returned to Hooker Hut and rested the day. February 14th, left at 4 a.m., Pudding Rock ice-glazed in places ; this made us climb it carefully. The Hooker Glacier very badly broken, soft deep snow covered the crevasses knee-deep, big break nearly cut off the bivouac rocks. Very cold night at bivouac. February 15th, very cold and windy. All the rocks of Mount Cook were badly plastered and climbing impossible, so we descended to the Hermitage the same night with very heavy swags. February 16th, rested at Hermitage in bad weather. February 17th, rested at Hermitage in bad weather. February 18th, to keep in form left for Mount Footstool alone ; got wet through in heavy rain ; waited at bivouac until the afternoon ; no hope of it clearing for the climb the following morning, so returned to the Hermitage.

MY FIFTH ATTEMPT.

February 19th, started for another attempt on Mount Cook from the Tasman Glacier side. D. Young was to follow me on. February 20th, went from Ball Hut to the Haast Ridge Bivouac. After

lunch kicked and cut steps ; left the Haast Hut at 9.45 a.m., and returned at 7 p.m. February 21st, rested all day. February 22nd, kicked steps up Linda Glacier from nine o'clock to six in the evening. Owing to badly broken ice and over-hanging blocks of ice, and one particularly threatening piece, D. Young refused to proceed. I photographed him, went on past the place he objected to, and, as the glacier got no better, I returned with Young to the Haast Ridge Hut. We found a big sérac had fallen across my steps of the previous day. I heard a sérac fall when I had just passed it the previous day, so was not surprised in finding it across my track. In one place I paused to probe for a hole, and Young said it was all right ; I struck it with my ice-axe and revealed a hole, which surprised Young. February 23rd, left the Haast Ridge Hut alone, and reached the Mount Malte Brun Hut in five hours. This was an unusual trip, not often taken that way. February 24th, climbed Mount Aiguille Rouge alone by a new route, starting at 5 a.m., and returning at 6 p.m. February 26th, returned to the Hermitage from Malte Brun Hut ; started 8.20 a.m., reached Hermitage 8 p.m. ; broken glacier delayed my progress. This solitary climb and glacier traverse was interesting. February 27th, left the Hermitage for home.

The bare contents of my diary will give some idea of the way that two or three months can be spent without result owing to the bad condition of the snow, the bad condition of the high alps, and the bad weather ; either one of these three causes prevent climbing, and one cannot easily

get to know what the conditions are without starting off for the climb.

I arranged to go to the Hermitage on the 1918 season with a young fellow used to climbing the Tararua hills (about 6,000 to 7,000 feet) north of Wellington. We had some rock-climbing practice on the seacoast, and we ascended Mount Egmont in winter together, and he went in for a special course of training. Unfortunately, I met with an accident. I had been doing a lot of skipping, and the last month before leaving for the alps I took to skipping as many as a thousand skips without stopping in my $5\frac{1}{2}$ -lb. mountaineering boots. I also played tennis in these boots, and used to walk around the golf links with my mountain boots on. I had covered two rounds, in an average of 75, in two hours and forty minutes, for the two rounds bogey 74 for the course, and after this went out to try and beat this time; but in hurrying over rough ground twisted my knee and received on the golf links the worst injury of all my athletic efforts, mountaineering included. This twisted knee laid me on one side for three weeks, and delayed me another five weeks, in order to get into form again. My friend kindly waited for me, and we left for the Hermitage, from Wellington, on January 17th, where we arrived on January 19th. We left for the Ball Hut the following day, and slept there the night.

MY SIXTH ATTEMPT.

January 21st, we left the Ball Hut and climbed to the Haast Ridge Hut before lunch. After lunch

I wanted to go and kick steps myself for the climb of Mount Cook the following day, but Mr. Vosseller said he would come with me, although I advised him to rest to be ready for the climb on the morrow. We went over the dome, down across the plateau, kicking steps in soft snow, and Mr. Vosseller rested at the Silberhorn corner, while I proceeded up the Linda Glacier. On my return I met Mr. Vosseller coming after me, and we returned up the dome together. On the way up he remarked that he had not trained the right muscles. We arrived back at the hut in time for tea, and Jim Stout, who had joined us, soon had tea ready. We retired to rest early, but about midnight, hearing that someone was restless, I came out of the room I was in and saw Mr. Vosseller sitting on the bunk, and asked him what was the matter, and he said his legs were aching, and suggested I should climb Mount Cook alone, to which I agreed, although it was not my intention to do so at all that year in face of the accident to my knee. I arose and left the Hut at 1.45 a.m. to climb Mount Cook alone, Jim Stout, the porter, and Mr. Vosseller agreeing to witness my climb from the top of the Glacier Dome. I made fairly good time over the steps I had kicked and up the Linda Glacier some distance, but came to a fall in the glacier, which made it necessary for me to cut up a steep vertical wall of hard snow fully 20 feet up, which took me over two hours' constant cutting, and the snow wetted me through.

It was necessary to cut quite a tunnel to get my body in before I could commence cutting steps. Near the top of the steps one of them

gave way and wrenched my knee, which made me rest a few minutes. This two hours' delay gave the sun time to get up, and I was in for a boiling hot time, plodding up the glacier. About half-way up a fair-sized stone dropped from a height, and landed about two yards from where I was just crossing a crevasse. It was a fairly rough trip, with poor conditions of snow, but by sticking to it I forced my way up on to the ridge and into the summit rocks. At 1.20 p.m. my witnesses state they saw me cutting steps quickly. I tested a piece of rock about as big as a benzine case, which broke away and dropped several thousand feet down the face in big bounds. Luckily, I just managed to scramble quickly up to the next ledge before the shifting rocks were further helped by my weight. This was a narrow escape, and it gave my knee a serious twist. The previous day, climbing the Haast Ridge, I had worn an elastic bandage, an elastic stocking, and a knee-pad, but they prevented me striding long enough. On this day I had discarded the knee-pad or grip, and felt in a difficult position, as the knee felt bad. I pushed on and reached a height of 11,700 feet, but owing to the delay at the bottom of the glacier the hour was getting late, and it would be impossible to reach the summit that night; so I decided to descend, and after various little episodes, reached the Haast Ridge Hut at 9.50 p.m. Messrs. Vosseller and Stout had been on the dome and had seen me climbing across the snow on the ridge just near the summit rocks, and they last saw me go into the summit rocks at a height of about 11,500 feet. Mr. Vosseller said he thought

I had gone into the summit rocks to sleep for the night, and he immediately left the dome and descended to the hut, therefore if I had gone on to the summit the climb would have been unwitnessed.

This climb under difficulties made me realize that, given a good chance at the mountain with the glacier in fair condition, I had the ability and skill to climb it alone, and on descending this time and leaving the last 500 feet unclimbed, I argued that Mount Cook would be there when I came back again, and that it would not get bigger. We rested the following day, Wednesday, January 23rd, and Mr. Vosseller, being anxious to get away, I agreed to leave with him after breakfast the following day, and reached the Hermitage at 11.50 p.m. the same night. January 25th, I rested at the Hermitage all day. January 26th, I took an easy stroll up Sebastopol, from 5 to 8.15 a.m., and rested the remainder of the day. January 27th, walked to the Blue Lake on the Mount Sealy Range to see what Mount Cook looked like.

MY SEVENTH ATTEMPT.

January 28th, Jim Stout and I (Stout being witness) left for the Hooker Hut. I intended to make another attempt to climb Mount Cook alone. January 29th, left Hooker Hut for the Mount Cook Bivouac, in bad weather, and was driven back by the rain. January 30th, rested in the Hooker Hut in bad weather. A fresh fall of snow on the high alps made Mount Cook out of the

question, but I became desperate and determined to climb something, so left the Hooker Hut for the Stocking Glacier Hut, and after lunch kicked and cut steps up over the head of the Stocking Glacier for the climb the following day of the Footstool. February 1st, left at 5 a.m. to climb the Footstool (9,050 feet) alone; this feat had never been attempted by one man, and one climber who had made the traverse of the three peaks of Mount Cook had stated the Footstool was a more difficult climb; so this appealed to me, more especially because, with 18 inches of fresh snow on the rock-ridge one has to cross over, it was much more difficult. The rocks underneath the snow were very loose. After nine hours' careful climbing I reached the summit of the Footstool at 2 p.m., and left my handkerchief in the summit rocks. On my return I lost two hours in getting off the ridge on to the head of the Stocking Glacier, and had a very difficult bit of loose rock to climb down which caused me some trouble. I arrived back at the hut at 7 p.m., and got back at the Hermitage by 11 a.m. next morning. Jim Stout had not seen me on the summit, and as a party was organized to climb the Footstool immediately, when the party had set out definitely, I called to Peter Graham and asked him if he would bring my handkerchief out of the summit rocks, where he would find it wedged in by a stone. He brought the handkerchief down and handed it to me three days after. The summit of the Footstool is so very small and sharp that there was no chance of them missing the handkerchief. It took me all my time to stand upright on the actual top

of the Footstool, and I don't think anyone else has actually stood on the topmost tip, which is a good balancing feat even if near the floor; but with 3,000 feet of a drop sheer down one needs keenness as well as balance. This climb kept me in the humour for the conquest of Mount Cook, and in its way was quite unique. February 3rd, I was at the Hermitage making arrangements for another attempt on Mount Cook by the Hooker side.

MY EIGHTH ATTEMPT.

February 4th, left for the Hooker, very determined to climb Mount Cook if the weather was fine, but bad weather came on and lasted for three days, during which time I waited at the hut, in sheer determination to get a good start if the weather cleared. We came back to the Hermitage on the fourth day by 8 a.m. for food, and went back the same night; but the weather continued to be bad, also the following day (February 9th), so that day we returned to the Hermitage. The next day was good, and we left for the Hooker Hut. The following day, February 11th, Jim Stout and I climbed to the Hooker Bivouac from the Hooker Hut from 4.10 a.m. unto ten o'clock. The glacier was shockingly broken up, so much so that Jim Stout kept his snow-glasses off most of the time. We made the bivouac as comfortable as possible, and I went and kicked steps for the climb on the following day. The weather was boisterous. I arrived back at 6.20, and Jim Stout complained about his eyes. We settled down in our sleeping-bags to rest about 8 p.m., and about

two hours afterwards Jim Stout commenced to feel the pain in his eyes. I had previously had snow-blindness myself, so could sympathize with him. Snow-blindness down below off the mountain is bad enough, but snow-blindness up at the head of the very badly broken glacier was desperate. I sat up most of the night bathing his eyes with tea-leaf poultices, which were tied round his head ; then we would doze off until the leaves became dry, and he would get the bad pains in his eyes once more. I had to keep the light going all the night to give him attention from time to time, and on one occasion Jim called me hurriedly, because the candle had fallen out of the lantern, and had set the eiderdown sleeping-bag on fire. I just managed to roll over and smother it in time, or we should have been burnt out, if nothing worse. At 2 a.m. a very severe gale was blowing, and we could not get any sleep, so I started out to see what the mountain was like ; but the drift-snow was too severe, and the high rocks looked plastered with ice. I would have waited for the following day, but Peter Graham said he was bringing someone up to attempt Mount Cook two days after us, and that he would want the tent and sleeping-bags, but for this it would have suited me better to nurse Jim another day. I left the bivouac with Jim Stout at 1.20 p.m., and after very great care in cutting steps in the very best places to help him down (as he was nearly blind), we arrived at the Hooker Hut at 7.30 p.m. February 13th, we returned to the Hermitage by 8.30 a.m. in bad weather. This bad weather continued from the 13th to the 17th of February, and on the

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18th, Jim Stout (who had recovered from his snow-blindness), two tourists, and myself left the Hermitage for the Ball Hut. In order to give Mount Cook time to get into good condition, it was my intention to climb Mount Nathan (9,200 feet), which had never been previously attempted by anyone. We slept at the Ball Hut the first night, and the Malte Brun Hut the second night, having left the Ball Hut at 5 a.m., and arriving at the Malte Brun Hut at 10 a.m. Jim Stout and one of the tourists returned to the Hermitage, while Mr. Johnson and myself went on to Mount Nathan at 5.15 a.m., returning at 8.15 p.m. (the details of this climb have been given elsewhere in this book). The following day, February 21st, we rested at the Malte Brun Hut and did some practice rock-climbing. February 22nd, Mr. Johnson and I left the hut at 5.20 a.m., and arrived at the foot of the Haast Ridge at 9.40. We left the hut used by the hut-builders at the bottom of the ridge at 10 a.m., and arrived at the Haast Ridge Hut at 11.50 a.m. It was my intention to get a near view of Mount Cook, but we could see that the summit rocks were ice-glazed, and there had been no change for five days. February 23rd, we climbed up to the rocks above the hut and returned to the Ball Hut by 1.20 a.m. Walked down to the Hermitage. I met Graham on the way coming up to the Ball Hut. We took our time over this journey, taking from 4.30 to 10 p.m. February 24th, we stayed at the Hermitage in bad weather. February 25th, left the Hermitage in bad weather for home.

This concludes the attempts on Mount Cook

alone, and the next chapter deals with the final conquest. It will be seen that I have had a lot of running about from one side of the mountain to the other. This was to find out which side was climbable. Up to the end of 1918 I really had only two serious attempts on Mount Cook alone, although several other starts for Mount Cook might be called attempts, and I have counted them as such.

CHAPTER VIII

THE FIRST CONQUEST OF MOUNT COOK (ALONE)

Preliminary expedition Ben Ohan district—Ascent of an unclimbed peak—Heavy snow—Return to Wellington—Haast Ridge—Hut buried in snow—Climbing Minarets—Summit of the Minarets—Malte Brun Hut—Return to Hermitage—Leave Hermitage day after arrival—Haast Ridge with heavy swag—Darby Thomson's opinion—Linda route most difficult—Overhanging ice—Glacier badly broken—Rested on ledge—Falling stones—Risky day—Threatening weather—Ice conditions—Returned to hut—Rested twenty-six hours—No sleep—Started midnight—Startled by crevasse—Leave photo summit rocks—Melted snow—Bad thaw—Beady ice—I plant my flag on the summit—Too late on summit—Perilous descent—Refreshments on dome—Haast Hut—Mount Cook certificate.

IN order to get into very good form this season I organized an expedition to the Ben Ohau district in October, consisting of Williams and myself. We motored from Christchurch, through Pukaka, and round the Lake Ben Ohau to Mr. Wiggley's station, where we were most kindly received, and managed to get the loan of a trap to take our belongings from Wiggley's station to half-way up the Dobson Valley. We swagged our equipment the second half of the journey, and camped at an old deer-stalker's camp not far from the head of the valley on the right-hand side of the mountain river. We found the mountains in very bad condition, deeply snow-covered, and were snowed up on two occasions, but managed to climb an unclimbed peak about 8,000 feet, not far to the

south-east of our camp. We went through a thick clump of trees, many of which had been felled by some terrific wind, and very big trees lay about in endless confusion.

After reaching the head of a stream, we climbed our peak in soft snow, and had to climb a difficult rock face to reach its summit. During the climbing Williams left his ice-axe on the ledge below, and it gave me a good climb to get it for him.

From our summit we saw the whole of the Ritter Range, with Mount Hopkins at the head of the valley.

There seems to be a high pass from the Dobson to the Hopkins Valley. Three fine deer raced ahead of us up to the high snowfields, and standing on the edge of a precipice looked over the edge at us during our ascent. The climb was not a very high one, and not the highest on that range, but it was nearly of first-class difficulty. The way we climbed it took us about fourteen hours, and we were quite satisfied with the day's work. We had another fairly good day after that, and explored the head of the Dobson Valley, intending to make a new pass, but bad weather again prevented any useful work.

During our camp I was very ill owing to poisoning myself with food, but the expedition would have been a failure, owing to heavy mountain snow, even if my health had been all right. After three weeks away from Christchurch, we returned, to find the influenza epidemic had broken out.

In order to see what Mount Cook was like, I left Wellington December 12, 1918, for the Hermitage. With D. Young, we left the Hermitage and

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slept at the Ball Hut the evening of the 12th. We started to the Haast Ridge Hut early on the 13th in company with Peter Graham and Miss Thoeman.

The Haast Ridge was quite a decent snow-climb, with an occasional cornice on the ridge. We made a moderate journey of it, and arrived at the hut towards noon; but to our surprise the hut was covered with snow, and we had to dig a hole in the snow to get down in order to open the door. We found that the winter snow had crushed the hut and broken some of the framework and the windows. The hut was very strongly built, but the wear and tear of the winter snow made light of the woodwork. We only remained for lunch and a good look at Mount Cook.

Graham and I went up above the hut and had a very good look at Mount Cook, which looked a long way off and thickly covered with snow, much heavier than in any year I had ever seen it. Young and I descended the Haast Ridge, and continued on to the Malte Brun Hut, which we reached before nightfall.

During the evening J. Lipp, Mr. McKenzie, and Miss E. Marshall, a party we met at the hut, asked if we would join and make two parties to climb the Minarets, 10,058 feet above sea-level. We agreed, and started early on the morning of the 16th; there was a little too much snow on the mountain to be pleasant.

The Minarets is only a second-rate climb in good snow conditions, although in broken ice conditions late in the season it is difficult. We managed to reach the Malte Brun Hut before dark.

The day had been ideal for climbing, and it was one of the most enjoyable so far as the weather was concerned that one could imagine. We returned to the Hermitage the following day, and I spent Christmas at home, intending to pay the Hermitage a visit again for the purpose of attempting Mount Cook alone when the weather conditions were good.

The open opposition to my solitary conquest of Mount Cook was by this time becoming very severe, not only did I find quite a lot of people at the Hermitage asking me "Didn't I consider my wife and family?" but the Guides were openly ridiculing my attempt, and no doubt most of the tourists had pictures drawn of me as having no possible chance or hope of climbing Mount Cook alone.

Before leaving the Hermitage I had made special arrangements with the General Manager, Mr. Hoff, to wire me if Mount Cook seemed to be climbable.

The siege of Mount Cook had been tried, but the long wait for good weather made that system too wasteful of valuable time, so my idea was to try and get the conditions wired to me and keep myself in such good condition that I could tackle the peak immediately the coach arrived at the Hermitage.

Having ascended the highest mountain in Europe (Mount Blanc) in 1898, as my first ascent, and made over one hundred ascents since then in different parts of the world, it was the most natural thing for me to aspire to the summit of Mount Cook, the highest in New Zealand (alone), and, although I encountered opposition from the com-

mencement and very bad conditions of weather for several years of attempts, I returned to the mountain each year, and sometimes twice in the same year, with the one burning desire to climb to the summit of Mount Cook alone.

If you can understand the satisfying feeling of the conquest of Mount Cook or any other formidable geological obstacle on this globe when a man accomplishes it alone, as compared with the conquest with the aid of companions, you will say the intensification of life far outweighs the personal risk. Every new conquest of nature by men advances mankind along the line of progress. This is surely made speedier by solitary conquests, which inspire individual and collective confidence. Twenty-four years' mountain exploration and climbing have made me exhaust nearly all the pleasures of the climbing craft except solitary climbing. The virgin peaks climbed by me alone, and many other solitary climbs, are the outstanding features of all kinds of ascents of various degrees of difficulty on this globe during my climbing career.

Let me emphasize here that the reason I go seriously into climbing is because for ten months in the year I use myself unsparingly by putting every ounce of brain and energy into business, and I could not succeed if I did not get a good holiday, including a strenuous, all-absorbing recreation. I therefore take up climbing in a serious manner; no amount of expense is too much for the equipment, etc., for the Alps, and no training, however severe, is neglected all the year round. It is for progress in life that the climbing craft

has made itself dear to me, and not only for climbing in itself. Climbing keeps one young and fit for anything, and has given one business prosperity, and I recommend it to others on this account.

In the Mount Cook climb alone I took such a big flag that the official witness (Guide Cowling) and a private individual witness saw me on the summit plant my flag, and six people saw the flag on the summit of Mount Cook from the Memorial Hut on the Haast Ridge. The attempts to make this solitary climb cost me about six months in time in attempts spread over seven years (chiefly caused by the unreliable weather). It also cost me special consistent training for several years of the most severe and systematic kind, in addition to a big outlay of money and the extra risk (as compared with climbing with others).

