

GLACIER PEAK AND MT. ASPIRING, N.Z.

BY H. E. L. PORTER.

MANY mountaineers have uttered hard words and nursed vindictive thoughts when they set themselves to relate their experiences in the Southern Alps. Those who can only visit them once in a lifetime may well repine at the wanton malignity of the incessant storms which shroud the great peaks in a mantle of inaccessibility. The luckier few, whom fate allows to return, find the fetters of enchantment riveted ever more firmly by the hammer-blows of disappointment. One learns to fail and fail again, and yet return unperturbed to a final success all the richer and sweeter for the previous rebuffs. From this point of view New Zealand is a good foster-mother and trains her children sternly in a valuable virtue. In the Southern Alps one peak a week is a good average, and anyone who achieves three peaks in a fortnight's stay is unusually lucky. Such results do not satisfy everyone: holidays are short, and hope deferred makes the heart sick; hence the enthusiasm of many possible converts to mountaineering has been nipped in the bud, to break out later in some other direction.

Heaven forbid that I should ever so forget myself as to fulminate against the nor'wester without discovering some sparks of humour to illumine the gloom. Who, indeed, would willingly admit that he had gone five times in seven years to the uttermost ends of the earth in pursuit of something rich and rare, and found in the pursuit only disappointment and disillusion? So it is, that in marshalling the events of my fifth N.Z. season I find myself savouring not without gusto the memory of many days of storm-bound idleness, rewarded by a few, a very few but very precious victories on peaks long-wooded and hardly won at last. It is true that N.Z. calls me back now with many voices, of which the mountain voice is only one of the most potent: on my last visit out of five available months only six weeks were devoted to mountains, and most of the remainder passed with magical speed on an upland sheep-station, my wife's old home, where a man who can wield an axe and handle tools can find an infinity of occupations without any knowledge of the intricacies of making sheep turn into mutton and wool. From this as



Photo, H. E. Porter.

Stargazer, from N.W. ridge of Mt. Aspiring.
(Moonraker in background, Waiototo Valley to right)).

my base I made three raids on widely separated mountain groups, the first of which was designed to deal with some of my remaining antagonists over or approaching 10,000 ft. in the Mt. Cook district. These were five in number: La Pérouse, Dampier, Douglas Peak, Glacier Peak and Elie de Beaumont. I arrived at the Hermitage early in December, when the first two, formidable at any time, are certainly impossible, but I hoped with luck to grapple successfully with the other three. I had engaged my old comrade, Vic Williams, and had a full fortnight before the Christmas crowd was due to flow in and the lover of peace and quiet retires on the ebb. After the usual waste of three or four days Vic and I boarded the car for the Ball hut. Since the catastrophic flood of last January, the motor road had been repaired and improved, and was already within three miles of the hut. The last lap to the hut is to be taken along the very top of the lateral moraine of the Tasman Glacier. This undulates enough to make the construction much more laborious, but the eye of the tourist will be gratified by a glorious view of the Tasman Glacier, unobtainable in the depression followed by the old track. On December 14 from the Malte Brun hut we inflicted a signal defeat on Elie de Beaumont, tasting in full the delights of revenge. It was hard to believe that it was the same mountain which had nearly brought our climbing careers to a tragic conclusion last February. We sped up long snow-slopes and wound easily through a simple system of crevasses, where before we had met unfathomable fissures, impregnable walls of ice and tottering séracs. Only at the schrund below the final ice-cap were a few steps necessary, and the top was reached in the fast time of 4 hrs. 40 mins. from the hut. An icy wind was sweeping the little summit plateau, and the W. was a sea of threatening cloud: it was our first climb, and our thirst for action was satisfied. For these reasons the fine W. peak of Elie still remains virgin. It could be reached from the high peak within an hour by a straightforward snow-ridge, but strangely enough no party has yet arrived on the top with sufficient energy to go on. From every other direction the W. peak presents one of the great unsolved, unattempted problems of the Southern Alps. From the flats below the snout of the Franz Josef it looks temptingly accessible; in reality a wide stretch of bush and glacier intervenes, only the fringe of which has ever been pierced, and that by the gold-diggers of the last generation, who, finding rich nuggets of the precious metal in the rugged Callery gorge,

made a rude track up it to aid their vain search for the parent reef.

After five minutes on the summit we made for home: the snow was deep and heavy on the Tasman, and we got back tired and sun-scorched in time to have a long rest before tackling our next objective, the far more formidable and interesting Douglas—Glacier Peaks' combination. Both these peaks were still unclimbed from the E., and had only once been surmounted from the W., as far back as 1907, when Canon H. E. Newton and Dr. Teichelmann with Alec Graham conquered them from a bivouac on the Fox Glacier. The neglect of these peaks from the E. is remarkable, seeing that they stand in full view of the Malte Brun hut, from the door of which dozens of climbers must have studied them. Hugh Chambers and I, with Frank Milne, to all of whom they made a strong appeal, attempted them twice in 1925 ('A.J.' **38**, 13), and one earlier attack is recorded,¹ in which Dr. Kronecker with the two young guides, Fyfe and Clarke, were repulsed by a vast schrund at about 9000 ft. Before relating the story of our ascent, I must endeavour to indicate the main features of the E. face of these peaks. The two-mile-long mountain-block, extending from Douglas Peak (10,107 ft.) on the S. over Glacier Peak (9865 ft.) to Conway Peak (9519 ft.) on the N. may perhaps be compared to a row of three two-storied houses; the upper story is the main divide, whence a steep 1000 ft. descent of snow or ice drops to the first story, a névé terrace of varying width and height: from this there is a rapid plunge of 3000 ft. to the ground floor of the Rudolf Glacier. The outer houses seem to have had an amateur architect, who has omitted to put in staircases to the first story: for at either end is a tangled icefall, and the only approach to the terrace is in the middle, where a series of rock-ribs and snow-patches separate the icefalls and converge on a snow-dome directly below Glacier Peak, from which the whole terrace is accessible. From the terrace no staircase has yet been evolved to Douglas, but Conway can be climbed from the other end of it, and we proved this year that Glacier Peak also is not impregnable.

We left the hut next day at 2.20 A.M. and had crossed the Tasman and Rudolf Glaciers by 4.10. After the lapse of five years I had forgotten the best line to take on the rock-ribs. We kept too much to the right and found the snow

¹ In 1894. See *N.Z.A.J.*, Vol. I, p. 262.

