'Old Guard' will again be fit for work over 25,000 ft. If I dared say such a thing, I would hope that the next expedition will find Colonel Norton as leader, but I would beg and pray him not himself to go one inch beyond the North Col, and if I had my way I would confine him to barracks at Camp 3. But I should be asking for trouble there, for I know that he would break out!

To finish up. I have another pleasant duty. As I have written in another place, during the whole of my life I have been singularly dependent on a *Fidus Achates* to be always at my elbow—and who, to the best of his ability, and I hope occasionally, though not always, with some success, has kept me on the right lines. His chief use, however, is that I can always turn and rend him for any mistake I myself make. That is the chief use of these gentlemen! I here and now offer my best thanks to the Adjutant, Mr. Spencer, and apologise to him for all the anxious moments I have given him during the last three years, which are rapidly depriving him of his remaining grey hairs. You may remember the schoolboy's remark about Cardinal Wolsey: 'It is well known,' said the schoolboy 'that Cardinal Wolsey remarked if I had served my God as I have served my King he would not have deprived me of my grey hairs!' I must now also offer my thanks to the Assistant Secretary, Mr. Oughton, for much assistance, and, last but not least, to the one to whom we all turn in any of our difficulties, and who is always ready at all times in the most unselfish way to come to our rescue—Captain Farrar.

Mt. Sefton and Other New Zealand Climbs.

By H. E. L. PORTER.

(Read before the Alpine Club, February 2, 1926.)

HOWEVER much Englishmen may run down their own country, it is undeniable that they find other lands good or bad in proportion as they resemble England more or less; and the reason why they find New Zealand exceedingly good is partly because it is in so many respects just a younger, less developed England, emptier of men and not yet a chequer-board of neatly fenced green fields, and by virtue of its youth favoured with several advantages over its parent; a land full of hope and enthusiasm and kindliness, and, what is more to

my present purpose, not yet ground down like so much of its parent to a peneplain of low relief. It is difficult, except to the north of Auckland, to get out of sight of mountain ranges, volcanic and otherwise, worthy satellites of the queenly Southern Alps. The latter, justly entitled by Mr. Harper in his official pamphlet an Alpine Paradise, cast a spell over me in 1924 which could only be unbound by returning in 1925, and it was with the liveliest pleasure that I found myself at the New Year travelling again the familiar road from Timaru to the Hermitage.

The first expedition of the season had been arranged weeks in advance with Professor and Mrs. Algie, Hugh Chambers, and the Chief guide Milne, and was to be an elaborate camp high up the Murchison valley, which had been unvisited for several years. When the time came, however, measles and other pressing occupations reduced the party to three, Jim Rose of Auckland, myself and Milne, and we in sympathy with the disappointed absentees cut down the original week to three days. The left bank of the Murchison glacier and river is bounded throughout by the Liebig range: the final peaks of this range to the S.W. are the well-named Priest's Cap and Nun's Veil, round which the Murchison river unites its streams before it joins the Tasman. The country between Priest's Cap and Mt. Hutton, 10 miles away to the N.E., is mostly virgin, and the expedition was chiefly one of exploration. With two willing students to help with the swagging of the camp-gear and commissariat, we left the Ball hut on January 7, crossed the Tasman glacier, forded the icy branches of the Murchison, and slowly mounted the Spaniard-ridden slopes beyond to a suitable camp site in a cwm below a small peak N.E. of Priest's Cap. Arriving parched with thirst, we found here fountains more fragrant than wine and an emerald turf most unusual in these Alps. The toil was now over, and the next two days gave undiluted pleasure. On the 8th we traversed Priest's Cap and went on to the Nun's Veil, hoping to gain some useful knowledge for the morrow. Comparison of a sketchy map with the landscape did little to elucidate our doubts, but next day we identified and climbed Pt. 8606, 3 miles to the N.E. From this point an unmapped subsidiary range runs due S., bisecting the head of the basin of the Jollie river. Without much expenditure of energy we added its first and highest peak to our bag. I named them by consent The Abbot and The Abbess respectively, to harmonize with the monastic flavour of Nun's Veil, Priest's Cap, and Acolyte. The same

Photo, C. Beken.