Usually one must be a good mountaineer, and have a month's climbing beforehand before attempting Mount Cook (with two Guides), because it is a very big mountain; particularly in bad weather or bad ice conditions, and even in the most excellent conditions, a party of men are at the mercy of the mountain.

My climb was started the day after my arrival at the Hermitage (the base hotel) first week in March 1919, the first 16 miles to the Ball Hut the first day. The second day I climbed up to the Haast Ridge Hut. I led the way, followed by my witness, E. Williams. We both had heavy swags. The hut was built partly with private and partly Government money, in memory of Mr. S. L. King, A.C., with Guides Darby Thomson

and J. Richmond, who, as stated previously, were lost in a big avalanche on February 22, 1914. My Guide, Darby Thomson, the season before this catastrophe, had expressed his belief that I could climb Mount Cook alone, and as this route (the Linda Glacier route) had proved his last climb, I made most of my attempts by this route, particularly so after the accident.

Another charm about this Linda Glacier route was the fact that the Rev. W. S. Green, with the famous Swiss Guides Boss and Kaufmann, had made a very creditable attempt to climb Mount Cook in 1882, and most New Zealand climbers (in New Zealand Alpine Club phraseology) "have come, seen, tried, and have been conquered by Mount Cook," chiefly by this route, until about six years ago, when my party decided to climb it by the same route. A party, consisting of Messrs. Chambers and Wright, with Guides Murphy and Clarke, climbed it two days before us, and I have never to this day been able to understand how this coincidence came about, as we had been four days away from the Hermitage before this party climbed, and we had the intention of climbing Mount Cook before we returned. We were the second party to climb by that route, which had baffled all previous parties until two days previously. This climb, and several climbs of Mount Cook before it, and since, made me well acquainted with this route.

My party made the first and biggest traverse of Mount Cook, and I had traversed the three peaks of Mount Cook; and besides being three times on the highest summit, I had been three times

on the lower summit and once on the second summit, so from these climbs with my eight attempts—the best of which was one 200 to 300 feet from the summit and two about 500 to 600 feet from the summit—I was well acquainted with the task in hand, and tackled it for my ninth attempt with every confidence so far as the climbing was concerned, but with some misgiving as regards the risk of falling stones and avalanches. I had kicked steps up the 1,200 feet or so to the Glacier Dome and down half-way across the plateau on the day of my arrival at the hut, so that when I started to climb after midnight the steps would not require cutting with the axe in the frozen condition; this gave me a good start. By the aid of the alpine lantern I pushed my way up this part of the journey, which took from two o'clock until about 4.30 a.m. It was good going, and I quickly crossed the plateau; got mixed up in the séracs (overhanging ice) at the Silberhorn corner; my candle light went out, and it kept me uncomfortably near an overhanging lump of ice (sérac) until I could light up again, and chip steps down the steep side of a crevasse which was easy to climb up in its ice-glazed state, but awkward to walk quickly down. I quickly chipped with one hand down somewhere into another less repelling part of the glacier, and went on quickly chipping steps until daylight revealed big avalanches and masses of broken ice strewn all over the centre of the glacier, sometimes conveniently fallen across the top and over the wide crevasse which would have barred my way, making it a welcome but uncertain way across the crevasse.

I got a surprise with that dawn and daylight, because the Chief Guide, Mr. Peter Graham, had expressed his opinion that the Linda Glacier was only broken at the Silberhorn corner. Of course, he could not see the huge mix-up which spanned the fallen-in parts of the glacier. The very hot sun and quick-changing conditions (since the week or so in which he had seen it from the top of Mount Johnson across the Tasman Glacier) had made it a formidable climb.

In places, sometimes, the Linda Glacier is only a walk, particularly in good snow conditions; but in frozen conditions and when covered with numerous avalanches it is a careful climb nearly all the way. Therefore I was determined either to descend the glacier before darkness, and before the freezing started to turn the surface into ice-slopes, or sleep high up on the mountain on a ledge.

Picking my way across a big avalanche at the head of the Linda Glacier, it was forcibly brought home to me that the mountains all round the Linda Glacier, including a particularly dirty gully, under the summit of Mount Cook, were alive with falling stones; and on nearing the gully directly under the summit of Mount Cook it was necessary for me to wait two and a half hours until the stones stopped rattling down; this time I spent at an elevation of above 11,000 feet on a ledge of rock where I had a sleep, food, and a beautiful view of the peaks all round.

The view towards Mount Tasman and the head of the Tasman Glacier was so inspiring that it made me feel I was guilty of trespassing in such solitudes alone. Finally, the temperature became

colder, the stones became less numerous. I left storm-clothes on this convenient ledge, as I intended to sleep there if necessary. I ran across the troublesome part of the snow-slope without incident. It is surprising how light the heavy alpine boots become when one is running away from stones or avalanches, and one cannot feel out of breath. Once I was on the steep snow-slope across the gully I took it easy again. It was a relief to find it was easy to kick steps on this face where, on my last attempt, it was necessary to cut steps. On this account, despite my long delay, I felt that, given good conditions, the summit could be gained and I could get back to the lonely ledge for the night; so with vigorous step-cutting along the snow-ridge, where a piece of falling rock just missed my head, I gained the bottom of the summit rocks and carefully climbed up to the last piece. I tried the snow on the ridge here and it was hard; this meant much longer time. The wind became so strong that it deceived me into expecting a north-west gale with probably heavy rain, and not having calculated on sleeping out in a gale it made me quickly decide to sleep at the Haast Ridge Hut that night. Climbing down the rocks as quickly as possible, the snow, being in splendid condition, enabled me to reach my starting-place, the hut, in five and a half hours (from 4.30 to 10 p.m.), the end of a perfect though risky day. During the whole of the twenty-six hours following I rested in the hut (Williams kindly repaired my alpine lantern); sleep was impossible, because the problem of climbing Mount Cook alone had gripped me; and it seemed to

be solved unless I was wiped out by a fall of ice or rock, which, after the previous day's experience, seemed highly probable. For my final climb Guide Cowling prepared a good meal, and showed special concern and attention in helping me to start punctually. His manner was gentlemanly and sportsmanlike, and he showed me real encouragement, the best I had felt for my several years of attempts to climb Mount Cook alone.

It was pleasing, and after wishing the witnesses "good-bye" I went out of the hut at twelve (midnight) into the fog, singing "Oh, for the wings of a dove," and plodded up the slope quickly. I was climbing fifty-three minutes to the top of the rocks leading round the dome from the hut, and under two hours round the Silberhorn corner, going easily and carelessly in the fog, thinking of what if this was "the day"; my dreaming suddenly stopped. I just pulled up at the edge of a crevasse as though by instinct and continued my journey on the alert. Want of sleep made me for the moment forget I was by myself. I became steadier and very soon commenced chipping where no steps appeared; crossing snow bridges and numerous avalanches, I took the big wide steps made the night before, and this enabled me to ascend quickly.

The dawn of a beautiful morning came at a convenient time as I was having a little early breakfast at the head of the Linda Glacier above the spot where Darby Thomson, Bannister and I had breakfast five years before. From here the journey across the face under the summit of Mount Cook was done in good time, considering the

broken ice and schrund. Then re-cutting a few steps which had been wiped out by falling stones, I gained the snow couloir leading to the commencement of the summit rocks. Half-way up this couloir it was necessary for me to cut steps for about 250 feet to gain a better take-off from the ice to the rocks than the one on the previous attempt, which was too low down and not good. In this I lost two hours owing to it being ice; even then the take-off was not good, but it had to go; and carefully picking my way up the summit rocks once more I found big patches of snow across the upper part of them, which I had climbed round previously. The top of the summit rocks afforded me a welcome resting-place for half an hour. I did not waste time looking for previous records left there, as some of them must have fallen down between big loose rocks (I saw one tin of records down in a crack of a big lump of rock) on the very top of the summit rocks. On the top of a big block of rock there is a convenient place for a record, so I placed my daughter's photo in a small camphorated-ice tin, and placed a stone or two on the top of it. I had drunk all my tea and a small bottle of lime juice, so, filling the water-bottle full of snow, I left it exposed to the sun while I climbed to the summit and down again, and I also filled this small bottle with snow and put it on the outside of my rucksack to melt in the sun. Feeling myself well supplied with liquid gave me relief, because a mountain thirst is a bad thing, particularly on the most critical part of the climb up the exposed ice-cap on the top of Mount Cook.

It was with great caution that I tackled this final 800 feet of steep ice. The Linda Glacier side of this steep slope was a seething face of water and slushy snow, causing a waterfall to fall over the rocks below. This final slope had caused me a good deal of thought every time the details of my solitary climb were contemplated. How would I find the snow conditions? Everything depended upon this; the hard or soft condition of the snow, and the difference between perfect conditions and bad conditions, means walking up in about one and a half hours in good conditions, or several hours of hard work in a delicate position with a drop of about 5,000 feet for every piece of ice one cuts out of the steps, which must be cut carefully on such hard snow and ice conditions. The bad or good condition of snow means the success or failure to climb to the summit of a mountain like Mount Cook.

My worst fears were realized: I found "beady ice," which after many cuts with the axe afforded a very insecure footing and just as much work as fairly hard ice. It meant hours of work, but the hardest task Mount Cook had set me had been more than prepared for in my step-cutting up mountains in training for the present task. Nothing from the mountain could fall on me. I had to just keep cutting! cutting! cutting!—in fact, persuading myself that I was a machine was my best plan. When one is alone on a long ice-slope its top does not seem to get any nearer. This is what makes even the most determined parties turn back. The kind hints given me by Mr. Peter Graham (the Chief Guide) were very comforting,

but there was no best way to cut up this slope. My reason repeatedly told me I had no right to be climbing in such bad conditions; but, like the second ascent of Mount Aspiring and my first climb of Mount Sefton (in a gale), it was death or conquest; so the summit had to come nearer. I crossed the face, selected a good snow-ledge to get across the bergschrund on the slope leading towards Mount Dampier, and slowly plodded my way up to the summit, where I appeared, so my witnesses said, in very quick time after getting through with the step-cutting. The summit of Mount Cook shows this year's very heavy snow-fall, and I should calculate that it was 10 to 15 feet higher this year than I have ever seen it. On the first crossing of Mount Cook the slope down to the north-west could be walked from the summit; and nearly every time I have been on the summit, except once, that condition has prevailed. On this present occasion, as well as on one other occasion, the summit was uneven. Five years ago I slept two hours on the summit protected from a cold north-west wind by most of the summit being about 2 feet higher than the 4 feet wide ledge on which I slept. This year the 10 to 15 feet of snow was an irregular "wind-piled, slightly honeycombed cap" on the northerly and north-west slope, but nearer the Tasman face it was flat, with the usual steep drop. The summit generally was in a scraggy, unsatisfactory condition compared with the nice smooth summit I have always seen before, with but only one exception. The mile and a half ridge down to the third peak showed evidence of the same irregular

over-supply of snow in the act of being got rid of by the last week or two of hot sunshine.

The sun had begun to sink, and it meant a race against time. My witnesses record the time as four o'clock when I stooped down and planted the barbed wire with a 2 feet 6 inches British Ensign on it in the snow, and pushed the small bottle in at its side. I planted my flag about 6 inches from the edge of the Tasman face, so that when the prevailing north-west wind blew it could be seen from the hut, and in this I was successful. Standing up and stamping the snow around it I felt that by that act I had conquered Mount Cook alone; if the mountain had made me feel cautious and unable to move about freely, the proud feeling of conquest could not have survived.

The view was unusually fine as I stood alone on the top of New Zealand, the first (which turned out to be the only) ascent of Mount Cook in the Peace Year, 1919. It was not climbed in 1920 or 1921.

I have seen the sea on both sides of New Zealand on seven occasions on which I have been on the summit ridge of Mount Cook, but besides this view there were a few clouds forming a background behind peaks to the north and south. I tried to see what Mount Tutoko was like, so that I would know what to expect on my trip down there, but was not sure of its identity, as some peaks were hidden which would have afforded me something to identify it with.

The extra snow on the peaks and the recent hot sun made every snow-ridge sharper, and this intensified the view. I spent only a few minutes



AUTHOR ON WALL, HAAST RIDGE HUT.



ICE-FACE, MOUNT COOK, TASMAN SIDE.

on the summit, and this seemed too long, because it was about three to four hours too late to be on that summit. I had waved the flag up and down before planting it in case anyone was looking for me from near the Hermitage, but nobody there seems to have seen it. I tried to locate the spot where one can see from the higher summit of Mount Cook, and it seemed to me as though I could recognize Governor's Bush about 100 yards away from the Hermitage, near valley-level.

Mount Sefton looks very disappointing from Mount Cook, and so do many mountains; but Mount Tasman does not, as it is one of the finest mountains in any alpine region in the world, and it holds its own in some respects with Mount Cook. There was an unusually big plaster of snow on the Southern Alps, and one could easily understand the cold summer in New Zealand, no doubt caused by the extra 20 to 30 feet of snow-fall. I got down off the summit to below the summit rocks in one and a half hours, according to my witnesses; but after this I had a tantalizing and cautious time re-cutting a number of steps which had not only been obliterated, but had been re-frozen into hard, shiny ice. I managed to get off the worst part before the shades of night had made it impossible to see the steps. Quickly crossing the stone-swept couloir and taking my storm-clothes off the ledge, I made a bold bid to get down off the glacier instead of sleeping up on the mountain on such a cold, frosty night. All kinds of acrobatic performances were necessary to get down the head of the hard frozen Linda Glacier before lighting my candle; once I held

the lantern in one hand good progress depended upon my finding my steps where I had crossed the avalanches. As on my three climbs up and down this glacier by candle-light within the last three days, so on this occasion some guiding angel or the bump of locality kept me from worrying when the place seemed strange and the chance of finding my steps seemed hopeless. Plodding on in the way my instincts led me, it was most wonderfully lucky that I came across my steps nearly every time I was puzzled, just about the right moment, when the pitch-dark night and the distorted séracs and crevasses seemed a strange part of the glacier. During that hot, sunny day my steps had melted until only the frozen shadow of the steps were left, and in my haste to get down my feet at times commenced to move towards a deep crevasse, giving me warning that a colder and longer sleep was near at hand unless I exercised the utmost caution and patiently chipped steps with one hand, holding the lantern with the other. The wire connecting the lantern top was loose and came out from time to time, so there was a chance of being left in the dark. (The previous time I climbed down the rocks off the dome the lantern got crushed and had to be repaired, but the wire had a knack of coming out at the wrong time.) It was a thoughtful moment crossing the long, narrow snow bridge under the Silberhorn, which was black with small stones, and soon after crossing to the left under the Silberhorn a huge sérac toppled over and down the narrow gully down which I had to go; and to get into this gully broken ice bridges had to be negotiated.

One can get used to most things, even séracs falling dangerously near, so long as one is not struck. The avalanche down the gully seemed very much bigger than in the early morning, but it afforded a quick passage instead of painfully slow step-cutting; so the avalanche, the sérac or falling stones could have their chance rather than I should sleep on the glacier that night, because I had been without sleep nearly seventy hours. I must have been getting a little tired without knowing it, because the frozen glacier surfaces seemed to be a long business. At last I was crossing the danger zone of the Silberhorn corner and saw the welcome light of my two witnesses on the dome. Quickly threading my way through the enormous avalanche ice which had fallen from the Silberhorn, and crossing the lower part of the avalanche, I was soon on my good steps again and walking very fast up the plateau towards the summit of the dome. Walking across an avalanche ice may seem risky, but this is not always the case, as sometimes one can calculate the amount of ice on the bed of the glacier and the amount of ice that is still up above; and even if the ice above is ready to fall it can be fairly safely gauged as to how far it would spread, and late in the season when nearly all the big avalanches have come down it is usually safer on some part of the avalanche than on the smooth bed of the glacier. Anyway, the climber would never reach a summit who had scruples about crevasses, snow bridges, avalanches, and the sundry other interesting obstacles the mountain puts between the climber and his goal.

The witnesses gave me some hot beef-tea, which

made me feel very drowsy, and I walked quickly over the summit of the dome after half an hour's rest; but sleep was getting hold of me as I stumbled down the rocks of the dome and the ice-slopes below, as the very welcome refreshments made me feel inclined to sleep on the Glacier Dome rocks for the rest of the morning. The welcome hut was reached at 2 a.m., which was exactly twenty-six hours from the start, with not more than one and a half hours' rest. My rests were only for food or drink, as I cannot remember being out of breath once during the whole journey. It was the bad condition of the mountain and not slow-climbing that was responsible for the time being only moderate for speed, because my witnesses were surprised at my speed when no step-cutting was necessary, from the ridge near the summit to the summit, and from the summit down to below the summit rocks.

The narrative proving the climb on the signed statement will satisfy the most exacting readers, and this signed statement was arranged for because there has been discussion for about fifteen years as to whether the late Mattias Zurbriggen actually reached the summit of Mount Cook when Guide Adamson accompanied him. I decided that so far as lay in my power the food for argument would be removed on my climb. Certificate is as follows :—

Mr. Samuel Turner, F.R.G.S., of Wellington, New Zealand, and I arrived at the Hermitage on Saturday, March 1st, and journeyed to the Ball Hut the next afternoon on horseback. On Monday morning we went to the Haast Ridge Hut with heavy swags. In the afternoon Mr. Turner went to Glacier Dome and three-quarters of the way to the Silberhorn corner kicking steps.

Mr. Turner left the Haast Hut to climb Mount Cook by himself, if conditions proved favourable, at 2 a.m. on Tuesday morning and got back at 10 p.m., same day, after twenty hours. I saw him half-way up the summit rocks at 3.45 p.m.; he turned back at 4 p.m. on account of strong north-west wind. Wednesday, March 5th, Mr. Turner rested during the day. Guide Cowling, official witness, arrived at the hut Thursday, March 6th. Mr. Turner left the hut at 12 a.m. for the climb of Mount Cook by himself; very foggy. Cowling and I first sighted Mount Cook through the fog at 10 a.m. We first sighted Mr. Turner above summit rocks at 12.10 p.m. We saw Mr. Turner cutting steps up the ridge for several hours. We saw him on the top plant his flag at 4 p.m. He left to descend at 4.15 p.m., and went out of sight on summit rocks at 5 p.m. We met him on the Grand Plateau at 11.30 p.m., and all arrived at the Haast Hut at 2.10 a.m. on March 7, 1919. This is the first amateur ascent of Mount Cook, and the first time that Mount Cook has been climbed by one man alone to the top.

(Signed)

EDGAR WILLIAMS,

Witness.

Certified to by ALFRED COWLING,
Government Guide and Official Witness
Appointed by Chief Guide.

CHAPTER IX

A BRIEF MOUNT COOK HISTORY

A different mountain from four aspects—Routes up Hooker side—First ascent by Guides—Tasman side—Zurbriggen and Adamson climb—New Zealander's opinion of same—More explanation necessary—I believe Zurbriggen reached summit—Avalanche study—*Alpine Journal* on siege of Mount Cook—Risky routes—List of ascents and names, etc.

AT the risk of a certain amount of repetition I will now give a short general history of Mount Cook. Mount Cook, 12,349 feet above sea-level, has three summits, which form a ridge one mile and a half long, and each summit is higher than the next highest mountain in New Zealand (Mount Tasman).

If Mount Cook is judged by the height of its summits from the valley, it is a bigger mountain than any of the Swiss Alps, which might be 3,000 feet higher above sea-level.

Seen 14 miles away from the Hermitage, at the end of the Hooker Glacier, it represents a pyramid with two summits; but on closer acquaintance it is found the mountain is anything but a pyramid in shape, owing to the numerous ridges, buttresses, couloirs, gullies, and glaciers that adorn its sides.

The geological contour of the monarch of the New Zealand Alps affords several routes to its summits, making it one of the most attractive and hypnotic mountains from a climber's point

of view, and particularly fascinating and an ideal mountain from a spectacular standpoint.

Looking at this massive mountain from any of the four points of the compass, it looks like four distinct mountains, and no matter how many times you look at its magnificent precipices, you never tire of the view, which is superb when the "long white cloud" so typical of New Zealand tips its summit.

If you follow the Hooker Glacier to its source, you pass three sharp and steep rock-ridges on your right, up which you can climb to Mount Cook's third summit. The first, the western face, was climbed by Mr. H. Sillem, with Peter Graham (Guide), in February 1906. The second ridge is still unclimbed, and the third was climbed by the writer with Peter Graham and F. Milne on March 27th.