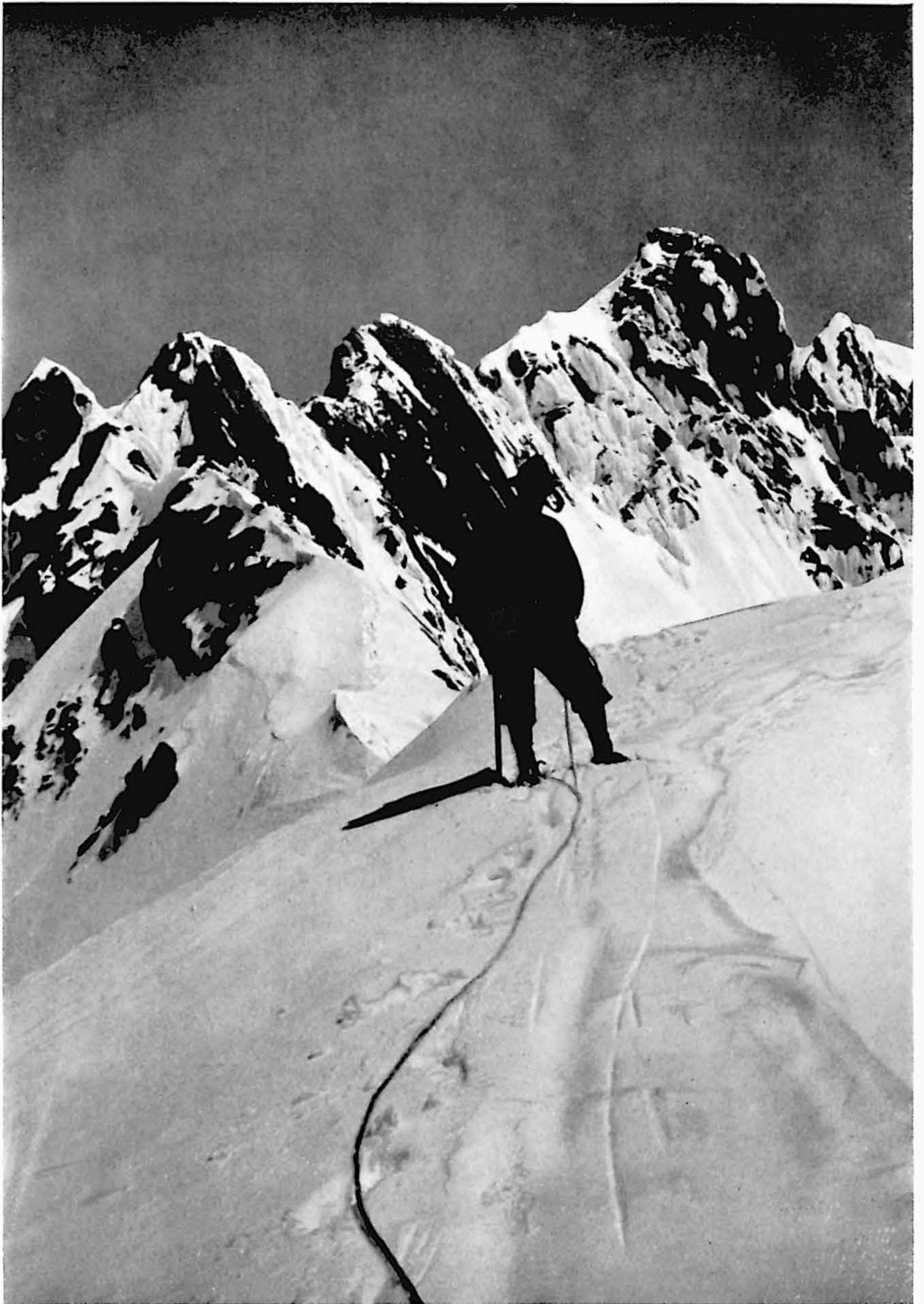
hard and the rocks difficult. My aneroid recorded 3300 ft. between the glacier and the dome, the ascent of which took $3\frac{1}{2}$ hrs. It was 7.45 when we reached the dome, much too late to achieve anything. But it had been abundantly evident for some time that the expedition was doomed to failure, for it was snowing further N. and the ridge above us was in thick cloud. We persevered as far as the dome, only to make certain of the best route for a future occasion, and the knowledge gained contributed largely to our subsequent success. We found a much easier way down and were back in the hut by 12.30 p.m. Thus ended my third attempt on these peaks.

Convinced that a nor'wester was imminent, after a meal and a short rest we retired to the Ball hut, trailing sore and weary feet for the last hour of the journey. But the pain was assuaged by the sweet music of the storm, which howled angrily round the hut during the night, proving us true prophets and wise men. While it ran its inevitable course we returned to the hotel, where I found several old friends among the student porters, now assembling to cater for the Christmas rush, and also a baby chamois which had been captured newborn and helpless near the Ball Pass. I used to cherish a fond delusion, based on some old natural history book of my childhood, that baby chamois get up and run the moment they are dropped by their dams. This one meekly allowed itself to be impounded in a rucksack and conveyed into captivity. Its mother was not seen. Perhaps it was a weakling, not up to the Spartan standard of its race, and for that reason exposed and abandoned. However that may be, it only survived three weeks in its cage at the Hermitage. Its death decided, or rather left in abeyance, a knotty point of ownership. The students, who had brought it down, asserted the right of capture; the Mt. Cook Motor Co. claimed it, as employers of the captors and as lessees of the whole district; but it probably belonged to the Government, which introduced the beasts originally and alone has the power to issue shooting licences. A somewhat similar question arose in the case of the two pitons planted by Zurbriggen in the famous arête of Sefton, which, having lain idle for thirty years, were removed by Milne and myself in 1925. They are still in our possession, but I have heard it argued that we had no right to remove them, or having removed, to retain them!

Four more of my precious days had passed in wind and storm before a return up the glacier was possible. This time we chose the De La Bèche bivouac near the confluence of

the Rudolf and Tasman Glaciers as our starting point. It is difficult to decide whether the comfort of the hut is a sufficient counterweight to three hours of added labour on a long and arduous day. I have tried both, and on each occasion the last used appealed least. The bivouac, a constricted hole under a huge erratic, if not the last, is certainly the penultimate word in discomfort; on the other hand the crossing of the Tasman and final struggle up 400 ft. of moraine to the hut at the end of a long day is almost an agony. We arrived on the afternoon of the 19th, two students carrying most of our gear on their stalwart shoulders. That night we writhed and wriggled sleepless on the draughty, adamant floor. Dawn was too bad for a start, though the day turned out not unpleasant for idling round the bivouac. My aneroid sank steadily and a heavy shower ushered in unpromisingly the second night, which promised to be one of aggravated misery, especially to Vic, whose hip-bones are younger and tenderer than mine. Yet, when I turned out at 2 o'clock, a cloudless moon was transforming the world into a silvery miracle, whose focal point to my entranced eyes was Glacier Peak. All our woes were speedily forgotten under the magic influence of a breakfast of two eggs and a chop apiece and a cup of hot tea, imbibed by me through a glass tube in a vain endeavour to check the spread of ulcers on my snow-bitten lips, on which the intensity of the N.Z. ultra-violet rays, unable to affect the hardened hide of my cheeks, always wreaks a mean and painful revenge. Thus fortified by food and hope we breasted the long ascent to the snow dome. This time, knowing the best line, we achieved the crossing of the Rudolf and the rise of 3300 ft. in under 3 hrs. (3.5 to 5.55). Just short of the dome we stopped to bind on our crampons and discuss our mode of procedure.

Immediately above us rose the hoary head of Glacier Peak. Ever since I first saw it, its cap has been riven by a gigantic horizontal cleft, as though from the blow of a celestial battle-axe. This year the wound had partially healed and there remained only a great cavern fringed with mammoth icicles on the right cheek of the face presented to us. The face is an overhanging bulge of ice with a receding chin, from which a snow-ridge descends for some hundreds of feet, till it merges in a rock-buttress shaped like an inverted 'V.' The left-hand edge of this buttress, falling to the névé terrace, continues on a wave-crest of snow to the dome. This was the route attempted by Dr. Kronecker, and it was the great schrund at



Photo, H. E. Porter.