MT. COOK
from near the Hermitage.

1. *See note at end.*

R. M. ALGIE. FRANK MILNE. MRS. ALGIE. CLEM. WILLIAMS.
H. E. L. PORTER. JIM STOUT.

8. See note at end.

Photo, C. Beken.

CELMISIA.

2. See note at end.

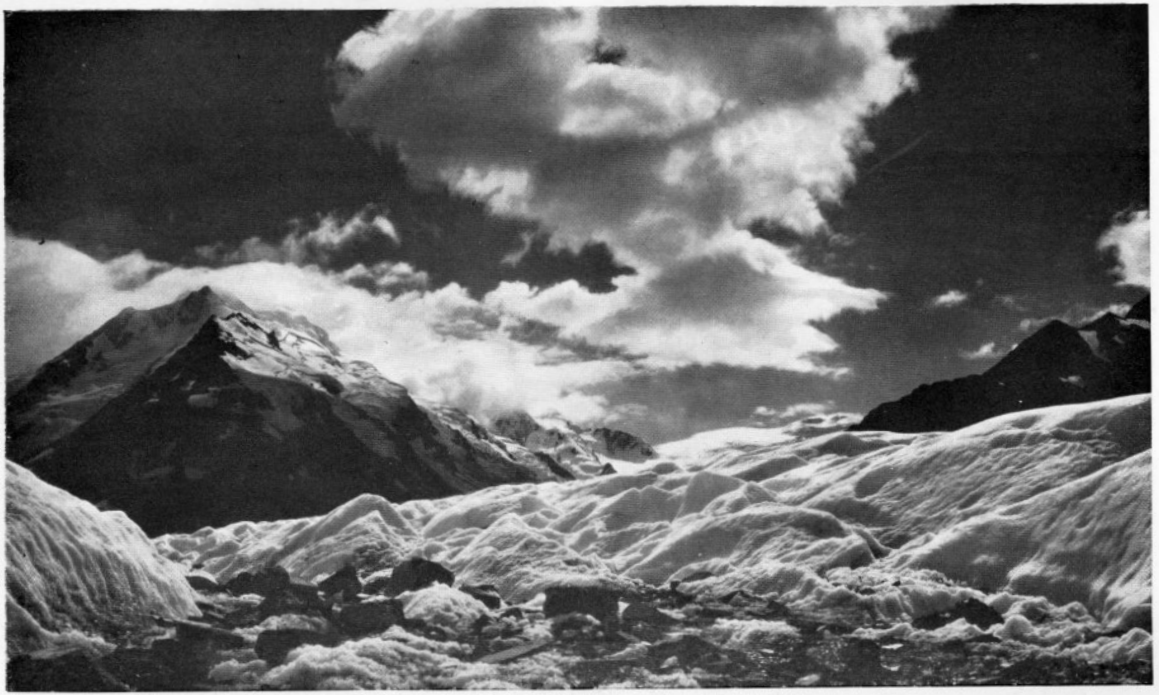
evening we broke camp, and slept snugly in the Ball hut, while rain mimicked machine-gun fire on the roof.