The third ridge is the most direct route to the third summit. These three ridges rise out of the glacier at a height of 7,000 to 8,000 feet, and the distance from the glacier, where they commence to rise out of the glacier, back to the main ridge of Mount Cook is almost two miles.

These ridges are very much broken, but in places the crest of the ridge is sharp, with precipitous gullies down their sides, with occasional steep snow-slopes.

One has to climb up the smallest cracks, chimneys, and across steep faces of rock and snow, in one or two places, making it the most interesting route to be found on any of the ridges leading to the summit ridge of Mount Cook.

The crests of these ridges vary from 40 to 80

degrees, and join together at the last rocks under the summit snow-forming a tripod supporting the third summit snow-ridge on their highest rocks.

Continuing up the Hooker Glacier, one passes along parallel to Mount Cook's summit ridge and the steep ice-face leading down from the ridge with the second peak of Mount Cook in the centre of the summit ridge, without coming to any rock-ridge like the ones leading to the third summit; but the Empress Glacier is formed by these ice-slopes, and big séracs of ice drop over walls of rock on their way down to the Hooker Glacier, where both glaciers meet and form a confusion of crevasses and fantastic ice-blocks, owing to the Hooker coming from a northerly and the Empress Glacier coming from an easterly direction; and the masses of hard ice, several hundred feet thick, slowly crawling down from different directions resisting each other's pressure.

The next and last buttress and ridge, which rises from the Hooker Glacier leading to the summit ridge and the highest summit of Mount Cook, is over one mile from the last-named ridges, and is situated not far from the head of the Hooker Glacier, and is the easiest route to the summit of Mount Cook that has been found up to the present. This ridge was first climbed by Mr. Earl, with Guides Peter and Alex. Graham and J. M. Clark, March 1909. It is the last ridge leading to the summit on the right. It rises from the glacier at a height of 9,000 feet, and requires not more than 3,000 feet of rock-climbing to gain the highest summit by this route.

To climb this ridge one has to go round the

buttress near the bivouac, take off the Hooker Glacier a little way along nearly at the head of the glacier, and climb up a rotten rock couloir. In the late summer the glacier is so badly broken as to make it an impracticable route. Also near the summit rocks the shoulders and gullies are subject to ice-glazed conditions owing to drift-snow being whirled up both the Hooker and Linda Glaciers, which are only divided by a narrow ridge and precipices.

The route by which the first famous climb of Mount Cook was done by the Hermitage Guides, Messrs. T. C. Fyfe, J. M. Clarke, and G. Graham, was at the head of the Hooker Glacier, up a couloir of snow from the glacier for about 1,500 feet, called Green's Couloir, then on to a narrow ridge, which in a series of shoulders of rock leads to the summit and across the top of the last-named ridge. Green's Couloir is now looked upon as being too dangerous, owing to the risks climbers take of the avalanches of rock, snow, and ice; and the ridge leading to the summit of Mount Cook from the top of this couloir is often ice-glazed, as the precipices form a sheer wall of rock at the head of the Linda Glacier, and also at the head of the Hooker Glacier. It was down this ridge and couloir that the writer's expedition had a rough time, and the writer was hit on the head with a stone coming down the snow couloir—1906.

Mount Cook does not slope down to the west coast because the Hooker and Linda Glaciers nearly surround it, and Mount Dampier and St. David's Dome are on its north-west side between Mount Cook and the west coast.

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To get to the east face of Mount Cook the easiest way is to go from the Hermitage round the Tasman Valley to the Ball Hut ; from there one can climb the Ball Pass, where a view is obtainable of the most formidable face of Mount Cook, with steep ice-slopes crawling down to form a glacier below. One sees the most formidable south-east face of Mount Cook from the Ball Pass.

From the summit of the first peak from the Ball Pass (called Turner's Peak) one of the most effective and complete views of the whole of the Mount Cook Ridge can be seen. This includes two peaks and three summits of Mount Cook.

The first peak was climbed by the writer for the first time some years ago, and the next two peaks nearer Mount Cook were climbed for the first time by Miss Du Faur ; but the traverse of the whole of this ridge of Mount Cook has never been done, although the traverse of the three summits of Mount Cook has been accomplished three times within as many years.

The three peaks are on an irregular ridge a mile and a half long, the climbing of which varies very considerably in difficulty according to whether the conditions give snow or ice.

In ideal conditions of snow the traverse of the three peaks from the Hooker side to the Tasman side is the easiest traverse on Mount Cook. To get to the most difficult way of climbing Mount Cook you go to the east face. From the Hermitage the first stage is to the Ball Hut, 16 miles, then about five miles across the Tasman Glacier, past the Hochstetter Icefall ; then you climb about 3,500 feet up the Haast Ridge, which is a steep

rock-ridge running from the Tasman Glacier to the slopes of Glacier Dome, to the Haast Memorial Hut, at a height of 6,800 feet above sea-level. One has to climb over or around the summit of Glacier Dome to reach the great snow plateau that forms a great basin at a height of about 7,000 feet above sea-level. This plateau cannot be seen from the Tasman Glacier, as it is in the very heart of the most magnificent mountain region in New Zealand. The plateau is almost surrounded by huge mountains, and from the Glacier Dome to the Silberhorn there is a complete circle of snowclad mountains, with slopes of ice and snow steeper and more treacherous looking than I have ever seen in the four continents where I have climbed, and I doubt if more precipitous slopes are to be seen anywhere in the alpine world.

The Linda Glacier flows into this plateau, and meets the ice off this buttress and the north-east face of Mount Cook, as each flow of ice slowly forces its way towards the Hochstetter Icefall. This icefall is the only outlet for all the snow which the plateau collects from about 10 miles of mountain slopes, that are from 4,000 to 5,000 feet from the plateau to the summits. The icefall is about 4,000 feet from the Tasman Glacier to where it flows out of the plateau, and three miles across.

Its thickness is from 300 to 500 feet, and enormous blocks of ice tumble about in the wildest confusion, in one place dropping down a steep rock face 300 to 400 feet.

This avalanche spot never fails the tourist who goes on to the Tasman Glacier to see avalanches

and the icefall, also the east face of Mount Cook and Mount Tasman.

The east face of Mount Cook is to be seen behind this icefall about two miles back from the foot of the icefall on the Tasman Glacier. This face of Mount Cook is a steep snow slope, as it rises from the upper slopes of the plateau, but it is an enormous buttress of rock on its north side, or the north side of its summit; and this buttress connects with Mount Cook summit slopes by a sharp rock-ridge almost cut in two in one place, with snow on the east side and too steep for snow on the walls facing the upper slopes of the Linda Glacier.

It was up the north-east rock-ridge that Guides Zurbriggen and Adamson made the first ascent from the Tasman side. As many writers have given Zurbriggen credit for making this climb alone, the following particulars taken from Zurbriggen's narrative in Fitzgerald's book, page 323, will prove conclusively that Zurbriggen did not make a solitary ascent. "Zurbriggen left Hermitage March 13, 1895, with Guide Adamson for the Ball Hut, starting at 1.20 a.m. from the Haast Ridge March 14th. They reached the plateau rocks at 2.40 a.m. Here they rested for a few minutes, and then put on the alpine rope, and left again at 2.53 a.m., reaching the foot of the rock arête at 4.50 a.m., waited till 5.20 a.m. At 8.30 a.m. they found themselves near an ice-wall which crossed the rocks. Arrived at the rocks at 9.15 a.m. From 10.40 a.m. to 1.50 p.m. we pursued Green's route. Started alone at 12.15.¹

¹ This is a mistake, probably the 1.50 means 11.50 a.m.

I succeeded in surmounting these last obstacles without serious difficulty, and finally stood on the topmost peak of Mount Cook at 3.40 p.m., having completed the ascent in fourteen hours. Started down at 4.5 p.m., and reached the Haast Ridge about 1.30 a.m.”

It will be seen here that Adamson accompanied Zurbriggen, and was roped to him for ten and a half hours to twelve and a half hours. Zurbriggen joined Adamson in the descent. It is estimated that Adamson waited for Zurbriggen somewhere on Green's route, seeing it says “we pursued Green's route from 10.40 to 1.50.” Green's route joins the rock-ridge at about 10,000 to 10,250 feet. It is therefore probable that Zurbriggen climbed about 2,000 feet alone. The most remarkable thing about this ascent is the fact that Adamson informed T. E. Donne, the then Manager of the Tourist Department, that he did not believe that Zurbriggen reached the summit of Mount Cook. Captain T. E. Donne, in 1905, asked me to see if I could throw any light on the climb to prove it one way or the other. I looked into the times taken, and the narrative given by Zurbriggen, and I said that Zurbriggen should make his account clearer. For my own part I don't think Zurbriggen would wilfully make the statement that he gained the summit of Mount Cook unless he thought he had done so, and since my long experience of Mount Cook, and judging by my own times, those times are quite in harmony with the time for the performance. In Zurbriggen's book *From the Alps to the Andes*, he says he left his companions at a height of 10,000

feet on Mount Cook and proceeded to the summit himself, and he came down about 160 feet, where he left his card in a rock. There is a rock which one cuts past, which, when Mount Cook's summit is lightly loaded with snow, might be about 300 feet below the summit. This rock was not showing in 1906, when my expedition made the first traverse of Mount Cook, but I have noticed it in recent years; therefore if my criticism of Zurbriggen was unfavourable in 1906, it was honest and absolutely just according to information and observation I was able to command at that time.

It must be understood that the Manager of the New Zealand Government Tourist Department at that time, Mr. T. E. Donne, took a very important interest in all the ascents, as now Mr. B. M. Wilson and Mr. Frethey, the present Manager and Assistant, do; also, that the Tourist Department records of all the climbs are the most reliable independent authority in New Zealand. Therefore, as this Department asked me to make investigations, I did so to the best of my ability at that time.

Since my last statements I have seen Mount Cook, and been on its slopes a good deal, and from what I know now I have no hesitation in stating that I believe Zurbriggen did reach the summit of Mount Cook after he left Adamson at above 10,000 feet. This is the first emphatic statement I have made on the matter, because I was very reluctant to make a definite statement myself owing to Mattias Zurbriggen having been the greatest living guide of his and previous generations, and a man whom I have always admired.

The next climb up the Tasman face was to the

left of Zurbriggen and Adamson's route by Turner's expedition. This was the first traverse of Mount Cook, January 1906, not since repeated. It is the biggest and most difficult traverse of Mount Cook, as both routes have been abandoned. Peter Graham led for the first time on this expedition, and T. C. Fyfe was second Guide; Ross was my guest, and it was his "one big climb."

The route by which the Rev. W. S. Green tried to climb Mount Cook is up the Linda Glacier, which is behind the east face and rock buttress of Mount Cook. The Linda Glacier crawls down from under the summit of Mount Cook in a north-easterly direction from a height of 10,000 feet, polishing the steep rock walls behind this buttress and east face of Mount Cook. All the mountains, from Mount Cook round to the Silberhorn (about five miles of mountain slopes that rise from 4,000 feet at the lowest part of the glacier to about 1,500 feet at the upper end of the glacier), shed their snow and ice on to the Linda Glacier, and as the slopes are very steep the avalanches are numerous during the avalanche season, which in a seasonable year would be spring-time (September-October). For the first 2,000 feet the Linda Glacier is a gradual slope, but after that, where it crawls round the Mount Cook buttress, the ice seems to tumble over an out-jutting ridge of rock on the bed of the glacier, and here the crevasses are both wide and deep. The condition of the glacier is ruled by the amount of snow that falls on the high mountain slopes, and it is less crevassed when the snowfall is heavy. This also applies to ice avalanches.

During the 1914 winter the snowfall was very

light, and this small quantity of snow sank into the late summer crevasses, but was not sufficient to fill them up. The spring up to about the first week in February was cold, and the sun had not been strong enough to melt this snow, but about the second week in February the weather cleared and a spell of very warm weather seems to have set the snow melting, and of course freezing, every night, and the expansion caused by the freezing of so much water was sufficient lever to set the ice in motion.

A number of avalanches of all sizes shot down these mountain slopes on to the Linda Glacier during the middle of February this particular year, and the unfortunate climbers who were lost in an avalanche were unlucky enough to be climbing during the delayed avalanche season.

Avalanches occur from many different causes, but the three main causes are explainable. The rock avalanche is generally caused by the melting of the snow, and the water running into crevasses in the rocks, which freezing during the night expands and bursts the rock away from the main part of the mountain, and generally comes down after the morning sun has had the effect of thawing the ice that holds the piece of rock to the precipice. The snow avalanche shoots down when the sun has had time to melt and loosen it, which is generally in the early afternoon. The ice avalanche generally crashes down just after sundown, when the water caused by the thaw during the day has run into the cracks between the ice or between the ice and rock on the precipices, and has begun to freeze.

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The freezing makes the water turn into ice and the expansion bursts the ice apart, or from the rock, and releases the avalanche.

The old ice does not stick to newly formed ice, and therefore it is not necessary for the sun to come out the following day and release it like the piece of rock with its rough surface. Ice séracs fall at any time, and are mostly caused by the pressure from the glacier as it forces the ice over some rough rock-bed.

A climber will see up on the ice-slopes a break-away in the ice, and it will have its interesting if not fascinating charm. As it sheds some of its ice he will watch it come tumbling down, little thinking the distance it can travel, and he is caught and killed; while if he had been alert and run immediately he got the warning, he would have been shrouded in the ice-mist and felt that Fate did not decree that his time had come.

It is mere chance for the climber to be killed by the fall of an ordinary ice-sérac, or a piece of rock, during a climb, although every climber of the high alps has many near calls. The climber knows that it would be something akin to fate to be killed by the occasional fall of a sérac or a piece of rock, so he forgets the incident, except to warn future climbers.

Although the Rev. W. S. Green and his two Swiss Guides did not climb to the summit of Mount Cook, he reached the ice-cap, and was about 300 to 400 feet from the summit. This plucky attempt was made in 1882. This splendid failure started attempts by all the New Zealand climbers. Mount Cook history would be too long to record

all the attempts in detail, but the *New Zealand Alpine Club Journal* puts the value on the mountain in its records of 1892 to 1895 as follows:—

THE SIEGE OF MOUNT COOK.

“Since there has come the Rev. W. S. Green, there have come, seen, and been conquered, Dr. Von Lendenfeld, C. D. Fox, Mannering, Harper, Inglis, Annon, Fyfe, and Ross, besides many who would have tried if they had known how.”

Almost immediately after that was written, the Hermitage Guides and porters, T. C. Fyfe, George Graham, and J. M. Clark, made the first ascent from the Hooker side of Mount Cook on the 24th of December, 1895, while all the other climbers made nearly all their attempts from the Tasman side up the Linda Glacier, via Green's route without success; and it was not until 1912 that the first successful ascent of Mount Cook was made up the Linda Glacier via Green's route to the actual summit, just thirty years after the almost successful ascent by the Rev. W. S. Green and his Swiss Guides.

From 1894 up to June 1921 there have been twenty-three ascents of Mount Cook, including five traverses.

Three of these traverses have been across the three peaks from south to north: one from the Hooker Bivouac to the Haast Bivouac, via Earl's route, and over the highest summit and down to Green's route, and one traverse up the Tasman face down Green's Couloir to the Hooker Glacier and on to the Hermitage. There has only been

my one successful ascent by one man alone, either amateur or professional; and no party of amateurs have ever climbed Mount Cook. It was thought by some people that T. C. Fyfe, George Graham, and J. M. Clark were amateurs, but the *New Zealand Alpine Club Journal* records them as paid Guides for two years before their first ascent of Mount Cook.

There is no doubt that most of the English Alpine Club men who have come, seen, and been conquered by Mount Cook, as well as many other equally skilful and well-known climbers, have been defeated by the weather, while there are several climbers who have reached the summit by child-like faith in their Guides and in a particular Guide. The bad weather conditions that usually prevail make the mountains much more formidable than the same mountains would be in Switzerland, and one cannot expect to do much climbing under present conditions in New Zealand with less than a month at one's disposal.

Compared with the Swiss Alps, the mountains in the Mount Cook district are very much alive, and the climber will see a good many more avalanches, and be in wilder parts of the mountain world, than he will be in the Swiss Alps.

Possibly climbers to-day in the New Zealand Alps are climbing routes up mountains which in the future will be abandoned as too dangerous, but that will be after fatalities have occurred. The climbing of the higher mountains of the world seriously commenced with the first ascent of Mount Blanc by the Swiss in 1786, but the first accident occurred in 1820 on this mountain (three

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Guides were killed by an avalanche). That was thirty-four years after the first climb of the monarch of the European Alps. In the case of Mount Cook, the first fatality has occurred just twenty years after the first ascent of the monarch of the New Zealand Alps. In this respect Mount Blanc looked harmless longer than Mount Cook from the first climb, but it has been responsible for more fatalities than any other mountain in the world; and a party of eleven (nine Guides and three tourists) lost their lives on Mount Blanc in one tragedy. Let us hope that climbers will fully equip and train themselves before attempting Mount Cook, and therefore cheat Mount Cook of as many victims as possible. It will claim victims even from the best climbers, without ordinary climbers tempting it; and although some climbers may be able to climb without Guides as the result of years of experience, making them full of resource for any emergency, the inexperienced, even with Guides, will be taking too much risk.

Every climber has different reasons for climbing, but the real climber will climb even if there be only the mountain to witness his feat. He loves the wild upper mountain ice and precipices, and calls them grand and beautiful, instead of awful and awe-inspiring.

Table of Various Ascents of Mount Cook from the First Ascent in 1894 to the Solo Ascent in 1919 (1917, 1920, 1921 there being no Climbs of Mount Cook).

NUMBER OF ASCENT.	NAME.	DATE.
1	T. C. Fyfe	December 24, 1894.
	Geo. Graham	
	J. M. Clark	

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NUMBER OF ASCENT.	NAME.	DATE.
2	Mattias Zurbriggen Adamson (waited for Zurbriggen at 10,000 to 11,000 feet)	March 15, 1895.
3	Dr. E. Teichlemann Rev. H. E. Newton R. S. Low J. M. Clark Peter Graham	February 4, 1905.
4	S. Turner M. Ross T. C. Fyfe Peter Graham	January 11, 1906.
5	H. Sillen J. M. Clark Peter Graham	1906.
6	L. M. Earl J. M. Clark Alex. Graham Peter Graham	March 4, 1909.
7	Freda Du Faur (first lady) Alex. Graham Peter Graham	December 3, 1910.
8	F. De Guerrier Darby Thomson Peter Graham	March 7, 1911.
9	J. R. Simpson J. M. Clark T. C. Fyfe	March 9, 1911.
10	H. C. Chambers H. F. Wright J. P. Murphy J. M. Clark	February 25, 1912.
11	S. Turner D. Thomson G. Bannister	February 27, 1912.
12	Mrs. L. H. Lindon Peter Graham D. Thomson	April 12, 1912.
13	Freda Du Faur Peter Graham C. Milne	January 3, 1913.

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NUMBER OF ASCENT.	NAME.	DATE.
14	Tygre Gran	March 1, 1913.
	Peter Graham	
	D. Thomson	
15	S. L. King	February 22, 1914.
	D. Thomson	
	J. Richmond ¹	
16	H. Otto Frind	February 22, 1914.
	Conrad Kain	
	W. Brass	
17	Mrs. Thomson	January 31, 1916.
	Conrad Kain	
18	S. Turner	February 24, 1916.
	F. Milne	
	J. Lipp	
19	Mrs. P. Graham (first N.Z. lady) .	December 13, 1916.
	Peter Graham	
	F. Milne (two ropes)	
	R. Young	
	J. Lipp	
	J. R. Murrell	
20	Miss B. Holdsworth	January 9, 1918.
	H. A. Holl	
	Peter Graham	
	J. Lipp	
21	Miss Lorimer	January 27, 1918.
	H. A. Holl	
	Peter Graham	
22	R. B. Seager	March 13, 1918.
	P. Graham	
	A. Cowling	
23	S. Turner (the only single-handed ascent)	March 6, 1919.

Mount Cook not climbed—1920, 1921.

¹ Buried in Linda Glacier, body brought down from 9,000 feet up Linda.