Glacier Peak, continuation of N. ridge.



Photo, H. E. Porter.

Glacier Peak and part of N. ridge.

the base of the buttress that forced him to turn. The schrund was still there: the rocks were steep and, to judge by the analogy of other easterly facings, almost certainly rotten; and finally we should have to traverse below the bulging ice-cap directly under the fringe of icicles. Having rejected this route we passed on to consider other ways and means. One was to switch across the terrace to the right, ascend to the divide near Conway and come back along the divide itself. The first part I had been over in 1925 and I believed the rest was feasible, but it was irritatingly roundabout, where every minute was likely to be precious. Could there be any reasonably safe route up through the icefall, which occupied the intervening space? Its activity was proved by the mass of *débris* piled on the terrace, and salvoes of new snow were already discharging on the slopes above the *séracs*. But after careful examination we thought we saw a line of advance by which we could get through the icefall before the bonds of the frost were loosed. The gain in time was so obvious that we decided to take the risk. We raced on to the *névé*, plunged through the *débris* and panted up to the first great schrund. The one bridge across the moat was weakly defended and we stormed it at 7.15 A.M. One by one the barriers fell, but the pace began to tell on the last steep 500 ft. rise, most of which required the axe and reduced us to a laboured crawl. But the danger here was infinitesimal, unless icicles from the ice-cap should take a most erratic course. It was not till 10 o'clock that with a delicious sense of relaxation in victory we flung ourselves down on the ridge 30 ft. below Glacier Peak and in full sight of the final steep rock-bastion of Douglas. Plastered as it was with snow and ice, it froze our hopes of a double triumph: we turned our backs to it and during breakfast viewed instead the ridge to Conway, at whose far end I had battered in vain five years ago. Breakfast over we trod our summit and dallied with the idea of going to have a look at Douglas. But we wisely refrained from wasting time and energy, which might be needed for the descent. For it was painfully evident that our route from the terrace to the ridge had neither merit nor attraction as a route of descent after midday. Already the first volley of icicles had been fired from the cavern-mouth, and horrified us by obliterating the most southerly zigzag of our morning staircase. With this retreat cut off, there was but one possible alternative, the ridge to Conway. Along this virgin ground we started at 11.15. For a time it offered the broad road proverbially

leading to destruction, but before any such regrettable fate befell us it had dwindled to the narrow way of salvation. Steep facets of snow, little gaps strongly corniced, rock-gendarmes veneered with ice-feather succeeded one another, never presenting too fierce an obstacle to energies flagging beneath the glare and heat, yet all the time demanding the closest concentration on the task of the moment. Rope-length by rope-length the ridge receded behind us till at last the gap appeared, the highest point of the 1925 attempt. From here on the way was known and the strain relaxed. We cut round the great gendarme known as Bristol Top, contoured across the slope of Conway and quickly sank to Frenchay Col after $3\frac{1}{2}$ hrs. on the ridge. Cloud was pouring into the col from the W. and there was no temptation to linger long over the necessary meal. We waded down to the terrace, crossed the avalanche débris as low as possible, regained the dome at 4.5 and the bivouac at 5.45 P.M. From the start we had hoped, but hardly dared to expect, that we might get back in time to avoid another night in the bivouac. We had succeeded, and it was just as well, for though the sun was still shining in the valley, our view from the heights had told us that the next storm was not many hours away. By 7.15 we were all ready for the long trudge to the Ball hut. Dusk began to encircle us as we reached the half-way house of the Pineapple Rock. We lit the lantern and crawled mechanically on. Vic led unerringly over the wilderness of moraines, though there was no light in the hut to guide him. By 10.30 we were snug under a friendly roof. Before morning it was snowing heavily. Once again we chuckled with joy at having outwitted the weather-fiend.

Glacier Peak had fallen at last, and Douglas is now the only great peak on the divide not climbed from the E. I do not think it will ever be climbed, as we had hoped, by way of Glacier Peak. Our route through the icefall can only be possible very early in the season, when the rocks of Douglas are at their worst. Had we persevered and pushed our attack home, we should infallibly have been benighted and our chance of emerging alive out of the snow-blizzard of the ensuing night would have been small indeed. I have shot my bolt and failed, but no mountain of this height can be impregnable. The ascent will be completed some day, probably from the left-hand end of the terrace; but the eventual victors will have to steer between the two horns of a baffling dilemma: early in the year, before the great schrund at the

inner edge of the terrace opens out, the rocks will be in vile condition ; by the time the rocks clear the schrund may well be impassable, as we found in 1925.

Returning, not altogether dissatisfied, to my wife's home, I spent the next month organizing at leisure an expedition to Mt. Aspiring (9975 ft.), the queen of the mountains of Otago, in company with Hugh Chambers and Norman Murrell. Chambers and I had long meditated a visit to this glorious and still little-known district. Years ago he had called my attention to two superbly named virgin peaks, Stargazer and Moonraker, not far from Aspiring. Would that the same bright imagination had been at work in the naming of the peaks and glaciers round Mt. Cook. The most cursory study of the map will show how strange and haphazard is the medley of names imposed in that district. One accepts with equanimity the fine and worthy surnames of the early navigators, La Pérouse and Dampier, Tasman and Cook,² who first brought N.Z. to the ken of the old world. One welcomes, too, the recognition of the early N.Z. explorers, Haast and Lendenfeld, Douglas and Harper, Mannering and Graham and others. There are a few excellent descriptive names, Minarets and Coronet, Unicorn and Dilemma, Nun's Veil and Priest's Cap, Glacier Dome and Footstool,³ the significance of which can be interpreted by the weakest fancy. My objection is to the host of personal names of people who have little or no connection with the district, and especially to the names of Teutonic statesmen and Swiss guides, complete strangers to the country, such as Bismarck, Roon and Moltke, Baumann and Anderegg, to select a few at random. And why should the most beautiful and unique glacier in the whole world be saddled for ever with the name of Franz Josef, just because some of that monarch's former subjects, forsaking the land of their birth, became eminent scientists in a British dominion? If I had my way I should ruthlessly expunge all these and many

² I once saw a letter at the Hermitage addressed to A.B., Esq., c/o Thos. Cook and Son, Mt. Cook. It looks as if some moderns think that the great travel-agent rather than the great sea-captain is immortalised in this case.