Chambers had now arrived, and with Milne to lead us he and I opened a campaign, the objective of which was to make the first ascent of Douglas Peak from the Tasman side, the only conquest of the mountain so far having been made from a bivouac on the Fox glacier by Teichelmann, Newton, and Alec Graham in January 1907. The obvious line of attack was to mount an ill-defined rib of some 1500 ft. from the Rudolf glacier to a névé plateau in a semi-circular recess, bastioned by Haidinger, Douglas, and Glacier Peak : this plateau forms a glacis, beyond which lie the triple defences of a big schrund, a 700-ft. wall of snow or ice, the latter probably predominating, and finally a steep rock-ridge, facing north and likely to be rotten. Our base was the De La Beche bivouac, a roomy cave under a huge erratic, much used by the pioneers and the scene of Mr. Low's grim struggle for life with a broken leg. On the way to it Milne proposed a more subtle opening gambit, which would outflank the two lower lines of fortification, namely, to strike the divide N. of Glacier Peak and follow the ridge southwards. This revised plan was accepted, and the battle began at 3.30 on January 14. We left the Rudolf by the next rib to the N., which gave out on a snow-slope perforated like a postage-stamp with grooves cut by missiles from a peculiarly evil face above. It was early, and nothing hit us as we switchbacked in and out of them to a projection of sound rock on the right, which gave good sport. The divide was gained near Frenchay Col by a long snow-arête. Traversing under Mt. Conway, we entered a gap, beyond which our ridge-scramble was in full view. It was longer and more bepinnacled than we had imagined, but seemed to present no obstacles of a nature to thwart us. But we had reckoned without one mighty adversary, the nor'-wester. We had met a few gusts on the way up, but now ran into a fierce gale, to which every little col acted as a funnel. We crossed the first, bending to the slope, and traversed the ensuing pinnacle on the leeside. The next gap was a sheet of hard ice : Milne strove valiantly, but the wind having removed his hat all but blew him too away before he was near the really exposed part. We called him back, and retired disconsolate to the foot of the final rocks of Mt. Conway, on the top of which (9500 ft.) we assembled at 10.10 in comparative calm. The second ascent of this mountain by a new route was some compensation for our failure, and we still had our old plan in reserve. Returning we avoided the

Photo, D. Theomin.

MT. HAIDINGER
from S.E.

4. *See note at end.*



Photo, H. O. Frind.

EARLY MORNING ON TASMAN GLACIER.

3. *See note at end.*

danger-spot of the morning by switching across the glacier and mounting to the névé-plateau on the other route, at which we had a good look. Milne, smarting under defeat, suggested immediate advance, but it was already 2 P.M. and the amateurs dissented.

The frontal attack was delivered a week later. This time an icy gale from the S. froze blood and brain, and it was a forlorn trio that, chattering with cold after four hours of exposure, huddled behind a fallen serac to brew a cup of tea for warmth. Thirty feet above, the wide rictus of the schrund snarled defiance at us, and every minute or two a slobbering discharge rolled down the wrinkles of the snow-face from two eyes of rock, the whole scene giving the impression of a rheumatic ogre in a hungry mood. We went up to look at it from a perfunctory sense of duty: it could indeed have been conquered up an avalanche-chute, if by a miracle nothing had hit Milne in the fifteen minutes required to cut up it. He rather wanted to try it, but we were adamant in our refusal to allow him. Douglas had triumphed again, but before we went home we had won another outpost by ascending Haidinger (10,100 ft.) to the S.E. This mountain has two summits: the southern peak has been left alone, since Fitzgerald's ascent in 1895 by the S. ridge, while the northern has succumbed twice, first to Malcolm Ross and Fyfe by the Forrest-Ross glacier and the E. face, and again to Mr. Simpson and Clarke by the route we now took.

We contoured under the schrund and crossed it easily near the rock-buttress which bounds the plateau on the left. Above the rocks a snow-arête in poor condition led us to the divide. Milne had been confident that a southerly gale must blow itself out in a few hours, and he was perfectly right. A warm sun put new heart into us and enabled us to appreciate the magnificent view of Haast and Tasman which now opened out before us. Thanks to leaving the camera with the sacks below I missed a great opportunity, a loss which still vexes me, for Tasman exercises a fascination which will draw me back till I have attained sublimity upon its summit. Another hour took us to the top, most of it being spent in overcoming the resistance of an ice-bound tower, which the previous party had given up and evaded by the ice-slope below. The whole ascent had taken us eight hours.