CHAPTER X

MY FIRST MOUNT TUTOKO EXPEDITION, 1919

Bluff to Milford Sound—S.S. *Hinemoa*—Dunedin engineer—Trudge through bush—Tutoko valley camp—Head of valley camp—Steep couloir—New pass—Return base camp—High camp—Select bivouac—Kicking steps on Mount Madeline—Heavy rain—Return to high camp—Difficulties of swagging—Flooded Tutoko River—Return to Sandfly Point—Sound's formation, etc.—Return to Wellington.

BEFORE my first expedition to this district there had been two visits, each of three days, from the head of Milford Sound and back, but nothing had been written that one could take as a guide or indication as to where these two visits had actually been made. In 1919, although we had a copy of Mr. Ross's account of his three days' visit, we were much puzzled as to where we should find Ross's high camp. The second visit of three days from Milford Sound and back was by Messrs. J. R. Murrell and E. R. Williams, of which nothing was written. In the *Melbourne Leader* summer number, dated October 5, 1895, under the heading "Fiordland," Malcolm Ross describes the three days' visit by his *Leader* party as follows: "Kenneth Hodgkins, Fyfe, and I, with Donald Ross as Guide, left to explore the north-west branch of the Cleddan River and make the first ascent of Mount Tutoko, 9,040 feet, the highest mountain in the Fiord region. We had only three days in which to

accomplish our undertaking." On page 7 he states : " From the plateau the route to the summit looked easy, and we were confident of topping the peak by 2 p.m. . . . but at length we reached the highest rocks, and our difficulties for the time being were over. The view was wonderfully grand, especially inland, peak after peak rising in savage grandeur."

On page 9, column two, Mr. Ross states, in referring to Mount Tutoko and his *Leader* party : " The mountains in many cases come sheer down to the water's edge, and their lower slopes are densely wooded, while their tops are crowned with perpetual snow. They are very steep, their solid granite walls presenting little foot or handholds for the climber, and with the exception of Mount Tutoko, which was ascended for the first time by some members of the *Leader* expedition, none of the more important peaks have been scaled."

In the *New Zealand Alpine Club Journal* there is an extract from the *Otago Daily Times*, May 12, 1895 : " It was not till sunset that the crest of the final peak was reached. In answer to a question by the *Otago Daily Times* reporter as to what impressed him most on the trip, Mr. Ross stated that the view from Tutoko must be placed first."

Mr. Ross contradicted these statements of his in his own book, published 1914, *A Climber in New Zealand*. On page 249 he writes : " As we had spent hours on these rocks and ice-slopes, where we expected to spend minutes, it behoved us to think of the descent. There was a further pinnacle of the peak above us, and earlier in the season, with the rocks in good condition, we should



MOUNT TUTOKO FROM TUTOKO VALLEY.
Over 8,000 feet of precipices.

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have waltzed up in quick time, but now, with the rocks in this frozen state, it was clear that there would be step-cutting—and difficult step-cutting at that—all the way, and not only step-cutting, but the uncovering of the rock itself, so that if we wished to get off the mountain in daylight, it was already high time to think about the descent. We took one last look around, and then very slowly and cautiously commenced to climb down.”

The chief attraction about the Tutoko district is the climbing of Mount Tutoko, therefore the incorrect statement by Malcolm Ross kept myself and others away from that district, but Mr. Ross's correct statement that his party did not climb to the summit gave fresh interest to that district, hence my three expeditions over five and a half months.

There is a further interesting thing about this mountain Mr. Ross wrote so strangely about, and that is the fact that my expedition has proved this mountain Ross took to be Tutoko was 9,045 feet, but that the real Mount Tutoko was two miles away, and was proved in 1921 to be 9,691 feet, in confirmation of the Admiralty chart sheet 12, early publication 1850-51, as surveyed by the s.s. *Acheron*; and this has been corrected on my sketch map published by the New Zealand Lands Department. There is a lot more work to be done in the Tutoko district, which will be continued from an entirely different base, as all the most important work has been done that can be reached from the head of Milford Sound. This district is very difficult to get results in, and difficult to survey.

The late Mr. J. R. Murrell before leaving for the war (in which he made the supreme sacrifice), showed me a photograph of Mount Tutoko, and explained how the Malcolm Ross party had made a serious mistake in calling another mountain Mount Tutoko.

I agreed to join Mr. Murrell and his friend E. Williams, of Christchurch, on Murrell's return from the front to climb Mount Tutoko, which Jack Murrell was sure had never been climbed.

This made the climb more attractive. I intended going early this last season (as Mr. Murrell asked me not to wait for him), but the lateness of the season had prevented me climbing Mount Cook alone until March, and I could not leave before the end of March, too late for Mount Tutoko; therefore I decided to lay the foundation for next year, and do some preliminary work if I found it too late to make the ascent.

Provisions and equipment for about two months were sent via the *Hinemoa*, by the kindness of the Tourist Department and Marine Department, who were more than interested in this expedition, probably because it was the first serious expedition to this mountain valley.

With a friend I left the Bluff on the s.s. *Hinemoa* on March 21st this Peace Year. The journey to the lighthouses fed by this Government boat *en route* was interesting, and on the way to Milford Sound we encountered a rough sea. One appreciates a good reliable seaboat like the *Hinemoa* in a rough sea, but although my journeys have taken me nine times round the world and a number of shorter trips, the scenery has never been so grand

that the ship took to standing on its tail, like the *Hinemoa* did, to get a better look at it; but for all that the very genial Captain made one feel the delights of good ship's company.

The ship was anchored at the further end of a Sound for one night *en route*, and as a fresh fall of snow covered the precipices to the water's edge, the scene was very beautiful. The Sounds of New Zealand are a new and strange part of little-known New Zealand; each Sound has its own characteristics and history. The ship's boat rowed us up to Sandfly Hut from its anchorage in Milford Sound.

The world seems to grow smaller the older one becomes. A Mr. Noble, engineer, of Dunedin, whom I met at the Sandfly Hut, reminded me of his having been one of the audience when I lectured on "Siberian Exploration" before the Royal Scottish Geographical Society, 1905, in Edinburgh. It was a most interesting and unique experience to meet this gentleman in so remote a spot.

That same evening we commenced to get loads ready for our porters, and on arrival of our men the following day we completed the loads and got away the day after at 8 a.m. Six of a party, all heavily laden, we trudged through the bush for about eight miles and pitched our tents at 4 p.m. about one and a half miles short of the junction of two valleys, and about five miles from the head of the left branch of the Tutoko River. The sandflies were not as troublesome as we expected after the terrifying description one hears, but this may be accounted for by the lateness of the season and the plentiful use of Muscobane soap.

We were up at 5.30 a.m. the morning after our arrival at this camp, which was situated alongside a dry branch of the main Tutoko River.

Jack Cowan, assisted by myself, set to work to make a bridge across the main river by felling three huge trees across it; this made a good bridge.

We left for the head of the valley at 11.30 a.m. We only took a preliminary trip to spy out the land, owing to not having any description of this valley, except one by Malcolm Ross, which is most vague. We reached the top of the valley at three o'clock, and as far as we can ascertain this was the first trip to the actual head of the valley for the purpose of looking out a camping-ground.

We crossed several streams on the way, and the bed of the river afforded some interesting boulder-climbing. We rested on a big square block of rock in the middle of the valley, and after some refreshments commenced the return journey, arriving at the camp before dark. The journey to the head of this valley convinces one that there is but one or two routes to get up Mount Tutoko any height, in fact the miles of precipices become a tantalizing sight to one used to being able to climb up almost any steepness or difficult rock walls and precipices. The rock in the Tutoko district is the hardest crystallized granite. One is reminded of this when trying to hop off one boulder to the other in the river-bed, which the best Alpine nails fail to grip, preventing one getting any purchase for a jump. There is a small dry glacier at the head of this valley to the left of which a



SANDFLY POINT, HEAD OF MILFORD SOUND.



BASE CAMP AND MOUNT TUTOKO.

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gully filled with ice rises about 5,000 feet from the valley at an angle of from 35 to 50 degrees.

This looked to be the only possible climb in the ice-glazed conditions so late in the season, so I had made up my mind to tackle this with my friend Farquhar, and it was arranged to take the small 8×10 tent up to the head of the valley. The following day we packed the swags for the journey and rested; but on March 30th we arranged that Farquhar and I should push on to the head of the valley and prospect the climbing for the following day, and that the three porters should bring along their loads later. We left the base camp at 6.30, and, taking it easy, reached the big square rock at the head of the valley at 10 a.m. Here we left our rucksacks and commenced the climb of the couloir. We crossed a buttress of smooth rocks to cut off some of the ice, and after proceeding over several streams of avalanche deposit we took to the rocks, as it was quicker climbing than by cutting steps in the ice. We got about half-way up, and came to the conclusion that we had seen enough to justify our climbing it the following day. We returned to the foot of the couloir, where we saw the porters on the glacier, and as we had some time before dark we went up the right side of the dry glacier.

We returned to the head of the valley about five o'clock, but no tent had been pitched, and two of the porters were kept waiting owing to a misunderstanding as to the right spot for the camp. We let the men go, and set to work to make a comfortable resting-place at the end of

the bush. It was nearly midnight before we retired to rest. We were slow in getting away the following morning, and at eight o'clock we plodded up the moraine and ice-slopes once more. We took to the rib of rock to the left of the couloir as soon as possible, and quickly reached the spot from which we had turned back the day before.

Above this, and nearing the top of the rocks, we had some difficult climbing; my ice-axe slipped off a ledge and fell down the precipice, lodging on some snow. I climbed down and got it, and after leaving the rocks altogether I had six and a half hours' quick step-cutting without rest. It was my friend's first experience on ice, and although he shaped fairly well, it was necessary to keep watching him on so steep a slope. The slope promised to be a tough step-cutting problem; it was getting late, so we had to be content with just getting on the crest of the summit which formed an easy slope of ice and a convenient pass into the Hollyford Valley. We hurried down as quickly as possible, but it was impracticable to go down one piece of the rock we had climbed up; this made one and a half to two hours' extra downward step-cutting on a very steep part of the slope, with pieces of ice and stones falling from time to time; one piece of ice grazed my companion's leg, therefore we were very happy again on reaching the rib of rock in a climbable place once more.

We hurried down, but darkness overtook us half-way down the rocks, and it made us do a lot of guesswork in getting off these rocks on to the

ice again, because most of the side overhangs where it meets the ice and the rocks are very smooth. It was about 8.30 p.m. before we joined Jack Clarke, who had brought a lantern to show us the way and some welcome hot soup to cheer us up, and we returned to the high camp by 9.30 p.m.

It rained during the night, and a change for the worse occurred in the weather. The aneroid dropped, so we decided to take all our equipment down to the base camp, which we reached at 4 p.m.

It rained all night and next day until about 3 p.m.

The following day we left for the Tutoko gorge and glacier at 9 a.m., up a narrow gorge or valley one and a half miles away from the camp. While Farquhar and Jack Cowan were looking for a camping-ground in one part of the scrub-covered moraine, I was looking in another part for a camping-ground; but realizing that we had come too far up the valley, I continued up the ridge to prospect up a route to the bivouac, leaving my companions to seek out a camping-place. I saw the smoke from the camp fire which had been lit, and hurried down to camp just before dark.

The height was about 1,750 feet above sea-level. Next day we returned to the base camp, but the following day left for the bivouac at 9 a.m., reaching the high camp at 11.15 a.m., and, after one hour's rest, pushed on and took provisions to a spot near the high bivouac. We arrived back at high camp at 4 p.m.

We left for the high bivouac at 8.30 a.m. owing

to early wet mist. I went ahead to look for a good bivouac, and discovered the Murrell-Williams Bivouac, but we bivouacked in a much more convenient place high up the slope near good water. Leaving my swag, I descended to help with the others' swags (as they threatened to give up the struggle and camp lower down), and afterwards we all agreed on one spot selected by me. We arranged that Clarke and Farquhar should pitch tents, etc., while I climbed on and cut or kicked steps for the following day. In doing this I climbed to within 1,500 feet from the ice-peak summit which Ross called Tutoko.

After leaving my companions at the high bivouac, the route taken was up an open gully of snow and rock, which, after climbing about 500 feet, brought one to a large plateau of ice and snow which fed the glacier. The twin summits of the peak looked fine at the head of the plateau. There were surprisingly few crevasses, and the snow was in ideal condition, enabling me to walk at a fast rate.

A crevasse stretched nearly the whole way across the foot of the ice-peak, but a good firm snow bridge made an easy passage. The end of the crevasse was a wind-swept hollow about 40 feet deep, forming a semicircle; at the back of this there were jagged rocks, one with a square top and steep walls. Next to this another sharp piece of rock, about 100 feet higher than the head of the snow-slope. I climbed up a narrow snow-couloir and gained the divide of the ridge.

It was a charming scene; the precipice beneath me dropped as far as the eye could see down into a valley, which I took to be the Hollyford

Valley. (This turned out to be a new valley, a branch of the Hollyford.) There was a good stretch of flat country, with a fair-sized river flowing down it, between me and the next peak.

Climbing back to the head of the glacier, I proceeded to chip steps across the base of the ice-peak, about 1,500 feet from the summit, with the intention of working to the left shoulder on the morrow, and it looked very promising. I left off chipping steps at 3.45, as previously arranged, so that I could get back to camp for tea. If it had not been for this arrangement I could have climbed to the summit that night.

It never occurred to me that we could get rain that night, so cutting the time 3.45 on the hard snow, I turned back in the best of spirits and expectations for the climb, and ran most of the way back to camp, reaching it in good time, despite being delayed by fog.

This big icefield was quite a revelation to me, and the contrast between the smooth plateau or slope without crevasses and the badly broken glacier below is a very marked contrast. From this plateau it is easy to decide which peak is the most difficult, viz. the real Tutoko, but it is not easy to decide which peak is the highest, the one across the broken part of the glacier, or the one I was on. It is very much easier to climb than the peak across the valley glacier, and the approach to the peak across the valley glacier is very difficult, while the slope up to the peak itself is very badly broken, making it an exceptionally difficult if not dangerous climb.

In some seasons, or certain avalanche time of

any season, the ice-face of that peak across the glacier (which I think is Tutoko) would be very dangerous from ice and snow avalanches; and before tackling it by that face I intend to do more exploration of the district. We enjoyed a good tea and retired to rest, but awoke early in the morning with bad weather—drizzling rain. Clark went down, and Farquhar and I hung on in hopes that the rain would blow away, but as the day wore on it developed into a deluge, and we packed up and took the tent, etc., down with us, starting at 2.40 p.m., allowing us just time to get back before dark.

It was a wet weary trudge down, and the greatest caution was necessary on the wet grass and scrub slopes. There were a large number of flood waterfalls from the miles of precipices. We saw the welcome smoke of the high camp just before dark, and our companions, Cowan and Clark, had lunch ready in a few minutes after our arrival.

It surprised me to see how the whole mountain-side became flooded. The small streams had swollen into torrents, and the gorge near our high camp was a beautiful sight as the water rushed down to the Tutoko River below. The vast expanse of time that water has taken to wear out circular grooves of the hard granite this gorge is made of makes one realize that the age of the Tutoko Valley is lost in geological antiquity.

It rained all night, and we began to wonder if it would prevent us crossing the stream lower down. Luckily, however, it stopped raining for four hours in the early morning.

It was now clear to me that it was too late in



MOUNT TUTOKO ICE-FACE.



TURNER'S DOUBTFUL CAMP, HOLLYFORD SIDE, MOUNT TUTOKO.

the season to do any more work, or to get any more good weather, so we made the high camp secure for next season, and started for the base camp at 11.15 a.m., and after a wet trudge we reached our camp at one o'clock, but we had to ford the Tutoko River because the previous day's flood had washed our bridge, made of three trees, away down the river, showing how high, swift, and powerful that river can become after two days of heavy rain.

On Tuesday, April 8th, we made the base camp secure for next season, and left at 10.30, reaching the forks of the Rivers Cleddau and Tutoko at one o'clock. From this spot we had a good view of Mount Tutoko, and that was not the peak that the Ross party attempted and called Tutoko. We reached Sutherland's at three o'clock, and invited the old hermits, Mr. and Mrs. Sutherland and family (daughter, granddaughter, and son) to a banquet at Sandfly Hut, which was very interesting. The party stayed until the following afternoon, and when I saw them off on the boat back to their lonely home, hoped that we would have more banquets and interesting chats like the one just ended.

The following and last day at Sandfly was spent in drying tents and packing, but we managed to get half-a-day's fishing in Milford Sound, and had a good catch.

The ledges of rock, 20 to 30 feet below water, that jut out from the precipices are feeding-grounds for the fish; and if the boat drifts out beyond these ledges the line would need to be 1,000 to 1,500 feet long to reach the bottom.

We called upon the Sutherlands with some fish and to say farewell, and the following day started our first section across Lake Ada's clear crystal water to Quinton Hut, where we saw the famous Sutherland Falls, discovered so long ago by the sturdy pioneer Sutherland. The next day over, the pass was in very heavy rain, no view, but a weary wet trudge to Pompolona Hut, a well-kept hut. "Good cooking and good bread made up for wet clothes as heavy as lead."

We left for Glade House early the next morning, and had a welcome day's rest waiting for the boat across Lake Te Anau—Captain Roberts runs this Government boat across the lake, and he is a well-read, interesting man, who makes the trip very interesting, no matter how cold the breeze blows or the rain falls. The journey from Te Anau to Lumsden was in very cold weather, and we were glad it got it over and back to Dunedin. One interesting thing on this journey was our call at Murrell's on Lake Manapouri. The motor service is excellent.

It takes practically fourteen days to get to Milford Sound and back again to Wellington, and it is unfortunate there is no quicker way of getting there, although in good weather the scenery over the Pass would be very fine. The Sounds in my opinion have been formed by earth's pressure from different directions in the Sounds' district, and afterwards the valleys have no doubt been polished by glacier movement. It would take ice about 10 miles thick to be weighty enough to groove out these precipices one sees on every side of these valleys and sounds.

There is no doubt in my mind that the Tutoko and other deep valleys have in some prehistoric age been part of the system of Sounds, but this must have been millions of years ago, judging by the stream-worn hard granite rocks on the bed of Tutoko and other rivers. When quicker transit comes along these remote parts will be a source of pleasure and health to many people. The mountains in the Tutoko Valley rise sheer from the valley, and to climb Mount Tutoko, 9,691 feet, it is necessary to climb over 9,000 feet of mountain. This is not understood by anyone except the man who takes on the task. Tutoko, from the Tutoko Valley, affords twice the climb that the Matterhorn does from the last hotel, and the New Zealand Alps are bigger climbs than any mountains to be found in the Rockies or Switzerland, and afford quite as much climbing as the Caucasus, although the Caucasus are about one-third higher above sea-level. I hope the Government will grant more money now the war is over to put all the tourist and health resorts of this country in good order. Mountaineering will help to keep down the plagues so prevalent in the world at present. Judging by the great number of New Zealanders who have done bush travelling and visiting remote parts, I am quite sure it would pay if the Tourist Department would add the Tutoko Valley extension to the Milford Sound trip; it would afford one of the best trips in New Zealand, if not in the world. These Sounds must be explored more, and connections made; it is New Zealand's duty to future generations. I hope my expedition to Tutoko, which is the

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first serious expedition, will not be the last. Hitherto the would-be explorer has just hustled up and down the Tutoko Valley as a kind of hole or trap one should not be caught in; but the scenery is unique even for New Zealand, and a month's camp or more can provide plenty to do, provided climbing and exploration is the object.

CHAPTER XI

SECOND MOUNT TUTOKO EXPEDITION, 1920

The Miss Reid mystery—I organize a search-party—Climb McKinnons' Pass precipices—No trace—Arrive Sandfly Point—Tutoko base camp—High camp Bivouac—Climbing Mount Madeline—Taking prismatic bearings—Summit Mount Madeline—Avalanche snow—Negotiate Sahrund—Successful day—Explore new snowfield—Discover new lake and waterfall—Discover new valley—Return to base camp—Attempt west face precipices, Mount Tutoko—Return to Sandfly Point—Harrison Cove camp—Attempt Mount Pembroke—Slept on tree-trunk all night—Bushed on precipices—Return to Sandfly—Search McKinnons' Pass precipices—Still no trace Miss Reid—Milford Sound track—Return Wellington.