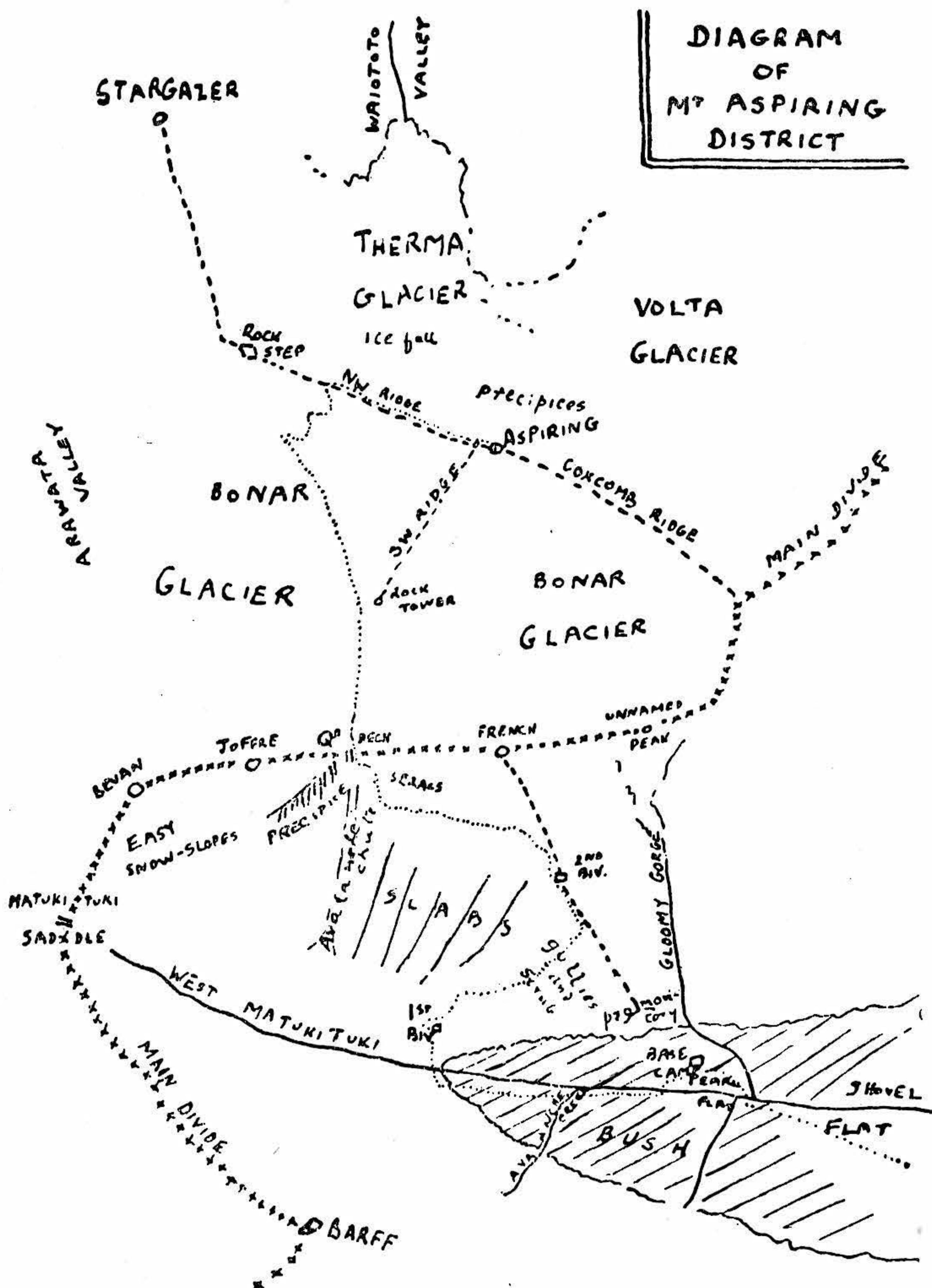
³ Footstool should surely have been allotted to St. David's Dome which, as seen from the Hermitage, has almost the shape of a hassock and is exactly placed as a footstool to Mt. Cook ; whereas in the mountain so named it is not easy to detect any resemblance to a stool, and its position in relation to Mt. Sefton is much more in the nature of a hot-water bottle at the foot of a bed.

others from the map, boldly substitute Aorangi for Cook, Horo-koau for Tasman, Maunga-atua for Sefton, so as to have Maori names for the three most imposing mountains of Maoriland, even if it cannot be established for certain that the natives did so designate these peaks ; and I should beseech the scholars of the country to find or invent a musical Maori name for the Franz Josef, not to mention the equally glorious Fox glacier ; much more would I do, if I had the power ! But this is all an idle dream, the vested interests of the possessors will never be upset. To my intense disgust I myself have been the means of adding to the class of name I deprecate. When Kurz and I explored the unnamed passes between Tasman and Lendenfeld and Haast, we exercised the privilege of suggesting suitable names to the Board, which controls these matters : the Board rejected our proposals, and despite my protest insisted on applying to the passes our Christian names !

To return to Stargazer and Moonraker. It was the names alone that attracted us, and we had nothing more to go on. For despite their proximity to Aspiring, and though Aspiring had been three times ascended, no photograph of it existed and no human eye had seen it at close quarters, since each ascent had been carried out in cloud and rain. Nothing being known of them, we felt an unreasoning confidence that they were inconspicuous enough on the map to have aroused no curiosity in other breasts than ours. To our amusement, however, we found that exactly the same belief had been entertained for years by the energetic party, headed by Mr. Miller, who made the third ascent of Aspiring on the last day of 1927 and have since devoted all their holidays to the further exploration of its neighbours. They, too, had been hoping and, indeed, still hoped, to make the first ascent of Stargazer ; yet they unselfishly gave us all the information in their power, and exhibited for my benefit their excellent slides and moving pictures, the fruit of three seasons' work. I was glad to be able to repay their kindness to some extent, before I left the country, by supplying them with photographs of Stargazer, which well show the nature of its defences and prove that the mountain is no less beautiful than its name, and by assuring them that their first serious competitors had retired from the field.

Murrell, the third member of the party, is an officer in the Forestry Department and had been given three weeks' special leave of absence to join the expedition by the great courtesy of Mr. Phillips-Turner, the Director of Forestry. He was born

and bred in this part of the country and had played a most useful part in Mr. Turner's first attempt on Tutoko. An



By courtesy of N.Z.A.J.]

expert bushman and fine mountaineer, he contributed a store of experience which was equal to every emergency ; an invaluable asset in a region, access to which is still complicated by the primitive obstacles of dense bush, scrub and unbridged rivers, which a little rain transforms into torrents. The hardy young men of N.Z. in increasing numbers are penetrating

these fastnesses, and each party does something to improve matters for the next. Carrying 60, 70, or even 100 lbs. on their backs, they march methodically on, spend days of fierce rain and freezing snow in flimsy tents, and emerge smiling on the all too rare days of sunshine to assault their coveted peak or pass. Reading their modest accounts of their adventures, I envy them their hardihood and perseverance, but shrink from imposing the same burden on my own shoulders. Chambers agreeing with me on this important detail, we arranged to take horses and a packman to the furthest possible limit and to leave the packman in charge of the base-camp, thus ensuring a lifeline to civilisation and freedom from the routine duties of camp-life. The party assembled on February 7 at Pembroke, on Lake Wanaka, the nearest township to the Aspiring district, we three motoring from Dunedin. Vic Keen, the packman, arrived with the horses from Makarora at the other end of the lake, where he had spent six months culling deer under license and had accounted in that time for 626 out of the two million head estimated to have sprung from the various batches imported between 1850 and 1900. Such supplies as we had not brought with us we had ordered in advance from the local store and there we collected them in the evening. We had allowed for an absence of three weeks on a not ungenerous scale, and the bulk to be handled was astonishing. Our commissariat included one novel and most successful line of tinned goods, namely, bread put up in 2-lb tins, an invention of the late Samuel Turner, which can be obtained to order at a very reasonable price from the enterprising Dunedin firm of Irvine and Stevenson. If heated slightly before use, it will taste fresh for some weeks, and even when stale will make delicious toast before a camp-fire. Next morning Keen started off with the three horses before day-break, and we followed later with all the stores in a hired car, which achieved the first stage of the journey to the Niger hut, a distance of 28 miles, in two hours. Here, while waiting for Keen, we parcelled out the stores into two categories, 'Wanted at once' and 'Wanted later.' By the time we had secured the former lot firmly to two of the horses, leaving one more or less free to carry us across the river it was nearly 4 o'clock. Murrell now went across to Mt. Aspiring station to collect information about fords and bivouacs from Mr. Aspinall, the manager, who had made the fourth ascent of Aspiring early in the spring with Miss FAMILTON and Frank ALACK of Waiho. We others proceeded up the W. branch of the Matukituki