Milne left us next morning, and Chambers and I transferred to the Malte Brun hut, from which we made, on the 23rd, the first guideless traverse of Malte Brun, going up the N. face

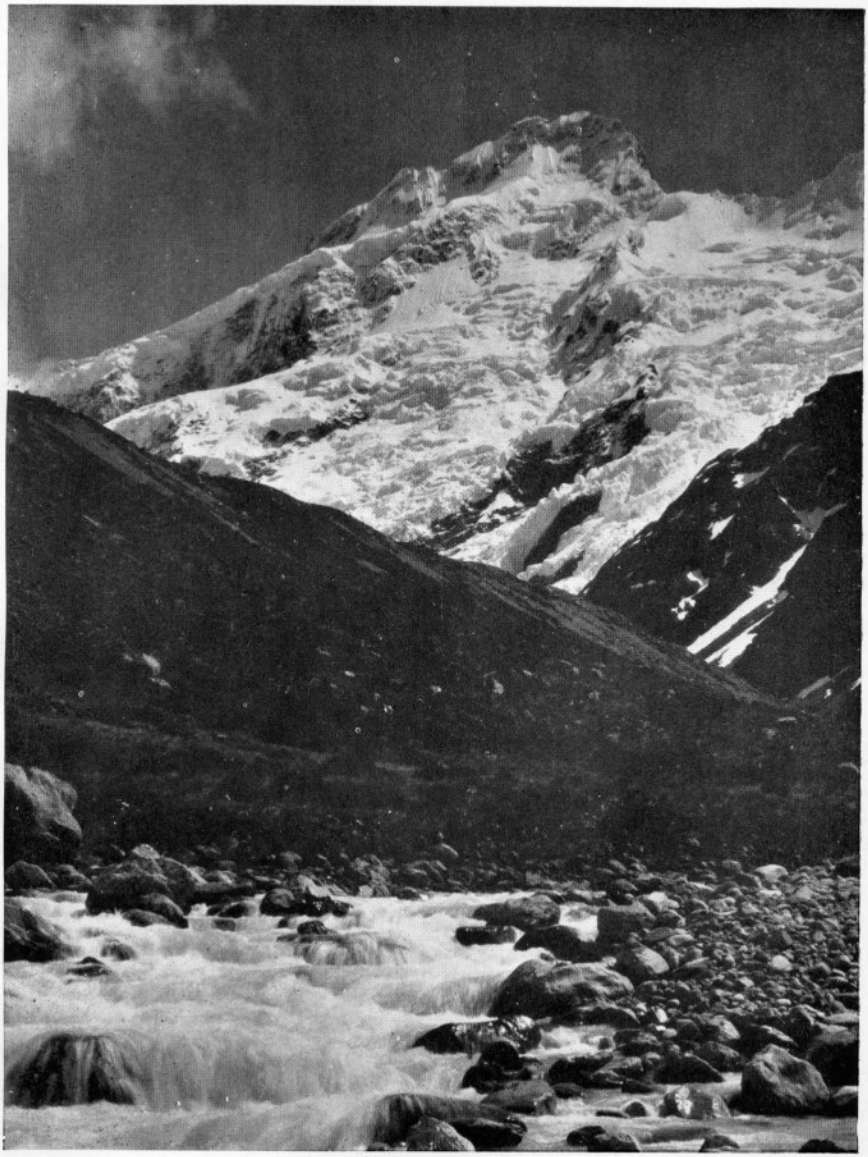
and down the N.W. ridge. The day was almost perfect, and the climb without incident, except for the almost miraculous escape of my sack, containing all our food, from a 700-ft. leap to destruction. We all know the agony of the owner of a runaway sack during its preliminary hops and skips. This one after an eternity pulled up on a patch of ice on the very brink of an abyss, and the dilemma of a peak without food or food without a peak was not presented for decision. The next few days were spent in two treks to the head of the Hooker glacier with the Algies and Milne. The design was to climb St. David's Dome, whose summit was still immune from feminine feet, but we did not for one reason and another get beyond Harper's Saddle; our toil, however, was amply rewarded by the near view we obtained of the vast, silent cirque at the head of the Hooker and the western route up Mt. Cook.