AFTER the preliminary climb to the bivouac of Mount Tutoko in 1919, and my solitary partial ascent of Mount Tutoko at the same time, it was with great sadness of heart that we packed up in the rain and descended to the base camp; the washing away of the very big trees which had formed a bridge made us go carefully across the river, with respect for its power.

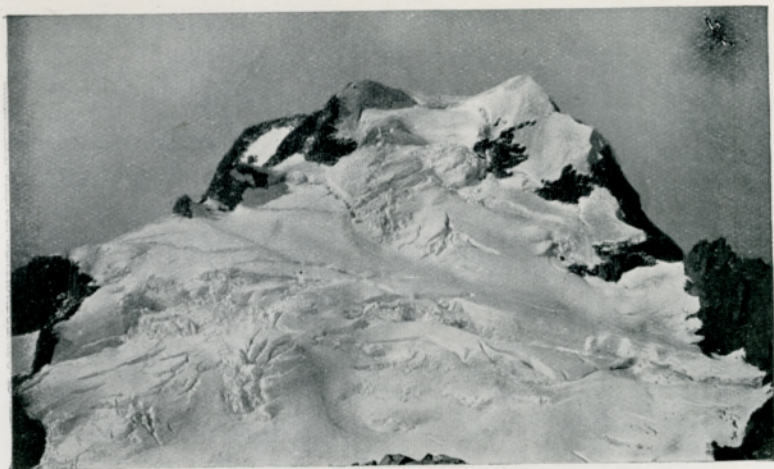
The newly climbed pass at the head of the valley was all that we accomplished, but it was a difficult climb of which we were very proud, as it was a new pass into the Hollyford. Our camp was left in very good order, so that we could return again in 1920 and commence where we had left off.

About the time it was my intention to go to

Tutoko, it was reported that a Miss Reid, M.A., of the Dunedin University, had been lost on the Milford Track. The Tourist Department arranged with the Commissioner of Police that the Dunedin Police Superintendent should place his best men at my disposal, and after selecting Messrs. Hamilton and Dunford, and making inquiries from some of Miss Reid's party, we left Dunedin at 9.30 a.m. the following day. We had an interview with the Lumsden constable, who had just returned from a ten days' climbing search and reported the case as hopeless—twelve men had been searching for ten days in every available spot, and it was considered to be absolutely impossible to find her alive, while the chance of finding her body was also very remote.

A special trip of the steamer was put on the morning after we arrived by Mr. B. M. Wilson, Tourist Department Manager, so we arranged to start at 5.30, and we arrived at Glade House about 10 a.m., and left in the afternoon after a hurried change for Pompolona Hut, reaching there for tea. We found it difficult to make an early start as the lady of the hut insisted on giving us breakfast before we started, and our start was about five o'clock. I separated our party at the base of the precipice, and while they searched the bottom I climbed up the precipices straight up from the lower end of the track, coming out on the top of the pass, after searching the scanty ledges on my way up.

I met the party on the summit and searched with them, all over the top, and down under the slopes of Mount Balloon, finally the only



MOUNT MADELINE ICE-FACE.



THE AUTHOR TAKING CINEMA PICTURES IN BROKEN ICE ON MOUNT
MADELINE ICE-FACE.

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place not searched was the mountain pass lakelet or lagoon, some 30 feet deep. We had nothing to search this with, but swimming out into the middle, and diving down a few times under the water, it was so clear that I was able to see to the bottom, and this finished the search for that day. We descended to the Quinton Huts for the night, and returned next morning, and while three of our party searched beneath, Cowling and I searched the ledges on the precipices, but without finding Miss Reid, although we saw a likely looking object on an almost impossible place to search, and decided we must leave that spot until our return from the Tutoko climb, when we expected to be in much better condition.

The following day we went on to Sandfly Hut and packed up ready for the Tutoko camp. We left fairly early the following morning, and gained the camp through a much improved track through the bush, which my men had made since last year.

We started next day and went to the high camp, and on to the bivouac the same night, camping in lovely weather on the same spot that I had discovered amongst high boulders below the rounded rock where the snow was fast melting. This bivouac would not always be a good one, but it was all right this year, although a trifle on the cold side owing to a ledge of snow being opposite the camp. Our tinned goods left under the rock from last year were useless, but we had brought a fair swag back, and it had been arranged that Jack Cowan would go down and bring fresh food up. Cowling had stated that he would rather lose his job than come up to that bivouac again,

so I knew by this that Jack Cowan would not go down for food.

I made up my mind to make the very best use of the good weather, and started early next morning for our climb, which commenced very well, as the snow was in very good condition across the plateau. The wind-swept grooves with the fantastic rock gendarmes like sentinels overlooked the sheer precipices down into the new valley. We crossed the first snow bridge easily and climbed steep rocks to get up on the second crevasse running across the bottom of a spur of rocks. We were very nearly deciding to go right across the face to the left, but on reasoning that I could see the difficulties on the right, and knew they were bad, but that I could only guess at the difficulties on the left, the right side route was taken, and it proved as hard a climb as one could desire, especially when the object was to get on to the summit as soon as possible. We came to some rocks which were the top of one of the most vertical walls of rock on the top of which one could stand.

We finished a tin of pineapple on this flat rock and left our record on the tin, and after some delicate ice-work we kicked and cut our steps up some very steep snow on to the face of the mountain, where we found the snow soft and the plug in the snow very hard. The snow-corniced ridge on our right was steered away from, as the precipices are sheer down to nearly sea-level. It was not a long climb as New Zealand climbs go, and we arrived on the summit about one o'clock. The cracks in the snow near the summit denoted

schrunds or cornices, and care had to be taken, and I tested the snow as near the summit as possible, hacking it away with my axe. After taking prismatic compass bearings of Lake Alabaster and the peak to the north-west, which looked to be the real Tutoko, we descended toward the lower second peak, but my companions thought we had done enough in gaining the highest summit. The view of lakes, bush, and Hollyford River was fascinating on account of the difficulty of travel. The peculiar shapes of the precipices and mountains were a distinct feature of this part of the most Southern Alps. It was very wild. The descent was unpleasant because of the risk of the snow avalanching off the mountain; we had to go straight down facing the snow, and use the axe-shafts as anchors to make sure the face of the snow did not avalanche off. It was slow work, so rather than go down the steep part that we ascended we decided to shoot the bergschrunds which cut across the mountain face. Cowling was forced to slide as he got too near before taking off. I steadied him with the rope as he let on the bottom lip; it gave me a better chance, and my glissade started higher up the slope, and by turning my side face towards the slope I was able to fall on my hands and knees, and with the pick of the axe secure myself on the lip of the schrund in proper schrund-negotiating style. The second bergschrund I went down first, and managed to kick steps down low enough to be able to jump the few feet beneath. It was plain sailing after this, and our pace quickened because there were many risks of falling rock and ice from the soft

nature of the snow and the hot sun. The overhanging top lip of the schrund looked formidable. We enjoyed the climb, and were back to the bivouac in plenty of time before dark. The scenery all through the climb was very rugged, even for one accustomed to New Zealand mountaineering, the reason being the exceptional sheer downs that are to be found in this district, covered with dense bush for the first three or four thousand feet, and the fantastic wild and unexplored regions make it the most inaccessible mountain climbing in New Zealand. The following morning Cowling, Cowan, and myself started for an unexplored snowfield to the south-west of our camp, which commenced to branch off about 1,200 feet above our bivouac. After two or three hours' walking up steep slopes Cowling and Cowan decided to rest after lunch in a wind-sweep; and not wishing to half do the exploration I left them and continued on my way just above the wind-sweep. I looked over a chasm, and it revealed the most amazing surprise I have ever had in all my climbing career—down in the distance, about three to four miles away and quite 3,000 feet beneath me, was a lake about two miles long and three-quarters of a mile wide, out of which a waterfall was flowing. In two leaps it met the valley 2,500 to 3,000 feet below, and it was a good permanent flow of water; not spray like the Sutherland Fall late in the season, but a fair volume of water. It was the most thrilling sight and prettiest scenery that I have ever seen in New Zealand or elsewhere, and it made me shout to the others, as these were two important discoveries. We estimated the falls to be 2,500 to



NEWLY DISCOVERED LAKE AND
WATERFALL AND NEW VALLEY.



TURNER'S CAMP, DONNE GLACIER. MOUNT
TUTOKO IN BACKGROUND.

To face p. 236.

3,000 feet. I left on the ledge a Rex cheese-tin with a note, "Discovered February 1, 1920."

I proceeded down the newly discovered snowfield and round the rock peaks to try and get to this lake; but after descending about 2,500 feet I was stopped by an overhanging precipice, and returned in the fog with nothing more than an eventful few hours owing to climbing down an unexplored, steep snowfield in the dense mist. One had to steer carefully. The finish of the snowfield ended in the precipices of the Tutoko Valley, with a waterfall (in rain or thaw time) leaping hundreds of feet. We returned to camp, and as my party considered the bivouac too difficult to come back to with more food, we left for the base camp. After a day or two's rest Cowling and I went up the Tutoko Valley and camped in the same place as 1919, at the end of the bush on the edge of the Mount Tutoko side of the river. Next morning we left to find a route up the precipices. We climbed up some hard avalanche snow behind our camp, and I was cutting down the edge to find a way from the snow on to the rock when Cowling declared the climb to be impossible, and decided to return to the camp. I took the food and continued my way up the precipice a long way past the place he pointed out to be overhanging. Then, when it became a question of returning or sleeping out all night, I decided to return. I had a tussle with the precipitous bush before getting off the bottom of the rock face. The precipices of the Tutoko district are entirely different to those of the Hermitage district, and one cannot get men capable of the work, especially

as the inevitable 40 lb. or more has to be carried on the back. We had a snug camp that night, but bad weather followed the warm night and drove us down to the base camp, which, owing to my companions' reluctance to carry a swag up to any height, made me realize that my season's climbing was over.

While out fishing on Milford Sound, Mount Pembroke looked tempting, and although it is only 6,700 feet from sea-level to the summit there is quite a lot of country to cover to get to the base. I persuaded Cowling to have a try to climb it, although we had no knowledge of anybody having climbed it or any information about how to get there. We rowed to Harrison's Cove, and Cowan, while fearing a strong wave might knock the old boat to pieces, also gave us a graphic picture of how the shoals of grampus frolic around the boat on some occasions when they are rowing over Milford Sound. We unfortunately did not meet them, and arrived at Harrison Cove early in the day. After pitching the tent I proceeded to find a route to climb our peak, and returned in the afternoon too late to move our camp any nearer even if my companions had been willing to swag that far; besides, it would have meant another day. After consideration I decided to attempt the climb from the Milford Sound water's edge, and retired to rest and dodge the sandflies. We arose two hours before daylight. There is the real dawn and the false dawn in this district; the latter comes from the reflection of the sun on the ice-cap. While trying to persuade ourselves we were in need of breakfast we heard grunts and splashes,

the grampus had actually come into Harrison's Cove; unfortunately, it was not quite light enough to get a close view of the fish, and when we ran to the mouth of the river they all made their way out of the cove, and the splashes became less distinct, and our thrilling incident came to a close. We quickly packed up and started for our climb, wondering if it was our fire or the fresh water of the mountains that had attracted these big fish, described as 12 to 14 feet long.

After about four hours' travelling we boiled the billy, and Cowan, who would not climb, but made up for it by showing us a turn of speed on the level, rested at the junction of the rivers. We went up the one towards Mount Pembroke Glacier, and crossed to the other side; but instead of getting up into a high valley, we were stopped by a waterfall, with 200 to 300 feet of a drop, the glacier drainage. We then took to the very steep, thickly covered, sharp spur on the right of this waterfall. Cowling's boots were much too heavy for this bush, and he felt the climb very seriously; it was too much for him. It afforded all kinds of climbing, and nearing the top we were forced over some out-jutting faces of rock in places overhanging; it was a rare tussle, and nothing to show for it, because the same amount of energy would have taken us to the top of Mount Pembroke if we had taken what we afterwards discovered to be the proper route. We tackled the snow and the sharp ridge, but time was going on, and my companions' anxiety to sleep on the river level was becoming more pronounced. At last I arranged that if we found the end of the ridge was overhanging and it forced us

down on to the snow, as the snow was beginning to freeze, it would take us too long, and we would have to bivouac and wait until morning, or return. The latter course was agreed to, and we turned back about 500 feet from the summit. It then became a race against time, but the darkness came on us very suddenly as we entered the dense bush. Luckily, I had insisted upon roping up if Cowling wished to proceed farther; presently Cowling found himself dangling in space, and after pulling him on to the steep slope, I pointed to the only place that seemed to afford a perch, and insisted that we should stop on that spot whatever it was. As we neared it we found our perch was a big tree jutting out from the precipice, on which we managed to find room, on its base. There was just enough room to lie down on the damp leaves, one ice-axe on each side, and the rope coiled under us. Unfortunately, Cowling left his lantern and candles behind, so it took us all our time to keep warm with my lantern. We enjoyed a tin of salmon and some bread, and drank what cold tea was left, no water being obtainable, although we could hear the noise of the waterfall to the south below us. It was a lovely night, and, despite the discomfort, I felt in fairyland. The kaka parrot sings at certain times of the year, and they were in full song, and you only need to be up on one of their trees to feel yourself in the middle of their company. They called to one another across the cliffs, and although up to then the nightingale of England and the bell bird of New Zealand were my first and second leading songbirds, this parrot's

call was purity of tone itself. There is something grand and full about its rich melodious three notes ; it is truly enchanting. All kinds of calls and sounds could be heard, but they all formed the base of this chord of sound which harmonized with the surroundings, because as daylight came we still heard the call. The rata was in full bloom, such a deep rich red, distinct from any other red, and seeming to be toppling over on the precipices. A naturalist should go into these delightful places to realize what the beauty of nature really is and the feelings on these lonely spots. The birds and their music had kept us from worrying about our position ; it was one of those spots one becomes so fascinated with that one forgets everything but the immediate surroundings. I wish I had a more able way of expressing my feelings, as I am afraid my description does poor justice to the experience.

We had lived on a parrot's perch for one night, and although not feeling as full of song as they, we were very reluctant to move from the spot, except that we had to get down to the valley. It is surprising we managed to get down on to that tree with safety, because it was a severe climb to get up on to a decent place to continue our journey. We had no idea what we had before us before we got off that cliff. My idea was to go more north and get up higher, but somehow we managed to get down too soon, and it became a serious tussle, down and up too many times to be safe. It was heavy work ; we had to keep the rope on or Cowling could not have made progress. At one stage we came to two pieces of rock about 12 to 14 feet high sticking up like the first and second finger,

the lowest piece close to and lower down the steep grass-covered slope. I had handled the rope while Cowling climbed down on to the second one, and had followed him on to the second piece; there was scrub all round, and very long heavy grass round the bottom of the pieces of rock. After coiling the rope on the top of the second piece of rock and letting it out for Cowling to climb down the rock, all at once, without warning, Cowling jumped; like a flash the rope was run through my fingers, when I instinctively planted my right foot firmly on the rope as it had nearly all run out. Cowling dangled in mid-air until I could let him drop the remaining few feet on to the precipitous slope, which it took him all his time to hug on to under these favourable circumstances. I asked him why the deuce he wanted to jump at such a place when, as he admitted, he could not see the slope for long pampas-grass or heavy scrub-grass. He said we must take a bit of risk to get off the slope. I disagreed on the score that no man is justified in taking a leap if he is unable to see where he is going to land. This kind of risking it is the most fruitful way of joining the long list of fatalities that New Zealand dense bush has claimed. We rested a few minutes, and endeavoured to pick a route, and as we climbed across a maze of supplejacks and lawyers I began to feel that the spider had us in its web for having dared to climb up this most inaccessible bit of bush precipice. It is very difficult to describe our fierce struggle, but one or two things stand out quite clear. We were on the edge of a huge park of overhanging cliffs, and in our effort to find a

way down we had to climb straight down on saplings not much thicker than one's arm, just like getting down off one parallel bar on to another. I had taken a hand in the leading: we had to take the rope off, and Cowling was about to give up all hope of ever getting off the precipice. Those terribly heavy boots of his made me feel very sorry for him. He said, "I don't think we will ever get off this place. Do you think anyone will come to look for us?" I replied that nobody in Milford Sound could climb this cliff, that we had got into the place and we would have to get off. He said, "What about adopting your suggestion when we were starting out from the bivouac in the morning to go across the top of the waterfall?" I replied that it was a serious climb to get back to there, but if we did not get off within half an hour I would try that as a last resource. We must have climbed down 200 to 300 feet about five times, and it wanted some determination to keep going. One thought was uppermost in my mind: I had built a beautiful home 500 feet up on the hills of Wellington, overlooking 60 or 70 miles of lovely scenery; it took two years to build, and my family had only just moved into the house. It was the determination to live in that house that made me fiercely resolve not to give up, and the danger of my companion giving up made me take extra risk and go down some trees over an overhanging part of the bush, which would have been a deadly struggle to get back from if it failed, and it was a question if the saplings would hold us. We managed to get down, and on a

very steep part which looked like brown moss-covered rock from up above. I put my foot on it, and to my great delight it was brown moss about 4 to 5 inches thick, accumulated by the ages; the next moment I shouted to Cowling, and was using the very steep face of rock just like a steep snow-slope, and soon Cowling let himself drop off the last sapling and was following me. This got us down the most awkward piece of rock, but Cowling and the moss slid off the rock about 15 feet to the bed of a dry creek, and for once his very heavy boots saved him breaking his ankles. Our troubles were over. Crossing streams, we made for our junction camp. Cowan's fire had gone out, and there was no food, so we had a bath in the cold mountain stream and gave the sandflies and mosquitoes the feed of their lives. We packed up and made tracks for Harrison's Cove; we had spent about ten hours in a struggle to get down 1,500 to 2,000 feet, and wanted food. We met Cowan coming to meet us, but he did not bring a scrap of food. We all returned to Harrison's Cove, and were glad that Cowan had been wise enough not to sound the alarm. After a good feed the boat arrived; we shipped our camp in the old boat, which seemed like a stately craft as it neared Sandfly Point. We were none the worse for having been bushed on the precipice. I read in the *New Zealand Alpine Club Journal*, 1921, that Messrs. Talbot, Graves, and J. Lipp climbed Mount Pembroke after one of their splendid trips across from the Hollyford, over the head of the Cleddan Valley to Milford Sound; it would have saved us a lot

of trouble if their trip had been described. The only information that we could find about anyone having been trying to climb Mount Pembroke was that of four Dunedin men, who never got near to it after three days. Mrs. Sutherland said nobody had ever climbed it. It is a very fine peak, and I will climb it on some other occasion by the more simple route taken by the Graves-Talbot party. The peak is much too high, and the distance too long to tackle from the waters of Milford Sound, especially via the very steep ridge; the climb is like many more in that district, three-quarters bush and one-quarter mountain climb; and if one hits off the right spur the climb is easy. In all these climbs the bush is a very serious trouble.

We had a good day's fishing as a rest, and fishing at Milford Sound is good sport: a groper, about thirty blue cod, one large octopus, etc., was our catch. The fish are caught as they feed on the ledges of the precipices, probably washed out by the water. We had a rest for a day and packing at Milford Sound, and then continued our journey on to the Quinton Hut, where we had arranged to continue the search for Miss Reid. We had seen what looked like a body up on the very awkward spot on the Quinton side of the precipice which we had been unable to reach on our way over. I descended underneath the cliff, climbed up the last slight crack with scrub in it out on to the precipice, and, deciding that it was easier to go straight up than to go back again, I had a very stiff climb, but there was no sign of Miss Reid. There have been several mysteries in that

wild district; the rugged nature of the country makes searching a hopeless task. On the Quinton side of the pass the boulders that have been shed by the precipice are overgrown by trees and scrub, so that one cannot get over them to search. We crossed the Milford Sound track to Glade House, caught the Te Anau steamer, and hurried home.