river, fording it for the first time, where it debouches into the main valley, up which we had come, between two high bluffs, known as the ' Gates of Death ' by pessimists, or as the ' Gates of the West ' by the more hopeful or euphemistic. A couple of miles beyond we made our first camp, as night fell, in a little hollow at the base of a coppice of the N.Z. beech, *Nothofagus Menziesii*.

I must now devote some space to an account of the country ahead of us. Descriptions of a complicated tract of country, unaided by a good map, seldom convey a clear picture to readers totally unacquainted with the district. The official map of the Otago mountains is of very little use, consisting as it does of a few names, fewer trigonometrical points, some wrongly plotted glaciers and snowfields and vast blank spaces : this is of course inevitable, as the N.Z. Lands and Survey Office has no funds available for the production of a map like the Siegfried, nor, indeed, is there any demand for one. Being unable to supply a proper map, I shall try and concentrate on the essential features and points of chief interest to mountaineers. Mt. Aspiring, the highest peak of Otago, like Mt. Cook, the highest peak of the island, is not on the main watershed, though both are connected to it by one of their main ridges. Aspiring lies wholly to the W. of it, hence the first attempt to climb it, by Dr. Teichelmann with Alec Graham, was made from the W. coast by the Waiototo valley. They appear to have encountered such obstacles in gorge and bush and flooded rivers that by the time they had struggled through them they had neither time nor stores left for the mountain itself. They did, however, secure some splendid photographs, which show that the Alpine difficulties still ahead of them were considerable. The first ascent was made by the late Major Bernard Head⁴ with Alec Graham and Clarke from the opposite direction on November 23, 1910 ; the second took place in 1913 ; the third in 1927 ; and there were three more this season. All these followed in Captain Head's footsteps with only minor variations. The valley of approach is that of the W. branch of the Matukituki, which from its junction with the E. branch runs first W. and finally almost due N. to the main divide at the Matukituki Saddle, its total length being about 16 miles. While horses have to ford the river no less than five times, pedestrians can follow the true right bank almost to the head of the valley without much

⁴ *A.J.* 25, 184 ; 34, illustration facing 50.

scrambling. The lower belts of bush have narrow tracks through them which are unmistakable, once the entrance has been found. With care, patience and a certain amount of luck, horses can be led as far as the last stretch of bush, some 10 miles up, where a small clearing, named Pearl Flat after the first pack-horse to penetrate so far, offers a convenient site for a base-camp. Above this the bush crowds down to the river on both sides, and is choked with a high undergrowth of fern which conceals impartially hummocks and hollows. In the autumn this fern throws off myriads of spores, which are as irritating to the nose and throat and eyes as a combination of snuff and tear-gas. Even with the help of the faint track, made by the infallible instinct of the deer along the line of least resistance, the penetration of it with heavy packs involves exhausting labour. Having escaped from the bush, one sees for the first time the preliminary stages of the Alpine work ahead. Straight in front is Matukituki Saddle, at the head of the valley, which now opens out and is carpeted with dwarf scrub and a profusion of mountain lilies and *Celmisia*. To the right of the saddle the divide makes a sweep to the E., passing over Mts. Bevan, Joffre, French, and a fine unnamed peak, after which it swings back to the north to a col, whence rises the great Coxcomb ridge of Aspiring. These three features, the Coxcomb ridge, the col, and the divide, form the boundaries of a great plateau of ice, the névé of the Bonar Glacier, draining into the Arawata valley. The col between Joffre and French, aptly named the Quarterdeck, is the point at or near which all parties have crossed the divide in order to get to grips with Aspiring. It is in the ascent to the Quarterdeck that the main difficulties and dangers of the whole expedition are concentrated. From the col itself a huge tongue of ice streams down for quite 500 ft. before breaking away in incessant, thunderous avalanches, which in the course of ages have hollowed out a great groove almost down to the level of the valley. At first sight we were much intrigued by this icefall; it seemed most unlikely that the adjacent slopes of Joffre and French could be an adequate reservoir for such a volume of ice: the only probable solution was that it was an overflow from the Bonar Glacier, and this, as we verified later, was the surprising truth. So great is the precipitation on the W. that the level of the Bonar névé is almost as high as the divide, and being constricted in its upper reaches it relieves the congestion by this overflow into another drainage system, which finds its way eventually into the Pacific. I have

read that such an occurrence was not infrequent in the glacial ages, but know of no other instance in the temperate zones of to-day. To the right of the avalanche chute lies a vast stretch of steepish slabs, bounded at the other end by a ridge descending from the summit of French, well marked to within 700 ft. of the valley, below which point it sinks to the river in a scrub-covered bluff. Between the bluff and the slabs are two rough gullies, both of which provide access to the ridge. The upper limit of the slabs is a well-defined line at about 6000 ft., on to which abuts a snow-field at first gentle in slope but steepening sharply as it rises to the main ridge of French, so that a line of séracs is formed threatening the traverse of the snowfield. Such being the nature of the country, it follows that there is no method of gaining the Quarterdeck wholly free from objection. Three have been tried: one party made its way up the slabs, bivouacking on a sloping ledge; another, starting on easy ground to the left of the avalanche chute, was forced to cross it, and in doing so only escaped annihilation by the scantiest of margins: it then failed to pierce the barricade which that year extended right across the Quarterdeck, and finally spent $3\frac{1}{2}$ days and nights of storm and fog in a miserable situation close under the summit of French; yet another appears to have cut steps for 9 hrs., apparently between the top of the slabs and the ridge above. The only uneventful ascent was that of Miss FAMILTON's party in November 1929; it was early spring and the party walked on crampons from a bivouac on the subsidiary ridge of French across easy snow the whole way to the Quarterdeck.