Milne was now free for a day or two, and my long-cherished wish to attack Mt. Sefton (10,354 ft.) had its first chance of fulfilment. The ascents up to the present date have been as follows:

(1) In February 1895, by Mr. Fitzgerald and Zurbriggen. Route A.
(2) In December 1909, by Mr. Earle, Capt. Head, Clarke, and Alec Graham. Route B.
(3) In March 1912, by Mr. Turner, Darby Thomson, and Bannister. Route B.
(4) In February 1913, by Miss Du Faur, Peter Graham, and Thomson. Routes A and B.
(5) In March 1914, by Mr. Frind, Conrad Kain, and Young. Route C.
(6) In February 1916, by Mr. Turner, Peter Graham, and Frank Milne. Routes A and B.
(7) In February 1926, by H. E. L. Porter and Frank Milne. Route A.

Three different routes have been achieved:

(A) Fitzgerald's. From the Hermitage to the Sefton bivouac at the head of the rib between the Huddleston and Stocking glaciers, then up the névé till it is possible to cross the Huddleston to a rib of rock and snow leading to Tuckett's Col at the foot of the N.E. ridge and by this ridge to the top.
(B) Earle's. From the Douglas Rock in the Copland valley up Stony Creek to a saddle on the Karangarua range,



Photo, F. Milne.

MT. SEFTON
from near Hooker Suspension Bridge.

9. *See note at end.*

Photo, C. S. Barker.

MAIN DIVIDE FROM MT. COOK TO MT. CONWAY
Seen from Malte Brun.

5. *See note at end.*

Photo, H. E. L. Porter.

HUDDLESTON GLACIER.

7. *See note at end.*

then over the névé of the Douglas glacier and up the W. snow-face of Sefton.

(C) Frind's. From the Müller glacier across the E. face of Mt. Thompson to Brunner Col, across the Brunner névé and slabs W. of Mt. Brunner onto the Douglas glacier, joining B route at Karangarua saddle.

The lower part of the latter route looks exceedingly perilous, the whole face being raked by falling ice. It has never been repeated, nor have I met anyone, except Mr. Frind, who views the line taken without a shudder. Mr. Earle's route is said to be free from technical difficulty: it was used on the third ascent, and by the fourth and sixth parties for descent: the objection to it is that the base you start from and return to is miles from anywhere: once across the divide you are at the mercy of some of the most capricious elements in the temperate zones. From my own experiences in the Copland valley, which will be recounted later, I can appreciate fully Miss Du Faur's graphic narrative of her hazardous descent to the Douglas Rock in storm and darkness. The greater part of Fitzgerald's route is visible to spectators at the door of the Hermitage. From that view-point Sefton is by far the most impressive feature in the panorama, and is in consequence the most popular target for the tourist's camera and the artist's brush in the district. What rivets the attention is the mass of glittering ice: one tremendous hanging glacier, the Ngakanohi, displays a wall of ice said to be 400 ft. high, where it pushes over the brim of a precipice in five minute avalanches day and night, whose roar can easily be mistaken for distant thunder forty miles away on the Mackenzie plains.

I will preface my own description with a few extracts from the impressions of previous visitors to illustrate and explain the feeling of awe and almost horror with which it has come to be invested in its own country. Here is Zurbriggen's considered judgment: 'Never, I can truly assert, have I found a mountain so absolutely dangerous as the peak we had just surmounted. It was more difficult than Monte Rosa from the Macugnaga side. I would never try it again by the same face. We had reason however to be well pleased with the result of our climb after our seven ineffectual attempts. The New Zealanders call Mt. Sefton their Matterhorn, and its ascent had been deemed impossible by all. It would be hard to find rocks in a more frightful condition or crevasses more appalling to negotiate.' Fitzgerald and Miss Du Faur have much to say

on the atrocities of the Huddleston glacier, but both reserve their main fire in order to deal adequately with the terrors of the ridge. 'It was,' says Miss Du Faur, 'almost inconceivably rotten, lumps of shale-like rock piled one above the other ready to fall at a touch. : . . When it came to my turn to climb the wall, I marvelled more than ever how our leader had got up it unassisted and with but one hand. It hung out sheer over the Müller glacier, so that a falling stone, dropped clear, touched nothing for 6000 ft.' Fitzgerald at about the same point looked over the other side of the ridge, and this is what he saw : 'On the Copland side of Sefton is a vast precipice, which descends perpendicularly to a glacier black with the debris fallen on its surface from that ever-crumbling mass. This precipice must be fully 5000 ft. sheer drop ; in places it seems to overhang.' Two pages later he says, 'We were soon climbing continuously up an almost vertical face of loose rock, clinging to it like flies.' Putting two and two together one might logically infer that Sefton is not built like other mountains in three dimensions.