CHAPTER XII

THIRD MOUNT TUTOKO EXPEDITION, 1921

Left Wellington—Lake Te Anau—Sandfly to base camp—High camp—Swagging provisions—Remarkable new bivouac—Mist prevents sight of waterfall—Reconnaissance of Mount Tutoko—Pass discovered—Driven back by snowstorm—We cross pass—Descending steep couloir—Camp on Donne Glacier—Climbing Tutoko precipices—Threatening storm—Night bivouac—Heavy snowstorm—Driven across Hollyford precipice in snowstorm—Snow-covered steep scrub—Doubtful camp—Hollyford precipices—Crossing Hollyford—Bush struggle—Found Hollyford track—Pyke River—Endless Lake McKerrow track—Meet McKenzie Bros.—Struggle ended—Martin's Bay—Return up Lake McKerrow—Hollyford track to Elphan's Bay—Steamer *Glenorchy*—Lumsden—Back to Tutoko Bivouac—Climbed five rock peaks—Attempted cinema work—Weather broken up—Finish season—Return Sandfly—Home.

PARTY: S. Turner, D. McPherson, F. Milne, R. B. Collett, T. Hardy, N. S. Murrell. On February 7th I left Wellington alone, and met F. Milne at Christchurch on February 8th. I was lucky in getting F. Milne the day before my departure. We travelled to Timaru by the first express, where we stayed until the arrival of the second express, and proceeded to Dunedin for the night. We left for Lumsden by the 8.25 a.m. train on February 9th, and met D. McPherson and Collett at Gore *en route*, and went on to Lumsden, taking the motor to Te Anau, where we stayed the night. The Government steamer started across the lake at 7 a.m. February 10th, and arrived at Glade House in exactly one minute under five hours.

We walked to Pompolona Hut that afternoon, leaving Pompolona Hut for Quinton Hut early February 11th. It was a pleasant walk over the pass to Quinton Hut. Left Quinton for Sandfly on February 12th, and made preliminary arrangements to start for the climb. Left for Turner's base camp, situated six miles from Sutherland's; this is about 800 feet above sea-level, and the high camp, situated on the Glacier Creek, is 1,740 feet above sea-level. There are precipices to right and precipices to left, besides precipices across the valley behind us, with steep bush and scrub slopes and ice-face in front to the left of the steep face we had to climb to reach our bivouac.

Owing to my previous two years' experience of my party refusing to swag food to the bivouac, owing to the difficulties of the climb, I made a special journey with MacPherson and Collett, and climbed up the scrub and fixed 200 feet of rope to the scrub on the rock face, while Collett cut a track on the top. We moved up to the bivouac on Tuesday, February 15th, and reached the 1919-1920 bivouac, 5,040 feet above sea-level. While two of my party were pitching our tent I went on and discovered a wonderful bivouac 5,200 feet above sea-level, at the foot of a new route which I made up to the snowfield at a height of about 6,700 feet; this cut off about one hour's climb to the snowfield. The bivouac was an important discovery, and it is the best I have ever slept in. One huge rock had fallen on the top of two others, leaving a hole bigger than an alpine tent about 7 feet high at the entrance, tapering to 6 feet; there was a big boulder in the



TURNER'S 1921 BIVOUAC.

right place to put the rope round and tie it to thread through the tent—the usual way of pitching the alpine tent. Just below the tent, 6 by 8, there was a natural place to cook with the methylated cooking-stove, and just above this, where the huge stone had rested, was a shelf in which I was able to fix a lantern by just pushing it in the crack. The crack was a convenient sheltered shelf from the rain, on which butter, etc., kept cool even on the hottest day. The shelf followed through to where the stone overhung, making a hollow about 3 feet tapering to 2 feet wide by 9 feet wide—this was the side of the rock, and down by its side was plenty of room for an 8 by 8 square Shackleton waterproof tent 8 feet high. Here flat rocks had to be used to make the ground level, but only for about 18 inches at the foot, while at the head the ground sloped up, making a convenient ledge to place all one's small things—cinema camera, camera, binoculars, films, aneroid, compass, prismatic compass, and alarm clock (a most annoying but necessary friend). On the slope below our tent, on the valley side, were two other big square lumps of rock; one had room for sheltering another alpine tent. A convenient rock gave us shelter at the entrance to the tent, and rocks at the back of the tent provided good shelter. Numerous groups of beautiful mountain daisies and fair numbers of buttercups and other alpine plants and flowers too numerous to mention grew in wild profusion.

Water flowed in a perpetual small stream down a flat shelf of rock, with pools to wash in, or for drinking-water. If one wanted a bath one had

250 THIRD MT. TUTOKO EXPEDITION

only to climb another 200 feet up, and a small pool 30 feet long by 5 feet wide, and about 18 inches deep, was always full. This bivouac was on the bottom of a climbable ridge, which was an interesting direct route of our climb, on a shelf of ground about 30 yards wide at the foot of a rock wall, which extended two-thirds of the way round the bivouac ground. The top of the bivouac rocks was flat, and the whole of Mount Tutoko and its ice-fall could be plainly seen; one could also see a large number of avalanches crashing down all day and night. A good view of the Tutoko Valley was seen from the top of the boulders and some places on the ledge. On rainy days a small stream flowed within 10 yards. Four small rocks were placed just like seats, on two of which we got a flat rock and made a nice table, round which four could sit and dine. We secured about half a ton of dry dead snow-grass and laid it on the floor of the tents, and had the most comfortable bed I have ever had in the mountains outside a hut. With suitable tents this could be made a splendid place for climbing tourists. One or two members of our party came from the base camp in three and three-quarters to four hours, and that camp is only six hours from Sutherland's. The beauty of this bivouac was that we could reach the snowfield in half to three-quarters of an hour; this snowfield is a very big one, and as pretty as any in New Zealand.

As soon as we had pitched the tents down came the rain, and it added intensely to our comfort when we found that no wet got into the tents. After a peaceful sleep amid the roar of avalanches,



S. Turner.

N. Murrell. D. MacPherson. Hardy.
TURNER'S HIGH CAMP.

Collett.

we arose refreshed. No sandflies or mosquitoes were able to live up so high, which was a refreshing change, and the few that got into the folded tents and were carried up were soon extinct.

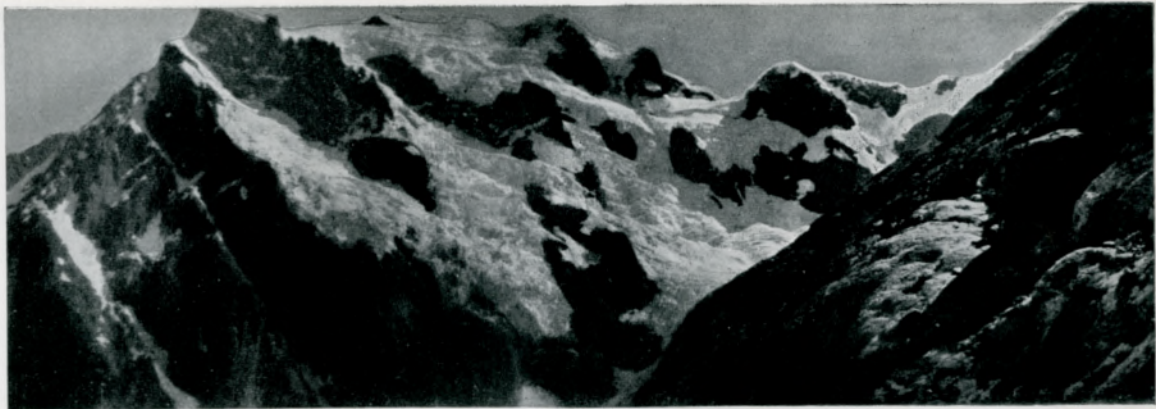
On Wednesday, February 16th, D. MacPherson, R. Collett, F. Milne, and self went up to see the pass and high waterfall and small lake discovered by me last year (February 1, 1920). We got to the gap on the precipice, through which we saw the waterfall last year, after steady going in misty weather, in one hour forty minutes. We all heard the loud roar, although three to four miles away, and we amused ourselves clearing the top of the pass of all the loose rocks and stones. The mist continued, so we returned to the bivouac at 1.30. Murrell was at the bivouac; he came up with a load of food, and Collett returned to the base camp to help him bring up more food. About three o'clock D. MacPherson, F. Milne, and self went to reconnoitre the route to climb Mount Tutoko. We crossed the head of the snowfield, and D. MacPherson took some bearings, while F. Milne and self went on to look out a way to get from the high snowfield to the snow-slopes leading to the head of the glacier, where I believed we would get a pass over on the big glacier which flows down the Mount Tutoko side into the Hollyford Valley. I had made this season's expedition on the strength of this belief, and no other route was feasible. We returned by 8 p.m. in the faint moonlight.

On Thursday, the 17th of February, 1921, we left the bivouac between 7.30 a.m. and eight o'clock, reaching the snowfield at 8.20. D. MacPherson,

F. Milne, and self intended to continue our reconnaissance, and went down a narrow gully on to the head of the snowfield, and after lunch we climbed smooth ice-worn rocks, and up to the top of the ridge. Then for the first time we proved that the way down to the glacier on the north side of Tutoko was possible. After boiling some tea and having lunch, we climbed down the couloir some distance and round the buttress of the peak up on to the saddle, thus making one pass and couloir down on to the southerly snowfield, and up on to the saddle dividing the glacier from the head of the Mount Tutoko ice-face; it was the divide forming the ice-shed between the Tutoko and the Hollyford Valleys. Owing to the risk of falling stones, we decided not to return by the way we had come, so we climbed over the buttress face of the peak, which is the shoulder of Madeline Peak, and Milne led too high up on to the shoulder before asking me to lead. I led across the snow-fields to the head of the snow plateau, where by careful cutting down an ice-bridge I found the only way down to the bed of the glacier, and got home by 7.30 p.m., after about twelve hours' good going.

On Friday, February 18th, F. Milne continued the reconnoitring to find an easier way for swags to be taken across, starting about 10.30 a.m., and got back about 6.30 p.m., reporting favourably; but saying it was a hard climb, and the route was a difficult one to carry our 40-lb. swags.

On Saturday, February 19th, we made our first attempt to place an advanced bivouac across the glacier, and after reaching the rock buttress leading



MOUNT TUTOKO ICE-FACE, SOUTH-EAST.



MOUNT MADELINE AND MOUNT TUTOKO, SUMMIT. DONNE GLACIER BELOW.

to the ridge, we planted all the tinned goods, and returned in a driving snowstorm, which had come on us while I was cutting steps across the steep ice-face, and continued until we got off the snowfield. The journey both ways took five hours, the net gain was a number of tinned goods planted three and a half hours on our journey, and we had done the journey to those rocks in three and a half hours in dense mists through the clouds, with a snowstorm part of the journey. This journey, done quickly, gave us confidence. We intended to start again early at daybreak on Sunday, February 20th, and follow the route up round the base of the peaks climbed last year. After crossing this icefield, the route led across another new snowfield at the head of a couloir, crossing the rock shoulder of the north-west side of Madeline Peak (first climbed by Cowling and I last year).

We had lunch on the top of the deep couloir, down which we had some difficult climbing with 40 to 45 lb. swags, owing to the broken ice and smooth rocks; the top of this couloir is the divide from which the ice on the south-west flows to the Tutoko Valley, and the ice on the north-east flows to the Hollyford Valley. Late in the afternoon we descended to the big glacier, luckily reaching a bivouac by nightfall, on the glacier moraine below the rock buttress of Madeline Peak, at a height of about 4,700 feet, judging by the aneroid. Our journey took several hours longer than we had expected; taking a surveyor with us, we expected to be delayed a little, still, we were much more seriously delayed than we expected; a party is as slow as its slowest member, and the pace was

very slow, climbing both ice and rock, particularly rock, and although we had a comparatively easy climb, one man being very slow made it hard. N. Murrell shaped splendidly, considering it was his first climb. A little more ice-work than we expected gave us some trouble, also smooth glacier-worn rocks; and we were glad to find a ledge of moraine on which we could camp for the night. We had a very slow, long day (6.30 a.m. to 7.30 p.m.), and it was a late bivouac, and consequently on February 21st a slow late start was made owing particularly to rain, which lasted until 8 a.m. We plodded up the glacier on the right, and afterwards to the left, coming to a rib of rock about 300 feet long by about 200 feet wide, and we soon came to a second rib of rock, and then zigzagged across the glacier to the rocks dividing two icefields, one leading down to the Stick-up Creek and branching down to the head of the Tutoko Valley ice-fall, the other feeding the big glacier about six miles long and about three-quarters of a mile wide, afterwards named Donne Glacier, most of which we had to ascend. The ice-fall at the top of the Tutoko Valley leads up to the peak on the shoulder of rock, and the ice-falls over down into the head of Stick-up Creek, which drains into Lake McKerrow in the Hollyford; and there is still another big icefield beyond the icefield of the Tutoko Valley. We rested on the icefield divide for lunch and left some things behind, and we put on warm clothing, for the wind was very cold. We then pushed on and tackled the rocks again, this time on the final peak. We were troubled all the time with very cold wind



DEEP COULOIR, DONNE GLACIER, AND MOUNT TUTOKO
FROM TURNER'S PASS.



ICE-SLOPES LEADING TO SUMMIT OF MOUNT
TUTOKO, NORTH-EAST FACE.

and slow climbing, one of our party being a slow climber—such is the luck of taking a man whom you have never climbed with. The rocks seemed to be newly split with no wear or denudation, just as though they had been formed by recent pressure.

About 500 to 600 feet from the summit we came to a small stream of water oozing out of the rocks, which was very refreshing. We reached to within 200 to 250 feet of the summit at 5 p.m. I was last on the 120 feet of rope; Milne and MacPherson were discussing the situation. The wind was very cold, and we realized that our slow climber would make the last bit a long affair, which would prevent us getting off the peak before dark, which would have been dangerous in the cold weather. I did not put in an appearance for some time when the halt took place, because I could see my companions wished to turn back, and this proved to be correct, therefore on putting in an appearance I asked for a show of hands of all who wanted to turn back. All hands went up. Milne was annoyed with MacPherson over this matter. They realized it was too late to reach the summit, and it would take us all our time to get off the rocks before dark—it was threatening cold weather. Once we turned I insisted upon everyone hurrying, and we descended all right for a few feet. Then I found our slow friend holding the rope so that Murrell and I could not move. Milne had told him previously that he was holding the party up on the rocks, and after a little explosion to clear the air we travelled better. I found an ice-bridge that helped us off the rocks quickly. It was commencing

to freeze, which would have meant step-cutting, so once on the snow I made the pace, and we ran down to the first rocks, picked up our things left on the ascent, and hurried down on to the first, and afterwards the second rib of rock, going down under the cliff in the darkness; keeping our steps with difficulty, we emerged on to the glacier and down to our bivouac in a dense damp fog. It was late, 10 p.m., when we arrived; we had a hurried meal, and we were soon asleep in the little alpine tent; but about eleven o'clock the snow started, and it snowed heavily all night, and very strong wind threatened to blow the tent up the glacier, and next morning we prepared breakfast late owing to the heavy snow falling, which by 7 a.m. was about 6 inches deep. My party made up their minds that going back to the Tutoko Bivouac was out of the question, and they wanted to go up the Hollyford and trust to luck that we would find food in the huts. We knew some University students had occupied the Howden Hut, and my party hoped food had been left. I did not like the idea of the Hollyford trip, but finally gave way to the majority on condition, which I emphasized, that they would go to Martin's Bay down the Hollyford, and I would pay for the party to be packed back over the bush track. This eventually saved the party. The descent to Martin's Bay was started at 7.45 a.m., and after a lot of exploration and difficult climbing through the snowstorm, we camped on the bush-level at 6 p.m. on February 22nd. This day of February 22nd was a most adventurous day. I was unable to do my usual half of the leading and step-cutting,

which up to now I had done on this expedition. Milne, backed by Murrell, did good work through broken ice. My finger-tips were worn through, making open raw sores on each of my fingers, preventing me using the ice-axe freely. I had only plaster for two fingers, and no one else had any. I was paying for doing too much rock-climbing practice before coming into the mountains, this having worn the skin on my fingers; then the smooth rocks I led up during the reconnoitring of Mount Tutoko completed the trouble. I did my best to be the adviser of Milne and Murrell, and warned them not to attempt to go down the precipices at the terminal face of the glacier, as I had seen these precipices from the summit of the peak climbed by us last year, and there was no chance of getting down the Hollyford anywhere there. Milne tried in one place, and was only stopped by a drop of about 200 feet, after a lot of hard step-cutting through a difficult broken icefall. He then asked me which way I would like to take. I pointed over the ridge on the sea side of the glacier. The nature of the precipices forced us up the glacier, back nearly opposite where we had bivouacked, and from there we ascended about 1,500 feet of steep rocks across a few scrub-covered ledges, everywhere covered in deep snow up over a shoulder. Then we came to another head of a side valley at the shoulder of a peak. The mist just cleared a little to let us see where we were going, and after all kinds of climbing we came to a smooth take-off, where we halted for some food, which was shared out very carefully.

Several days before we started on the climb I had appointed Milne to portion out the food, owing to the shortage (caused by lack of swagging), and no dissatisfaction was caused by this method.

From here we travelled for about two hours, and we were pleased to reach the bush-level. I called a halt at 6 p.m. so as to get a good sleep, and despite the wet we got a fire going, pitched our alpine tent, cooked food; Milne killed an inquisitive kea with a stone, and then we retired to rest. There seemed to be plenty of mountain parrots, weka, kaka, kapapo, and kea about, but they did not keep us awake. Now that we were off the mountains, I asked McPherson to lead through the bush, and gave him the lead with occasional spells from Milne.

We started down the middle of one of three bush spurs about 7.30 a.m. for the Hollyford Valley, reaching it in about four hours' steady climbing, being greatly relieved. We had food on the river bank before crossing, and MacPherson, who had done some good work in the bush, also did some useful work when we crossed the river (I was up to my chin). We had a three and a half to four hours' severe bush scramble before finding the disused track, and arrived at the Pyke Hut on the Pyke River just before dark. We rose on the morning of the 24th, and made an attempt at eating the kea, which had been left stewing all night; and with no food, we felt we were in for another eventful day. Milne and Murrell found the boat just above the disused cage, and crossed the river, and started one of the hardest 20 miles I have ever walked, up-and-down track on the lake

side, finally luckily preventing ourselves getting into swamps by Murrell finding a fallen sign and calling the then leader back. We had a discussion, and soon after we luckily found the McKenzies in a paddock, mustering cattle. We were soon in their hut devouring some food, which was very welcome. They said they saw MacPherson before he saw them. There is no telling what would have happened if we had not met the McKenzies on our side of the river. (I afterwards sent them a small boat from Milford Sound to leave on this side of the river in case any other weary travellers should reach that spot and not find the McKenzies there. While travelling to Sydney on the steamer a lady sitting opposite me at the dining-table talked of being on the s.s. *Hinemoa*, and I asked her if she saw a boat delivered to the settlers at Martin's Bay, and she said "Yes, it was pulled up on to the beach by one of the settlers and an officer of the *Hinemoa*.")

Afterwards we rowed the boat across the river and down a long narrow lagoon for about two miles to McKenzie Bros.' house, and tried to catch fish on the way. We arrived at McKenzie Bros.', Martin's Bay, late in the evening of the ever-to-be-remembered 24th. We not only needed the rest, but we could not get away because we required provisions and horses. Fish had to be caught, meat procured, and bread baked, as well as four horses shod. Milne was a very handy man. The McKenzie Bros. treated us splendidly. These two brothers are the last descendants of a family who resided in Martin's Bay, one of the most remote places in New Zealand. The *Hinemoa* should call

there once every four months, and unless it does, these lonely settlers will perish or be compelled to return to civilization and lose all they possess. They raise fat cattle, and it takes them six weeks to drive them through the bush to the Mossburn market. These men are a great example of the self-reliant hardy Scotch settlers. They had not seen anyone for nearly two years (except the *Hinemoa* officers) until we came along. The previous visitors were deserters, but they knew we were all right because they saw the ice-axes. Martin's Bay has its history. It is a wonderful health resort, and some day it will attract tourists up to the head of Lake McKerrow in large numbers, because the scenery is exceptionally beautiful, with miles of magnificent precipices, with fine cascades falling over the sheer faces of rock. It is something more than a tourist's walk from Elfin's Bay to Martin's Bay, but once at Martin's Bay, it will repay anyone for making the journey, which should not be taken lightly without a Guide. The track badly needs remodelling and clearing, as ferns 5 feet high are growing on the middle of the track in some parts, while the grading of the track round Lake McKerrow causes too much climbing up and down, quite unnecessarily. The going is particularly heavy, and our party's knees were all swollen by the rocky nature of the going.