To return to our own doings, Murrell rejoined us at nightfall with a most useful diagram of the best camp-sites and fords and with the welcome news that we might draw on Mt. Aspiring Station for fresh meat and such supplement to our stores as we might require. During the night one of the horses felt homesick and started to go home, but on the way he spotted a field of oats and dallied so long with its attractions that Keen was able to overtake him without excessive waste of time. Our start was delayed by this incident till 10.30 A.M. Luckily the weather was superb and we plodded happily up the valley without any fear of having to establish our base-camp in heavy rain. We forded the river four times, Chambers and I double-banking on the free beast and the others swarming up on to the mountainous pile of impedimenta burdening the pack-horses. The last ford was just above a little rocky gorge; the stream was deep and the current swift. Keen had a dog,

Paddy, an independent animal who disdained assistance on these occasions ; as a rule he plunged in with his master and landed 100 yds. or so down stream ; this time he looked at the stream and he looked at the gorge, and fear was in his eye ; but, seeing his master advance, after some moments of indecision, he followed in his wake ; despite his most desperate endeavours, however, he failed to effect a landing on the far side, and was swept before our horrified eyes into the gorge, to all appearance being three parts drowned, before a bend took him out of our sight. I thought of Captain Webb in the rapids of Niagara and hurried over to break the sad news to Keen, who had gone straight on without a backward glance. To my surprise he showed not the least trace of concern. Paddy, it seems, had been in many worse corners than that, and sure enough within an hour a very wet dog strolled into camp as if nothing unusual had happened. At 6.15 P.M. we set up the skeleton of the base-camp, which during the next week was elaborated by the skilful labours of Keen and Murrell into an open-air palace, subject to one single drawback, the impossibility of excluding the armies of sand-flies, which woke us regularly at dawn to be fed with our life-blood. During the night the wind veered to the N.W., and the change being speedily followed by an ominous cloud-formation at the head of the valley vetoed the establishment of a high bivouac for the day. As we breakfasted at leisure, Messrs. Williams, Booth and Stewart suddenly stalked out of the bush, having made the fifth ascent of Aspiring on February 7. Their packs at the end of their expedition were still enormous and it was a piece of luck that they had turned up in the nick of time to utilise our horses, which were returning empty to pick up the rest of our stores. After their departure Murrell set out to explore, carrying a heavy swag of tinned stuff to be dumped at the highest point he reached ; having pushed on for 5 hrs. he formed his cache high up in the gully to the right of the slabs, and returned master of the situation in half the time, a very useful day's work. Next day the storm began to brew in earnest in the 'Cauldron,' as the head of the valley has been well named ; before it broke Murrell put in a few hours with a slasher, improving the faint deer track through the bush, which still offered much resistance to progress. On the 12th the rain began in earnest and continued till the morning of the 14th. This district has an even worse record for bad weather than Mt. Cook. I cannot refrain from quoting in this connection an extract from the excellent little guide-book

to the Southern Lake country recently compiled by Mr. Moir : ' A few wet days must be expected, perhaps as much as a week, but even if the bad weather should continue for a fortnight there is no need to give up hope. The second week may be the worst, and by the third some definite improvement generally takes place.' I am told on the best authority that this statement is not intended to be humorous, but merely embodies the garnered wisdom of many seasons. Our own experience gave us no encouragement to distrust the accuracy of the indictment. On the afternoon of the 14th the rain having ceased temporarily we set out on the next stage. Heavily burdened we crossed the river once more on the slippery bole of a fallen tree, laboured, sweating and sneezing through the bush, recrossed the stream where two rocks arching towards each other nearly bridged the torrent, and a little later camped for the night at a height of 2800 ft. on a patch of turf hedged by Veronica scrub. The soft substratum permitted several hours of sleep, which had to last us for some days. We proceeded at dawn in good spirits and fine weather to the foot of the slabs, and swung to the right up the broad gully that led to the ridge. The gully was long, loose and tedious ; by the time that we reached the dump of tins we felt most disinclined to add to our loads and plodded on as we were. It was a pleasant change to tread the firm ground of the gently rising ridge. After ascending a few hundred feet we chose the site of our high bivouac and Murrell went back to retrieve the tinned stuff, while Chambers and I laboured to construct a wall round the tent. Later in the day Murrell and I explored as far as the Quarterdeck : most of the ground was easy, but there was one particularly nasty row of séracs in the direct line, the roar of whose discharges every few minutes caused much perturbation in our hearts. It was vitally important to find the best way across it beforehand, for get to the Quarterdeck we must or abandon the mountain, since direct access to French was barred by tier upon tier of huge crevasses. Traversing the snow-slopes above the slabs, we found to our dismay that we were forced to cross beneath the séracs, an unpleasant passage but less dangerous than it appeared from the bivouac. The ceaseless artillery of the séracs had worn out deep grooves, to which all but the largest salvoes were confined ; in between were intervals of comparative safety ; the angle being fairly low the grooves were not swept clean, so that choosing our time and skipping from block to block we got across unscathed, and half an hour

later attained the Quarterdeck by a snow-slope which extended between the séracs and the icefall. From the col we were lucky to get an unobscured view of our peak. Before us rose a shapely but unsymmetrical pyramid, connected to the main divide by its S.E. ridge, generally known as the Coxcomb ridge owing to the series of jagged gendarmes adorning its crest. Difficult though it looks, I have little doubt that, if it was set down in the Swiss Alps, it would be regularly climbed ; the same may be said of the S. ridge, which directly faces the Quarterdeck ; this is an extremely steep ice ridge, of which one section appears to be almost vertical, and joins the N.W. ridge near the base of the ice cap. Neither of these ridges has yet been prospected ; their time will not come till the next generation of mountaineers improves the line of communications and builds a stout hut within striking distance of the mountain. All the ascents so far made have followed the N.W. ridge, the left-hand horizon as seen from the Quarterdeck. On a fine day this presents a straightforward route of no great difficulty ; to get to it one strikes across the névé of the Bonar, passing close to the great rock tower at the foot of the S. ridge, traverses below the W. face, a mass of ice which has been known to detach itself bodily from its bed and spread havoc on the névé below, and mounts obliquely to the ridge at a point above a prominent rock-step, some 1800 ft. below the summit.

Having seen all we wanted to see we sped back to our little green tent for food and shelter. Tired and hungry though we were we had a thrill before we got home in the discovery on the shaly ridge 200 ft. above the tent of a marvellous patch of *Ranunculus*. There were three different species growing close to each other : first and foremost, one with a large white flower, as showy as that of the Mt. Cook lily (*R. Lyalli*), but with completely different leaves, which we rightly surmised to be the rare *R. Buchanani* of Otago ; secondly, the low-growing *R. Sericophyllus*, found throughout the Southern Alps, with bright yellow blooms and vivid parsley foliage ; and lastly, a lovely flower of pale sulphur with the foliage of *Sericophyllus* and the habit of *Buchanani*. We had never heard or read of such a flower. Could it, we wondered, be an unknown cross between the other two ? Before we returned to civilisation we dug up a plant or two, which survived to be planted in an Alpine garden, where many of the shy members of this family have been coaxed to display their beauty. One plant was submitted to an expert, who pronounced it to be what we had

hoped, an hitherto unrecorded hybrid. Its occurrence is the more improbable in that the parents do not as a rule mature their flowers at the same time.