Milne and I went up to the bivouac on the morning of February 3. The glass was high and fairly steady. There being no water near the shelter Milne went off to find some, while I filled a basin with snow to melt in the sun and retired to rest: a little later, hearing suspicious noises, I crept out to investigate, and found two young keas cleverly balancing each other on opposite sides of the basin and scooping out my snow with rhythmical motions of body and beak, as carefully timed as the alternate hammer-swings of two navvies driving a jumper. There was so much ingenuity about their mischief that I had not the heart to stone them away, thereby doubtless encouraging them to further naughtiness in later life. At 2.40 we set out to explore a way across the Huddleston : for 800 ft. above the bivouac the route lies up easy snow-slopes interspersed with rocks : at the highest of these rock-islands we turned abruptly to the left, and for a time proceeded without hesitation through some magnificent crevasse scenery, till we came to a spot which from below looks very dangerous, where a huge fan of debris bears witness to the activity of the rotten rock-face above. We found that a wide crevasse, obviously of recent origin, extended right across the lower half of the fan ; the lower lip was actually higher than the upper, so that all new missiles were likely to be trapped in the gulf. Next came a narrow edge along a gigantic ice-fin, and so we arrived at the extensive avalanche-ruins, the crossing of

which was expected to be the most anxious episode of the reconnaissance: at close quarters, however, there proved to be far more space than we had anticipated: we were able to keep near the lower arc of the talus, and, being unroped, had perfect freedom to run should the necessity arise. A long passage through riven ice ensued, where vision was limited and experiment had to decide the way: we had hoped to traverse diagonally upwards on this section and so strike the rock-rib high up, but found that an enormous chasm, completely concealed till we actually stood on its lip, ran right across from end to end without a single visible weakness in all its length: in the end we had to forfeit some height, before we established contact with the rocks by cutting down a serac with an ominous cant: we then traced out an easier line on a lower level to connect with our tracks further back, and highly satisfied with our labours re-entered the bivouac at 6.30. Despite an ample meal and two sleeping-sacks apiece, it was not without a certain feeling of tension that we composed ourselves for rest, owing to an unusually lurid sunset.

When Milne got up at 2, the whole valley was filled with clouds, whose upper surface was some 500 ft. below us. The heaven above was also occupied by a variety of cloud-layers, one set which was drifting slowly from the west over Fyfe's Pass being particularly displeasing. Sefton was obscured, but Tuckett's Col was clear. We decided that a start was justified, though neither of us deep down in our hearts had much hope of success. Fortified for the struggle by eggs and bacon, we set out at 3.25, and each with a lantern went steadily up our track. No incident occurred during the traverse to the rock-rib, though the leaning serac which served as portcullis to the rocks seemed in the dim light to have been lowered a notch or two during the night. We now donned our 40-ft. rope, rather prematurely, for the rocks were perfectly easy. Before very long they dipped under a snow-arête, which was soft enough to be kicked up: during this stage of the climb we were very lucky to be able to adhere to the crest of the ridge all the way: the three minor schrunds, which broke the edge across, capitulated without resistance, while on Milne's last visit they had to be circumvented at great expense of time and energy. We reached Tuckett's Col at 7, quite an hour earlier than the most optimistic forecast, and went along the first fairly level section of the ridge, which consisted of some very unstable turrets, before halting for breakfast. This battered knife-edge was the only feature of the climb, to which Milne