We took four clear days' rest, then we left on March 1st. One of our party, who pretended to be ready to start the morning after we arrived there, took advantage of riding for the first two days from Martin's Bay, leaving Milne, Murrell, and self to row the boat, with which we had great

luck in rigging up a sail and sailing all the way up to the head of the lake, having a good feed on the way. This was a very different situation to our plight that day walking down the lake-side without food and in danger of there being nobody at Martin's Bay. The hut at the head of the lake was a nice one, and we had a welcome rest. On March 2nd we called at the Pyke Hut for our things, then we crossed the river on horseback. (We had only taken sleeping-bags and a few bare necessities with us.) Having lunch at the Pyke Hut, we pushed on to the middle hut, which was a nice shape, but had no windows. Milne and Murrell had the fire going when we arrived wet through. From this hut a grand view could be obtained in fine weather, one of the best views in any alpine region of the world, the centre of 50 miles of precipices, with the ends of glaciers and waterfalls falling over precipices. We travelled from the middle hut to the Houdon Hut, ascending 2,000 feet ; the walkers, MacPherson and I, had the fire going for the riders. I was anxious to let our friends have news of us, and started on the eleven miles' journey to the Greenstone Hut at 6.30 p.m. that night. It was a pitch dark night. I amused McKenzie by being able to tell him the time by my non-illuminated watch in the dark and by seeing the hut in the dark. We arrived there at 11.10 p.m. We were up at daylight next morning, and rode the 20 miles to Elfin Bay in time to see the steamer pass the landing-place ; we hurried the horses round the lake, and rode across the mouth of the River Dart. We had to be there by 4 p.m. to catch the steamer to Queenstown,

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and had just half an hour to spare. This journey is one requiring good bushmen, self-reliant and resourceful. It is 72 miles from Martin's Bay to Glenorchy, *via* the Houdon Hut and the Greenstone. There are six huts, as follows :—

1st	. 12 miles to the head of the Lake Hut.
2nd	. 8 miles head of Lake to Pyke Hut.
3rd	. 10 miles to Middle Hut.
4th	. 11 miles to Houdon Hut.
5th	. 11 miles to Greenstone.
6th	. 20 miles to Glenorchy.

McKenzie left his horses, and we caught the steamer at Glenorchy, after sending telegrams to all my party's friends and my family, and felt relieved that nobody at Glenorchy knew of our being missing. We arrived at Queenstown on the night of the 5th of March, caught the steamer on the 6th, and at Lumsden on the 6th, and Manapouri on the night of the 6th. I left Manapouri on the 7th for Lake Te Anau Hotel, arriving there on the evening of the 7th, went by steamer to Glade House on the 8th. The pack-horse did not arrive as promised. Milne and Murrel had left the equipment with me necessary for climbing, so I shouldered 60 lb. to carry the 33 miles, and the Glade House keeper and manager, Mr. Challis, took a snapshot of it. I led a party of tourists to Pompolona in three and a half hours, and next morning a kind track-hand took 10 lb. of my swag as far as the top of the pass, and this helped me on the way to Quinton on the 10th. Near Quinton Hut I met the surveyor's assistant, Collett, who said he had just come from Turner's Waterfall, and compared it with Sutherland's; it was very much grander

in every way. The rain eased off and allowed us to get to Sandfly on the 11th. I rejoined the party, all except MacPherson, who returned from Glade House. We left for base camp on the 12th. We were short of food in the camp. I knocked a weka over with a stone to help our scanty stock of food. We left for the high camp on the 13th, and the 1921 Tutoko Bivouac on the 14th. We had left to climb Mount Tutoko on February 20th, and were moving every day, except four days spent at Martin's Bay. Eighteen days spent to get back to where we started from must be the biggest continuous mountaineering journey in New Zealand.

Before lunch on the 14th I climbed the highest rock peak, the next rock peak to Mount Madeline, in four hours from the bivouac and back again. (This is the rock peak south-west of Madeline, and third highest on that range.) The height is about 8,000 feet above sea-level. On the 15th, starting early, Milne and I climbed three peaks between 7,500 and 8,000 feet, the next three to the one I climbed. I waited over an hour 18 inches from the edge of the precipice, with a sheer drop of 6,000 to 7,000 feet, for mist to clear for cinema work to take the waterfall and lake, but when the mist lifted the film went wrong several times, and that day's cinema work was a failure. We had a good climb on the 16th, doing the peak on the right of the gap, Mount Milne, 8,000 feet, from which I discovered the waterfall last year. We returned to camp about two o'clock. Murrell and Hardy arrived with fresh bread about 5 p.m., quite an event, as we had been feeding on bread

one month old. The weather became bad, and on the 17th it rained and blew hard all night; but we expected bad weather, and prepared for it, and just managed to hold up the big tent—it was wild weather. It lasted until about three in the afternoon, then cleared up.

On returning to our high bivouac, after a 350 miles' journey, I could see that the two previous heavy falls of snow on the top rocks of Mount Tutoko had not been diminished by the sun, because the continuous bad weather never gave the sun a chance; therefore a sudden fall in the barometer, which was followed by a boisterous night, together with the low spirits of my party, forced me to the conclusion that the climbing season in this alpine region was coming to a close quickly, as the winter comes very suddenly down in these parts. I made up my mind to get some cinema photos, but had a feeling that we would have to postpone the last 200 feet of Mount Tutoko until next season. We had been badly beaten by the weather, not having three settled days for the whole of our holiday, and there was no reason to expect any better weather now that it looked like winter. The clusters of mountain daisies, which were fresh and in full bloom in February, by now had all withered, and other late autumn indications were in evidence all round. Another important indication was the badly broken lower slopes of Madeline Peak, over the base of which lay our route, if we wished to again attempt Mount Tutoko from that bivouac.

A vertical ice bridge from the upper glacier to the fallen-in part of the glacier had fallen to

pieces, making it very difficult to get across, and the state of the glacier was such that we might have found it impossible to cross and re-cross. On the morning of the 18th, while climbing the rocks to the upper snowfields, ice about a quarter of an inch thick on every pool in the rocks and intensely cold wind made us realize that winter was on us; so after spending some time with the cinema camera, until we became enveloped in a snowstorm, I gave the word to descend, and we hurried to keep ourselves warm, and bade farewell to the lovely scenery.

We reached the high camp at about six o'clock. It rained all night on the 18th and all day on the 19th, and all the precipices oozed out waterfalls, flooding the creeks and rivers. A lull allowed us to leave the high camp at one o'clock, but as we were running very short of food, Hardy and I went through to the base camp, where we left Murrell and Milne to pack up, and we gained Sandfly at 5.45 very wet. Bad news and bad weather made me close my holidays, and I decided to leave on Tuesday, March 22nd, thus ending an eventful season, rich with adventure and discovery. We reached the boatshed at Lake Ada in thirty-five minutes. The boat took us to the head in fifty-five minutes, and we walked to Quinton Hut in two and a half hours. I carried a swag half the way weighing about 60 lb., as the horse did not meet the boat.

Next morning, March 23rd, after heavy rain delaying us until lunch-time, I left with two tourists. I carried a 40-lb. swag, including my cinema camera and 1,500 feet of film, etc., over the pass,

took four views, exposed about 60 feet of film, and reached Pompolona in three hours forty-five minutes, including thirty minutes spent in taking photographs. Two tourists hurried over the pass, but I overtook them knocked up two miles from our destination; many tourists foolishly try to turn the pass into a racing-track. Next morning, March 24th, we came to Glade House in good time. After resting until the following day (March 25th) at Glade House, where they made us very comfortable, I left for Te Anau, March 25th, in the afternoon, the boat reaching the wharf just before dark on Thursday night. March 26th (Good Friday) was spent travelling from Te Anau to Dunedin. On Easter Saturday, March 27th, I travelled to Lyttleton for the boat, and home Easter Sunday, after a severe holiday, the first part of which I was ill with dysentery and short rations.

FAUNA AND FLORA OF TUTOKO VALLEY, AND THE SLOPES OF MOUNT TUTOKO.

Flora.

GENTIANAS (3 kinds).—Blue, white, pink centres with white border.

DAISIES (2 kinds).—Mountain daisy and small-faced daisies.

TREES comprise fuchsia, toitoi, but are mostly birch.

Mountain birch are found on the precipices, sprinkled with the glorious deep red-coloured ratas. These attain a great height on the precipice, even 1,000 feet up. A tree avalanche on the precipice is formed by the roots of the trees filled with stones; the frost helping the leverage, eventually brings down the accumulated rock, stones, roots of trees, and big trees, forming avalanches of all sizes to be washed down the valley by the mountain streams and strewn at the head of Milford Sound.

One sees a long bare surface of the precipice of considerable width reaching to a great height, and this is the spot where once big trees flourished. It looks as though eventually precipitous

slopes will be made bare of trees by these avalanches. Enormous numbers of trees are washed down the Tutoko River, and in one or two places these huge piles of trees are stacked in piles when the valley is in flood. Apart from these avalanches the growth is very flourishing and strong; very few trees have fallen owing to decay. The stunted birch on the precipitous walls affords some very secure hand and footholds, making it possible to get up the most difficult places. Small stunted scrub is found as high as 5,000 feet, but its condition seems to depend upon the fluctuations of the seasons and the amount of snowfalls. We were able to make a fire by collecting stunted scrub at a height of 5,000 feet. Snow-grass is very plentiful at this height, and the dead snow-grass enables one to find plenty of good bedding for the inside of the tent.

Fauna.

The most beautiful singing birds, which are both plentiful, are the kaka, which is a deep-red coloured mountain parrot, bigger than the kea, whistles at certain times of the year as beautifully as any nightingale, with a full, deep rich tone; and the bell-bird, with its beautiful light-sounding notes. The kapapo, a large green parrot, whose note is like a drum, and the kea, a third kind of parrot found, are all over these mountain slopes. Whilst crossing the unexplored glacier coming down from Mount Tutoko to the Hollyford Valley one large kea challenged our progress with a loud screech, as though it meant to attack us; when it found it made no impression on us, it attacked a big piece of ice on the edge of a big crevasse, and had a fierce tussle with it. Wood-pigeons are fairly plentiful, kiwis are not too plentiful, the tui is fairly plentiful, two kinds of wax-eyes, black and white, two kinds of fantails, black and pied. Small larks even reached our camp with the keas at 5,000 feet. Blue ducks swimming in the river are fairly plentiful; grey ducks, shags, Paradise ducks even at our high camp, weasels and opossums. A great number of blue-bottles of large size were up at the height of our camp. Beetles in the valley with a small elephant's trunk shape, several varieties of spiders, myriads of sandflies, with a fairly large sprinkling of mosquitoes up to 2,000 feet. The weka is fairly plentiful.

CHAPTER XIII

BRIEF NOTE ON EQUIPMENT FOR NEW ZEALAND EXPLORATION AND MOUNTAIN-CLIMBING

THE equipment necessary in New Zealand depends upon the district, and there is a wide difference between one mountain district and another. For instance, the climber can borrow nearly everything when climbing in the Mount Cook district, with the Hermitage for the base; while in the Tutoko district, with Milford Sound as the base, it is necessary to take everything, from the camp oven to the ambulance outfit.

The climbing months, for length of days, are December to February, but March is also a very good month, and the quantity of snowfall in the previous winter will guide the climber better to select the months. New Zealand climate is very changeable, and at times the most perfect weather prevails in the least expected month, while suddenly ten to twenty days of continuous wet weather may try the patience and waterproof material of the climbers. In the Mount Tutoko and Mount Aspiring district March should be the latest month, because the dense bush becomes sodden and musty after March, making heavy travelling and short daylight. In the south-western districts the glaciers tumble to pieces more suddenly than in

the Mount Cook district, while nobody but expert ice-men should attempt big ice-climbs in late March or April in any part of the south island.

Heavy snowstorms are likely at the most unexpected times, and it is, generally speaking, not prudent to count on more than two fine days together.

The great difficulty in successfully reaching most of the summits of the New Zealand Alps is due to the uncertainty of the weather and the sudden winter storms, without anything but the most delicate warnings of their approach. The most lovely calm perfect day that it would be possible to describe very often precedes bad weather by a few hours. The snowfall, even in the middle of the summer, at times is very heavy and comes down to about 2,000 feet, and it is a thing to be reckoned with. New Zealand glaciers flow down to nearly sea-level, which is evidence of both latitude and very heavy snowfall. Whatever equipment is taken it has to be remembered that the explorer and climber in New Zealand must move much faster than in Switzerland, or anywhere else I know of, owing to the low level one starts to climb from. Everything must be as waterproof as possible and able to stand the windstorms that very often follow a snowstorm. I found that Shackleton's eiderdown, Japara silk-covered quilts, made good sleeping-bags when supplied with a waterproof device of my own; the inside must be left loose, with buttons so as to button the eiderdown part into the waterproof bag. An improved tent of the Mummery pattern is good, with thick waterproof flooring and flysheet over

the top, with tapes to thread the spare rope or alpine rope through to the tent so as to separate the fly from the tent. (The tent and sleeping-bag covers, etc., can be secured from Hutchison Wilson and Co., Jervois Quay, Wellington, N.Z.)

The best New Zealand centre for exploration is the Sounds district, and the most convenient centre for climbing is the Hermitage district. The distance from the base to the climb is very much longer than the distances in the Swiss Alps, while in the Mount Aspiring and Mount Tutoko districts one has to be useful in the bush also with the slasher to ever get to the base of the climb.

A base and a high camp is sufficient in the Aspiring district; but one base and three advanced camps may be necessary in the Tutoko expedition.

Our base was the head of Milford Sound, then a base tent seven miles up the Tutoko Valley, a high tent up in the bush alongside the glacier, then a high bivouac where we pitched an antarctic Willesden tent full size, and an alpine tent of the improved Mummery pattern. We then put an advanced bivouac in with the Mummery pattern tent, using the Shackleton antarctic tent as a base bivouac. The pole was carried up 3,000 feet.

Most of the equipment can be secured in New Zealand, but concentrated foods had better be brought by the climber. Besides the alpine rope, a 200-foot coil of half thickness will be very useful for helping the swaggers to climb the precipitous bush. I don't believe in crampons, staples, or any artificial means of climbing whatever, as it makes it necessary to watch one more thing, and the risk of overbalance or a crampon coming off

on some of our steep slopes, is a risk not worth taking.

All the food was packed in kerosene cases and hermetically sealed so as to keep the damp out during the months it had to lie on the seacoast awaiting our arrival, as the Government boat only sailed to the head of Milford Sound once every four months. (The first season the moisture in the potatoes and onions turned the vegetables bad and affected the whole of the food in the tins, and nothing with moisture in can be taken in sealed tins.) The provisions were sorted out for convenience. A waterproof bag to collect snow or water in can be used to carry a four-men aluminium cooking stove, as used in Switzerland, with methylated spirit. Excellent alpine lanterns and spare lanterns for the camp, tapers and hard carriage candles, matches in bottles airtight, spare goggles and boots for men, and hunter's waterproof matchboxes for the pocket, a good knife of war pattern with tin-opener, spare laces, plenty of spare tin-openers, last and boot nails, hammer, big and little axe with spare shafts (big trees have to be felled across rivers to use as bridges), copper and zinc wire, rivets, various tools, pea rifle, birdlime, writing material, ink pellets, castor oil and fruit salts, dubbin for boots, maps, instruments, including photographic and cinema outfit (small pattern). Clothes should be fairly light and quick driers. Burberry with a suitable lining would be all right for the wet, but something less tearable should be used for the bush; spare clothing is necessary, leather finger-tips and plenty of plaster, spare inner soles for boots, Muscobane soap and

citronella for mosquitos and sandflies, also netting to keep them off while sleeping (these pests should not be taken lightly, they are apt to spoil the party's temper), small alarm clocks, mackintosh bag to put clothes in when leaving them in the tent to keep blowflies out, or underclothing will be spoiled.

The following lists of food are arranged so as to enable a party of four to swag to the base camp and have on the first trip an assortment of everything they require. The label on the outside was a good guide to select what one required, and it was taken notice of by the shirker who wished to have his companion well loaded up in order to show how well he himself could travel. One could improve on this list in England by being able to get food in more concentrated form. A kerosene tin is about the right size for a full-size rucksack of New Zealand climber's size (Hutchinson Wilson & Co., Wellington). Clothes must be packed round the tin for comfort. The aluminium quart water-bottle (felt-covered) is very suitable to carry tea or liquid refreshments, while nigroids (small liquorice pellets) keep down the thirst. The long ice-climbs in New Zealand require men who have their thirst conquered, or almost conquered, as it is not always possible to collect water on a climb.

In fixing a camp it is wise if one has porters to enable them to return to their base every day, only having one meal at the advanced camp. Lack of organization in this respect can be carried to an absurdity, and porters will eat as much food as they carry if not controlled properly.

The class of men engagable in New Zealand will want to carry their own cameras, films, and clothes, and this will need watching, or their carrying capacity will be diminished. The best way when selecting a porter is to pick him on the understanding that he will carry not less than 40 lb. on any occasion, because the carrying capacity of your companions often makes for success or failure. I have found that my swag has been as heavy as, and sometimes much heavier than, the much younger porters' on some of my trips. The next qualification when selecting a porter is to select him for his early rising habits.

A full detailed account of what is in each tin should be kept to correspond with the list pasted on the outside of each tin and each case. Extra clothing to be packed in the cases in accordance with how it is required. The most useful stand-by food on the three seasons down in the Tutoko and Hollyford districts was Rosella Christmas puddings and St. George's camp pies. One requires something that can be eaten at any time, to be nourishing, appetizing, and filling, yet in small compact form (air-tight). Boiled eggs, when obtainable, for early morning breakfast are as good for early climbing as anything.

One should take plenty of storm-clothes. I have known a climber go without under-pants on in order to show how quickly he could travel; then, when the sudden storm came on, he lost his temper and became 50 per cent. less efficient; while the well-clothed climber can stand any weather and get through in comfort. I have seen a surveyor who has been used to the camps for

thirty years offer to take charge of the last loaf of bread, nearly the last of our food ; he planted it under a hole in the rock without covering it up ; a severe snowstorm came on in the night, and next morning when he went for our last loaf it was all sodden and the nutriment gone out of it. This is a sample of some men's methods.

I recommend two ropes for four climbers, so that, if agreeable, the rope with the weakest member on it can agree to return, while the more efficient can reach the summit and so make the expedition successful.

When selecting men, either companions or porters, the question of good or bad temper is of minor importance, because the high-spirited man will conquer the mountains and the placid man will probably never get there. It is of the utmost importance to get non-snoring, early rising, methodical men, not clumsy, and with a moderate appetite. You cannot get Guides for the Milford Sound, Hollyford, or Mount Aspiring district ; therefore only a few climbers are able to tackle these districts. One needs to be a good horseman and bushman to get on well in these remote regions. I have been with the most expert deer-stalker and bushman who was absolutely useless on a big ice and difficult rock climb.

The two best alpine bootmakers in New Zealand are Mr. Breece, of Hokotika, and Mr. Souter, of Timaru. I get my boots made at Souter's, and find them entirely satisfactory. Nails close under the inside of the boot and a fairly straight sole are the best for rock-climbing. Very thick socks are better than two pairs of socks in alpine boots.

In the Aspiring and Tutoko districts lighter alpine boots can be used, as there are only very small moraines as compared with the Mount Cook district, while the bush work is easier in light boots; 5 lb. should be the limit of weight for the half-bush and half-mountain climbs found on the west coast of New Zealand. Alpine boots should be worn for golf or ordinary walking all the year round, so that one is used to their weight; a small screwdriver should be carried into the mountains to keep the screw-nails tight, or to renew them. Spare ice-axe should be carried to bivouac with wristbands. In case of slight snow-blindness some good eye ointment or lotion should be carried.

Turner's rucksack can be purchased at J. E. Evans, Ltd., Lambton Quay, Wellington. The make is of light waterproof material, with one pocket each side fastened by buckle and strap. Inside there is a pocket in the centre for the quart bottle (water), and a pocket on each side of this for aneroid, goggles, and camera. The sack is pulled tight by fairly stout cord through moderate size brass eyelet-holes. Over the top is a cover or cap, saucer-shape, fastened to the front with a strap and buckle. This sack has the advantage of the climber being able to use the inside and outside pockets for the camera and waterbottle, or for separating the used and unused films.