Signs of a relapse in the weather were all too evident as we turned in that night, and sure enough a vigorous nor'wester began soon after dawn next day. For many hours our Edgington tent kept out the torrent, but in the end a remorseless drip entered at the stay-holes on the windward side, which no ingenuity of ours could staunch. At 7 P.M. the nor'wester suddenly ceased and within an hour we were in the grip of a freezing southerly. The saturated tent-walls stiffened and crackled with ice. Every cranny was tight shut, and every stitch of clothing was swathed round us, yet we lay shivering through the night-watches and longed for dawn. The southerly vanished as quickly as it had come, and the return of light showed us a white world sparkling under a bright sun. The wind was still bitter, however, and it took us the whole morning to thaw out. So in Homeric phrase, for two nights and days continuously we lay, consuming our hearts in weariness and grief. But when fair-haired dawn accomplished the third day, all our pain and grief were speedily forgotten. The sky was clear, and there was a cold, gentle breeze, which augured well for one day at least. Everything had been prepared the previous night, and despite the constriction of the tent we got away at 4.30, just one hour after struggling out of our sacks. When we came to the avalanche grooves we found them frozen stiff, and being without crampons had to cut every step across them. Our hearts were in our mouths, but nothing fell, and we were on the Quarterdeck at 6.25. Going strongly we struck the N.W. ridge at about 8000 ft. and breakfasted in hot sunshine from 9.15 to 10, looking straight at Mt. Cook and its great neighbours, clearly visible in a cold blue light for all the 80 miles of intervening space. In the opposite direction we saw the other two giants of the Otago Alps, Earnslaw and Tutoko, and Murrell pointed out to us the exact point on Tutoko where Mr. Turner's first expedition to that fine mountain had to retire defeated. To the west the lovely virgin peak of Ionia excited our admiration, but most fascinating of all was the eagerly awaited vision of Stargazer: it rises out of the northerly continuation of the N.W. ridge of Aspiring; its height cannot greatly exceed 8000 ft., yet the ice-graven features, cowled in black, of its eastern face are a miracle of majestic dignity. Alas, that it was not our fate to become closer acquainted with it.

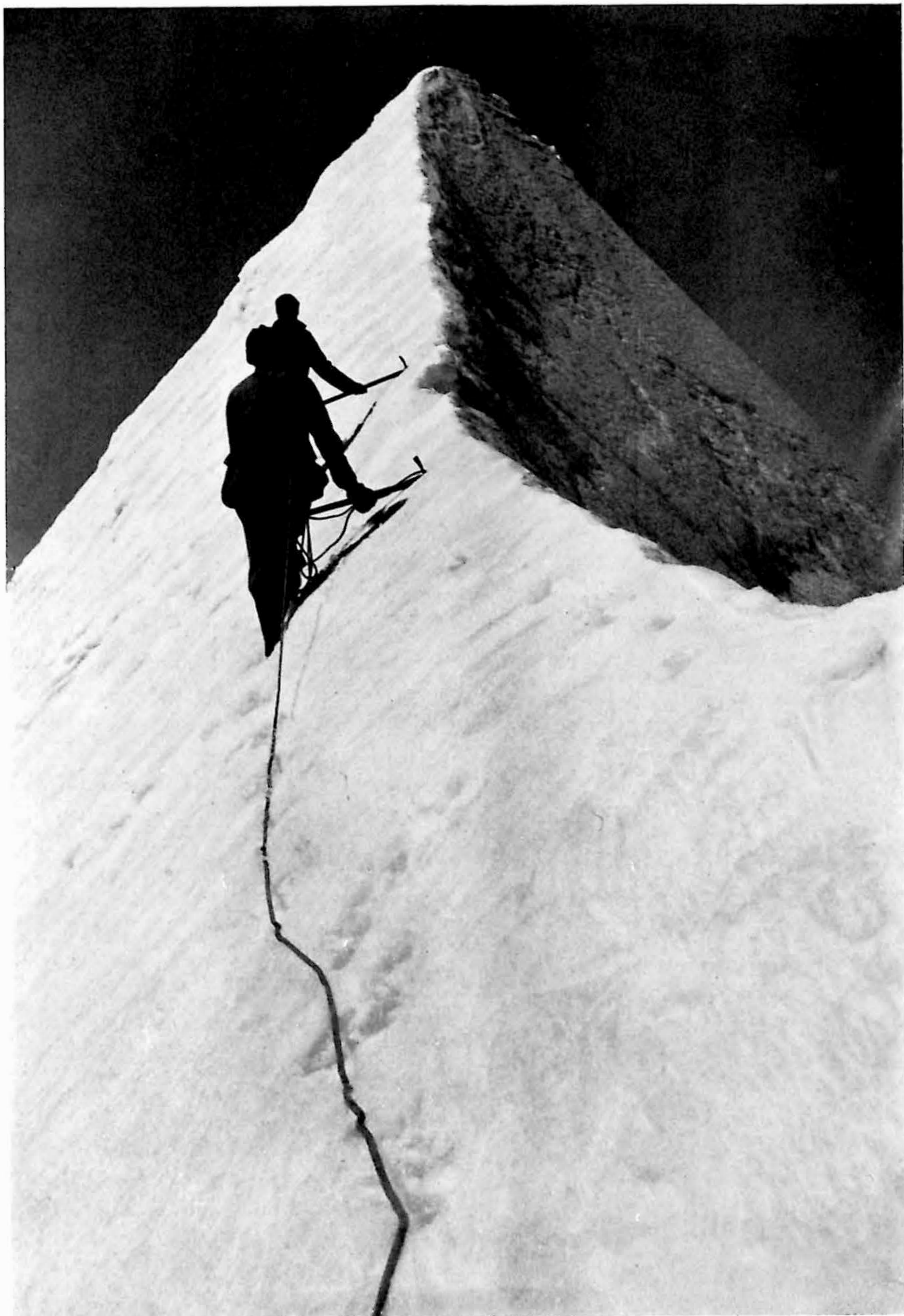
The ridge above us for many hundreds of feet was broad and easy, composed of slabby rock with much *débris* resting on it. By 11.15 we had arrived at the foot of the ice-cap, rising in a sharp-crested ridge to the summit 350 ft. above. A strong and icy blast from the S.E., which numbed at once any exposed limb, was scouring the ridge. With crampons and without wind we might possibly have walked up the crest of it; as it was, every foot of the way had to be hewn out of solid ice well down on the N. flank. Murrell put his back nobly into the task, but it was not till 1.45, after $2\frac{1}{2}$ hrs. of sustained effort on his part, that we put our heads for one brief moment over the top. Edgar Williams's party on February 10 had not reached this point till 7 p.m. and, taking a grave risk, had bivouacked on the ridge below the ice-cap. We had plenty of time for an unhurried descent, our only trial being the very violent contrast of temperatures to which we were subjected. The Bonar *névé*, when we got down to it was blanketed with a thick mist; our steps had all but vanished in the heat of the day and we soon lost all trace of them. Luckily the position of the sun was faintly visible, and steering a rough course by its friendly orb we arrived without much deviation at the Quarterdeck at 5.30. Once more the gauntlet of the *séracs* was run without mishap, and at 7 the labours of a perfect day were ended. What if another sleepless night was superimposed on the two foregoing, even as Ossa was piled on Pelion and Olympus on them both! Aspiring had been well and truly conquered and another dream, which had occupied my thoughts for more than a year, had passed into reality, there to remain as a happy memory for the years to come.

Our food-stock was waning to its end, and when we struck camp next morning the sole survivor among the host of tins was one of sardines. Going at ease we sauntered down to the base-camp in $3\frac{3}{4}$ hrs. and there celebrated our success with a Gargantuan second breakfast, into which Keen, relieved to see us back safe and sound, threw all his culinary skill and many carefully hoarded delicacies. As the feast ended, a new nor'wester began. This time we could afford to laugh at it, nor were we excessively distressed when it continued on and off for the next three days, our last days in camp. We would have liked to wander up to Matukituki Saddle and thence perhaps climb Barff or Bevan. From Bevan in particular we would have had a closer view of the beautiful Mt. Ionia and could have put to the proof an idea, mooted by Chambers, that



Photo, H. E. Porter.

Mt. Aspiring from the Quarterdeck.



Photo, H. E. Porter.

Summit of Mt. Aspiring.

the only wholly unobjectionable bivouac site for Aspiring lay in the col between Bevan and Joffre. At the expense of an extra hour or two up the valley it would be easy to reach by traversing to the right below Matukituki Saddle, and the drop from it on to the Bonar is quite simple and involves little loss of height as we could see from the ridge of Aspiring. I should certainly recommend future parties to explore this route before committing themselves to the Quarterdeck.

On the 22nd in glorious weather we dismantled the camp. As always happened on the days she was wanted, the mare could not be found. For a time she had been hobbled; but even the hobbles, which reduce a normal horse to helpless immobility were not sufficient impediment to her quick wits. She would buck along in a stilted semi-canter and even learnt to cross the dangerous ford near the camp without losing her footing. She soon broke the hobbles beyond repair and was left to roam at her will. Luckily she never went beyond the good grazing ground on Shovel Flat, a mile or so from camp, and from there she was retrieved by Keen for the last time on this occasion. There was not much left to pack except the camp-apparatus; we had finished the jam, tongue, marmalade, spaghetti, whitebait, tinned fruit, oranges, oatmeal, cheese, chocolate, milk, onions, potatoes, eggs and bacon, and had only a moderate surplus of bread, butter, soups, tinned beans and sugar. On our way down the valley we had one interesting peep at wild life; a pair of sparrow-hawks, the haughtiest, swiftest, most fearless of native birds, were chasing a ferret; the ferret is an interloper introduced many years ago to curtail the alarming increase of the rabbit; but it found a much easier prey in the unlucky weka, one of the quaint wingless birds of N.Z., now almost extinct where it used to flourish in thousands a generation ago. It was a pleasure to see the tables turned and the hunter hunted. By lunch-time a new nor'wester began to bank up behind us, too late to interfere with our escape from the valley. Before nightfall we were safely housed for the night at Aspiring station, where Mr. and Mrs. Aspinall lavished on us the wonderful hospitality of the outposts of civilization. Next morning Keen set off early with the horses and Mr. Aspinall set us across the river, now rising rapidly as the result of the storm which had broken during the night and looked like continuing for days. We had arranged with the driver of the car who had brought us up to return to the Niger hut to fetch us on this date. There was no sign of him when we arrived miserably wet and cold

at the hut ; hours passed and we were just resigning ourselves to a hungry vigil and regretting that we had dumped our stores at the Aspinalls, when the car appeared. It was touch and go whether we could now get through the rising creeks and along the greasy, unmetalled track. The skill of the driver was equal to the occasion and by 6 p.m. we were revelling in a hot bath at the Wanaka Hotel.

A fortnight later Clive Barker and I found ourselves at Arthur's Pass, the centre of another mountain group, nearly as far to the N. of Mt. Cook as Aspiring is to the S. Being within easy reach of Christchurch by the railway, which runs over to the W. coast at Hokitika, the district is becoming increasingly popular with the mountaineers of Canterbury, especially for winter sport. The mountains, though they only average about 7000 ft. are attractive to look at, being blest with snowfields and icefalls out of all proportion to their height. There is an excellent little inn below the pass from which we ascended the best-known peak of the group, Mt. Rolleston (7453 ft.). The ascent, if it provides no thrills, is rich in variety : forest, creek-bed, scrub, moraine, rock-gullies, snow-slopes, glacier and a final rock-ridge all provide their quota of interest during the six or seven hours required to attain the summit. It is also a happy hunting ground for the botanist ; nowhere have I seen the N.Z. edelweiss (*Leucogenes Leontopodium*) growing in such luxuriant festoons. We then moved on to the newly constructed Carrington hut at the head of the Waimakariri valley, of which Arthur's Pass is a N. offshoot. Like most of the rivers which drain the E. flank of the main divide, the Waimakariri has three well-marked stages. At its mouth and over the plains it cannot deal fast enough with its load of detritus, and tends to build up its bed above the plain, until a flood lifts it over its banks and it changes its course with disastrous results to crops and livestock. In its middle section among the foothills it runs swiftly in a deep gorge. Gorges being features of young rivers, one expects them to run comparatively straight. The Waimakariri gorge on the contrary careers from side to side in a series of typical meanders, some of which are almost severed at the neck. It looks like a case of a rejuvenated river, whose renewed erosive power is sufficient to deepen but not to straighten out its ancient bed. In its upper reaches it wanders down a widened valley, whose floor is choked with débris to an unknown depth. For mile after mile one plods through tussock-grass or pounds over rounded pebbles and boulders, till the soles of the feet ache

and throb. Here and there the stream forces the traveller against a bluff and he must either ford it or pierce the tangled undergrowth of the bush. The Carrington hut (named after a youth who had done much work of exploration in the district and lost his life in a daring attempt to canoe down the gorge) is situated at the edge of the bush just short of the junction of the two head streams, which have their source in small glaciers. They are mountain torrents, up whose stony beds one forces a laborious way with repeated crossings. On the one fine day allotted to us we chose the left-hand branch, called the White River, and climbed the mountain at its head, now known as Mt. Murchison (7810 ft.), the highest of the group. The tracks of many deer were visible along the creek-bed, and at the point where we reached the snows were so numerous as to suggest a jousting-arena or a parliament-hall; yet the beasts themselves kept studiously out of view. Mt. Cook, however, was not so shy; once again its giant bulk loomed up across 70 miles of space, its ice-cap gleaming sky-wards. This was my last ascent: six weeks of labour had given me five peaks. It was a bad season, even for N.Z., but I can congratulate myself on having extended my knowledge of the Southern Alps to some of its extremities.

SOME CLIMBS IN KOREA.

BY C. H. ARCHER.

I FEEL that it needs no little courage to write an article about Korea for the *ALPINE JOURNAL*. Though Korea is a land of mountains, only a small proportion of its ranges present any problems to the mountaineer: and from the point of view of height they are, especially by Asiatic standards, insignificant. The highest summit in the country is a mountain—9000 ft. in height—on the Manchurian border, called by the Manchus Chang-pai-shan (Long White Mountain) and by the Koreans Faik-tu-san (White Topped Mountain). The Japanese call it indifferently Long White Mountain (Cho-haku-san) and White Topped Mountain (Haku-to-san). It was ascended without difficulty by Sir Francis Younghusband and Mr. H. E. M. James, as long ago as 1886. It only remains to be added that the majority of the mountains with which this article is concerned are well under half the height of Chang-pai-shan.