The list of food given in the following sorted form is luxurious, because the boat takes it to the base in the case of Mount Tutoko. The following list can be added to or modified to suit the party, but we found it a very comprehensive list, and explorers and climbers who stint themselves for

food never do the best work. At the same time the full meal should only be taken in the base and high camp, and reduced rations at the bivouac, which after all is the pivot of the success or failure, because there is so little help procurable to swag provisions to the bivouac. From the base camp on the Tutoko or the Hollyford meat could be obtained by getting permission to kill a cow, but care has to be taken, as the flies are very troublesome. The meat should be hung well off the ground on a tree branch. Arrangements could probably be made for the bread to be baked at Milford Sound or Martin's Bay from one's own flour.

FOUR MEN'S RATIONS FOR ABOUT TWO MONTHS.

List No. 1.

25 Flour
 $\frac{1}{3}$ lb. Suet
 1 lb. Sultanas
 1 lb. Blue Peas
 1 lb. Haricot Beans
 1 lb. Lima Beans
 1 lb. Pearl Barley
 1 pot Meat Extract
 Egg powder
 1 tin Pepper
 2 Pea Sausage

List No. 2.

25 Flour
 $\frac{1}{3}$ lb. Suet
 1 lb. Blue Peas
 1 lb. Sultanas
 1 lb. Haricot Beans
 1 lb. Salt
 1 Pea Sausage
 2 packets Tucker's Soups
 1 pot Meat Extract
 1 lb. Pearl Barley
 1 lb. Lima Beans

List No. 3.

25 Flour
 $\frac{1}{3}$ lb. Suet
 1 lb. Haricot Beans
 1 lb. Lima Beans
 2 packets Tucker's Soup
 1 lb. Dried Apples
 1 lb. Dried Apricots
 1 Pea Sausage
 2 cakes Chocolate
 1 lb. Sultanas
 1 bottle Curry Powder

List No. 4.

1 bag Porridge Meal
 2 2lb. bags Rice
 2 packets Dates
 1 lb. dried Apricots
 4 lb. Sugar
 1 tin Baking Powder
 3 tins Sardines
 1 tin Cheese
 1 tin Tongues
 1 lb. Butter
 Glycerine Lozenges

1 packet Soup
1 Pea Sausage

List No. 5.

2 2lb. bags Rice
1 Plum Pudding
1 lb. Butter
1 lb. Candles
2 tins Herrings
1 tin Milk
1 packet Porridge Meal
1 Camp Pie
1 tin Jam
1 box Tapers
1 tin Cocoa
 $\frac{1}{2}$ doz. tin Matches

List No. 6.

1 lb. Lima Beans
2 lb. Rice
2 tins Milk
1 lb. Sultanas
1 lb. Dried Apples
4 lb. Sugar
4 lb. Tea
1 lb. Salt
1 lb. Blue Peas
1 packet Dates
1 bottle Sage
1 tin Dubbin

List No. 7.

Bacon
1 bag Porridge Meal
2 tins Herrings
1 tin Sardines
1 lb. Lima Beans
1 tin Beef
1 lb. Butter
1 tin Milk
1 Pea Sausage
1 tin Jam
1 tin Cheese
1 lb. Pearl Barley
1 tin Mustard
1 tin Cocoa

1 tin Salmon
1 lb. Salt
1 tin Extract Beef
1 packet Soup
1 lb. Haricot Beans

List No. 8.

Ham
1 tin Strawberry Jam
1 tin Milk
1 tin Butter
1 packet Dates
1 tin Sardines
1 tin Cheese
1 tin Rabbit and Bacon
1 tin Salmon
1 tin Tongues
2 lb. Rice
1 lb. Lima Beans
1 tin Kipper Herrings
1 tin Herrings and Tomato Sauce

List No. 9.

1 lb. Apricots
1 lb. Haricot Beans
2 lb. Candles
1 tin Herrings in Tomato Sauce
1 tin Brawn
1 packet Dates
1 tin Milk
4 lb. Sugar
Tin Rex Cheese
1 Plum Pudding
Bag Porridge Meal
Tin Tomato Soup
1 tin Jam
1 tin Kipper Herrings

List No. 10.

2 4 lbs. Sugar
1 tin Coffee
1 packet Dates
4 tins Milk
4 tins Sardines
Tin Strawberry Jam
Tin Tongues

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1 jar Extract of Beef
1 bottle Eno's fruit salts
1 packet Candles
1 bottle Thyme
1 bottle Mint
1 tin Tomato Soup
1 tin Kidney Beans
1 tin Butter
1 Plum Pudding
4 cakes Chocolate

List No. 11.

16 tins Herrings
12 tins Kipper Herrings
6 tins Milk
10 tins Pineapple
8 tins Jam
8 tins Green Peas
1 bar Soap
3 Toilet Soap

List No. 12.

1 slab Cake (airtight tin)
1 bottle Pickles
1 bottle Chutney
1 bottle Tomato Sauce
1 bottle Lime Juice
1 bottle Vinegar
1 jar Extract of Beef
2 tins Sardines
1 tin Rex Cheese

List No. 13.

1 slab Cake (airtight tin)
2 bottles Tomato Sauce
1 bottle Vinegar
1 bottle Pickles
1 lb. Candles
1 Camp Pie
1 tin Rex Cheese
1 tin Butter
Tin Acid Tablets

List No. 14.

1 tin Saloon Biscuits
1 tin Cabin Bread

6 tins Bartlett Pears
1 tin Milk
1 tin Jam
4 tins Kipper Herrings

List No. 15.

2 tins Water Biscuits
6 tins Mutton
2 tins Beef
4 tins Brawn
1 tin Salmon
1 tin Camp Pie
2 lb. Prunes

List No. 16.

1 tin Cabin Biscuits
1 tin Beef
3 tins Rusks
6 tins Rabbit and Bacon
3 tins Tongues
3 tins Kipper Herrings
1 tin Cocoa
3 tins Salmon
2 tins Epp. Sausage
3 tins Brawn
3 tins Butter

List No. 17 (in box).

1 Camp Oven
5 each, Knife, Fork and Spoon
5 Teaspoons
1 Flat File
2 lb. Nails, 2 in. and 3 in.
6 Billies (six sizes)
2 Tin-Openers
4 lb. Sugar
Tin Sardines
2 tins Butter
1 tin Milk
2 Toilet Soap
2 tins Pannikins
6 tins Matches
1 tin Zinc Ointment
3 tins Dubbin
3 Clothes-Lines
1 bottle Tomato Sauce

1 big Knife
1 pair Pinchers
2 Axes, one very small
2 Axe-Handles
12 yards Wire, 8 gauge
2 Slashers
200 feet $\frac{1}{4}$ -inch Rope
Canvas Boat

List No. 18.

5 tins Rabbit and Bacon
3 tins Pears
3 tins Camp Pies
3 tins Plum Pudding
2 tins Brawn
1 tin Kipper Herrings
3 tins Honey
1 tin Strawberry Jam
5 tins Kidney and Bacon
4 tins Tomato Soup
4 tins Green Peas
1 tin Coffee
1 tin Butter
3 tins Golden Syrup
2 tins Pineapple
1 tin Cocoa

List No. 19.

4 Sleeping-Bags
Rifle
Tent and Fly (Alpine, with
waterproof flooring)
Alpine High Camp Tent
Wire

4 Rucksacks
Cartridges
3 Fishing-Lines
Hooks
12 Food Bags
 $\frac{1}{2}$ lb. Hops
Dried Vegetables
Knife in Sheath
5 Tin Plates
Birdlime

List No. 20.

2 Tents (one base, one bivouac)
Basin
Frying-Pan
Rucksack of climbers packed
separately
5 lb. Tea
3 $\frac{1}{2}$ gallons Methylated Spirit
Box Soup
Films
1 Tin Bowl
Ambulance Box, containing—
2 bottles Elliman's
2 2 oz. Citronella
1 bottle Chlorodine
12 Epsom Salts
1 Ammoniated Quinine
1 Glycerine
1 Iodine
1 Coconut Oil
1 Vaseline
2 Zinc Ointment
4 pairs Laces

CHAPTER XIV

NOTES ON TRAINING FOR SERIOUS MOUNTAINEERING

No man becomes a genius at athletic attainment without painstaking training, therefore it seems to me necessary to give some ideas of what kind of training is necessary when a climber intends to take his chance on the mountains whose summits cannot be attained without machine-like precision. On difficult mountains a man's life often depends upon his condition.

The sudden climbs are evidences of more thorough training and preparation than most people would think necessary. The Mount Cook certificate was arranged for because Guides who had climbed Mount Cook declared it impossible for one man, and no one man had ever attempted it alone. The balancing act on a pinnacle of rock on the Haast Ridge overlooking the steep slopes of the Hochstetter Glacier is meant to show the double balance or the act of the highly developed equilibriumist. The walk along the 70-feet sharp knife-like ridge together with the balancing of my ice-axe on my chin standing on the third peak of Mount Cook (a sharp ice-ridge) is meant to show absolute calm conquest of the mountains. Frank Milne and Radcliffe were with me on Mount Malte Brun and straddled the ridge just before I



DOUBLE BALANCE. HAAST RIDGE.



SUMMIT, MOUNT FOOTSTOOL.

To face p. 280.

walked it, and Frank Milne and Peter Graham were with me when I balanced my ice-axe standing on Mount Cook. The climber good at balance is also sensitive of touch, and can feel the slightest give of the rock he grips or stands on, as well as the ice or snow. The skipping records are meant to show the excessive and intense efforts for the cultivation of the power of concentration and the grip of mind over the body with a sustained quick effort of the will without a moment's pause. While training I made a world's one-hour non-stop record of 10,100 without stopping the rope, the previous record being held by Mr. Paget, Kensington (Melbourne) Physical Culture School, 9,514 skips in one hour. To enable the reader to see what a lot of energy is necessary to climb Mount Cook, which takes twenty-four to twenty-six hours by the strongest party from the last resting-place, I made two traverses of Mount Egmont in just on eight and a half hours. That was a climb of 10,400 feet up and 10,400 feet down, but it took me twenty-six hours to climb Mount Cook from the last resting-place. Step-cutting endurance has been cultivated by winter climbs on Mount Egmont, giving me 8 to 9 hours step-cutting without a rest on many occasions. New Zealand's big snow mountains, and for that matter Mount Everest, can only be climbed by a phenomenally developed step-chipper and cutter. Any kind of crampon device, in my opinion, will be dangerous and unsuccessful.

Skipping has come into great prominence with the business man, because five minutes every morning is all that one needs to keep fit. To

most athletes it is a test of endurance, but for mountain-climbing it is not severe enough in light boots, and I play tennis and skip in my mountain boots, 5½ lb. weight the pair. This, together with ball-punching, tree- or wood-chopping, and several kinds of Swedish exercises, besides walks and climbs all the year round, keep me fit. Playing golf in my mountain boots and quickening the pace gives me the use of the boots, and enables me to work in the new pair which I purchase every year.

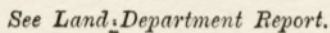
I will describe my skipping methods; it is not so simple as it looks to be proficient at this simple form of exercise.

When skipping, mostly with both feet together, I select a small stationary object and fix my eye on it, and my feet do not move more than about 2 square feet. My skipping-rope is a piece of log-line, with a knot at each end, well soaped or greased in the part that slips under the feet. I do not rise above three-quarters of an inch, and the rope is three-eighths of an inch in diameter, and it is in keeping this exact height that the will power and accuracy come in. I have a pair of gloves on, with plaster round the inside joint of my first and second finger of each hand, and skip with wrist action, with the rope just tight enough to control, but the arms are not used much. After finishing a skip with both feet together, I change into all kinds of skipping to loosen up; but for ordinary every-day effort I skip 1,000 in five minutes occasionally, and the effort necessary to do this gives me a good idea of my condition. In the same way I have certain climbs which I

do every year at a certain speed, which also indicates one's year-to-year condition. As one gets on in life these tests become more necessary, so that the climber will not be found wanting on the mountain or a big journey which might prove fatal. I have climbed most of our big mountains without getting out of breath to make a stop necessary, and have run up the last few hundred feet. Have never called a halt in the mountains yet with anyone. On the other hand, have always had reserve force solely on account of my careful training and living. I made a record in March 1911 of 10,300 skips in one hour four and a half minutes on the s.s. *Arawa*, and as late as December 16, 1921, I made better speed by skipping 10,600 in one hour five minutes—thus proving my form over ten years, during the period of most of the conquests in this book. It shows due respect to the mountains to train thoroughly, and take mountaineering very seriously; not underestimate the powerful agencies at work to repel the most efficient mountaineer.

HOLLYFORD DISTRICT

(This territory previously unmapped.—S.T.)



APPENDIX

NOTES FROM GOVERNMENT OF N.Z. LANDS AND SURVEY ANNUAL REPORT, 1922

Explorations about Mount Tutoko

THE Darran Mountains, lying between the head of Milford Sound and the valley of the Hollyford River, are shown on the Department's maps as an unexplored region, some isolated points therein having received a provisional fixing during the course of explorations made in neighbouring districts.

Mr. S. Turner, F.R.G.S., the well-known mountaineering enthusiast, has devoted several seasons to climbing in this little-known region, discovering a very large new fall and a lake, and finding reasons to believe that a peak hitherto shown as Tutoko on the maps was not the highest in the vicinity, and that the name (which belongs to the highest) should be transferred to another peak some two miles north-west, which is apparently that shown on the original Admiralty chart as 9,691 feet.

Desirous of locating his discoveries and settling the doubt as to the identification of Mount Tutoko, Mr. Turner applied to the Department for the services of a surveyor for reconnaissance work, and Mr. D. Macpherson eventually was allowed to accompany Mr. Turner in February 1921.

Unfortunately, owing to several untoward circumstances, the amount of survey work accomplished was insufficient to effect the primary objects of the trip, but the observations and photographs made seem to an outsider to strengthen Mr. Turner's conclusions as to

Mount Tutoko, though Mr. Macpherson is not convinced of this. The fogs and mist, while they did not hinder the roar of a very large fall being carried to the ears of the explorers, did prevent any determination or estimation of its size, which previous observers consider to rival the famous Sutherland Falls.

The country climbed is very difficult, and at one time fears were entertained for the safety of the party, which found itself unable to return by the way it had gone out, and was obliged to make a most difficult trip, pushing over largely unknown glacier and ice country, down into the Hollyford Valley, thus crossing quite over the mountain-range and making five days' travel on three days' provisions, eventually getting out to Martin's Bay. The delay due to this experience was a considerable factor in preventing sufficient reconnaissance survey being done, as it was necessary to return again to Lake Te Anau—an immense detour—whence the trip would have to be begun again to get back to the mountains, and Mr. Macpherson did not return with the party.

The very interesting photographs reproduced here, kindly lent by Mr. Turner for the purpose, give a good idea of the country, but the accompanying map, drawn from Mr. Macpherson's sketches and Mr. Turner's descriptions and bearings can only be considered as an eye-sketch, owing to lack of proper intersecting bearings, etc. Two of Turner's photographs are of especial interest as showing the unknown country surrounding the disputed Tutoko peaks. That of Turner's Pass shows both peaks; that to the right, now named Madeline, is that which is suggested as being really the peak at present called Tutoko on the maps, while the far-off mountain on the left is the higher new peak, probably the real Tutoko. Another photograph is taken from the top of Madeline (the snow-covered foreground), in a north-westerly direction across Turner's Pass to the real Tutoko, some two miles and a half distant. This view shows to the right the newly found ice field lying round Tutoko, and sending down one glacier to the left (south) into the Tutoko Valley, one to the north-east towards Stick-up Creek

and Lake McKerrow, and another one along the flanks of Tutoko and Madeline south-east into the Hollyford Valley, and over and along which the party, after crossing Turner's Pass, descended into the Hollyford Valley.

NOTE BY THE AUTHOR.—If Mr. Macpherson's doubt was of any importance, the 1921 Expedition would have been unnecessary, so far as climbing Mount Tutoko was concerned, because in such a case Mount Tutoko would have been climbed by Cowling and I in 1920. I am so convinced that the one we climbed in 1920 was not Tutoko, but that the one we reached within 200 feet of the summit is Mount Tutoko, that I will organise another trip to complete the ascent.—S. TURNER.

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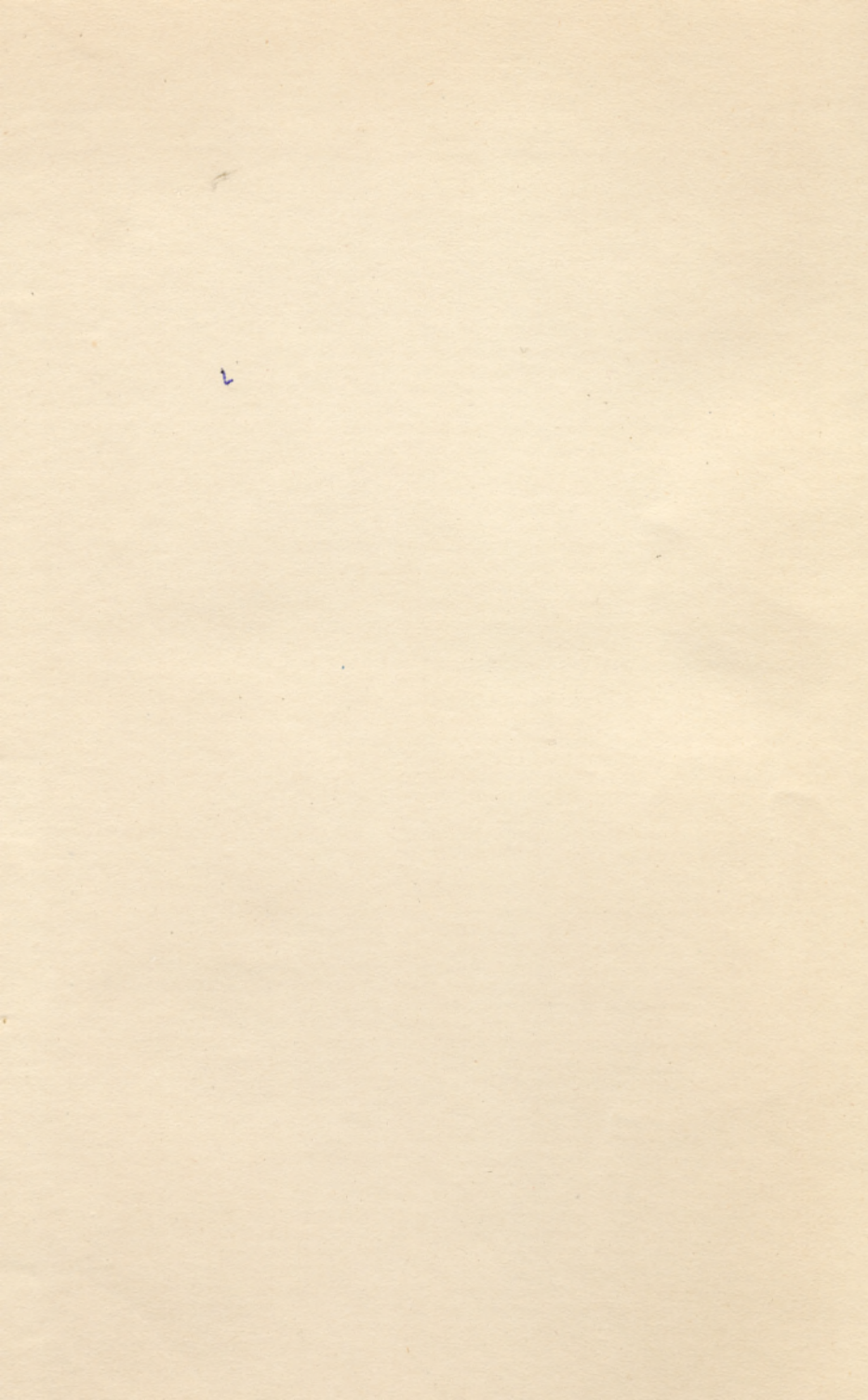
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