confessed a dislike. We were reassured to observe that the western valleys were free as yet from advancing battalions of storm-cloud: the Footstool was quite clear, but a fog-bank still clung to Sefton, which lifted every now and then for a brief space and gave us tantalizing glimpses of what lay ahead. To our great joy there was very little wind and it was not cold. Immediately above us the crest of the ridge was draped every few yards with ice-wreaths: as we gazed at them during our meal, one of these detached itself and clattered down a shallow gully to the right, so we decided to work obliquely up the face on our left, till we had got above them. Before moving on I suggested leaving the sacks here, but Milne pointed out that since 1895 no party had ever descended this way, and that it was quite on the cards that we too might find it preferable to go down on the W. Discretion won the day, and the sacks were taken on. When we got out on the face we found it disgustingly loose, and when higher up it became steep as well we were forced to move singly and exercise great care. It was a joy to watch Frank's feline footwork here: there were places where a stone dislodged by him must have dislodged me, yet I do not remember any feeling of apprehension to mar my appreciation of his skill. A really nasty pitch landed us back on the crest above the ice, and for some time we made fast progress, on easy rock with a dip not much out of the horizontal. We now approached the foot of the step so well seen from the Hermitage or the Sealy range. Just below it the ridge bends gently to the right and sharply back to the left, the edge actually overhanging at the re-entrant angle thus formed: the pitch was short-circuited on the face to the left by a neat chimney of Cumbrian type, followed by a long pull-up to a shelf and a finish up a smooth slab. At the top of the slab we found one of the iron spikes which Zurbriggen had had made in Christchurch, and hammered into Sefton almost exactly thirty years ago. From subsequent study of Fitzgerald's book, it became clear that this was the scene of his famous and nearly fatal fall. A few minutes later we came on the other spike they mention: on the way down, seeing that they had lain idle for a generation and not needing them ourselves, we levered them out and brought them down as trophies. They were as good as new and still firmly wedged, so that this part of Sefton cannot be disintegrating very fast; in fact, the rock here, though still a variety of greywacke, was rather different from that below, being coarser in grain, less jointed and better cemented. Above us now were two splendid towers, each

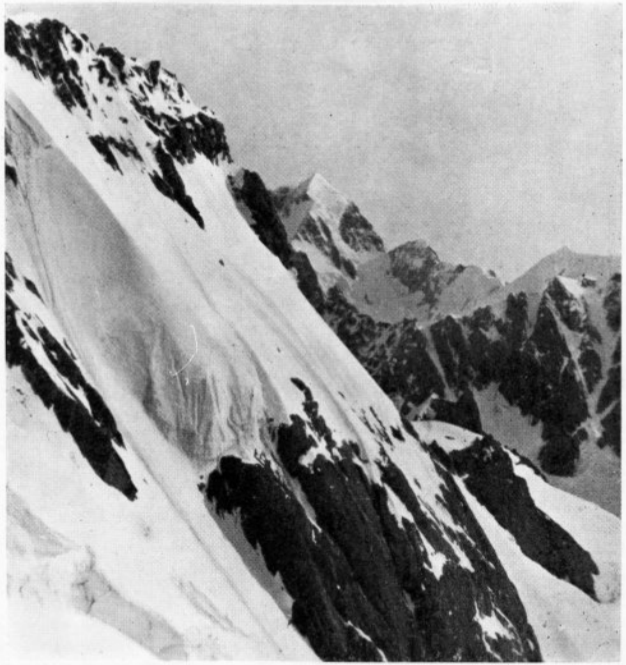
from 50 to 60 ft. high, and approaching the vertical, a sight to delight a rock-climber's eye: they were in beautiful order, free from ice-wreath and verglas, the quality of the rock was excellent, foothold was adequate and the occasional horizontal joints were exactly wide enough for the insertion of fingers. It is curious that no previous party had tackled them, each preferring to cut up the ice-slope on the western flank. Miss Du Faur even goes so far as to say that the upper tower was probably invincible: Milne, who had led the last ascent, could not recollect why he had avoided them on that occasion, but surmised that they must have been icy. They reminded me of Jones's route up Scafell Pinnacle from Deep Ghyll above the initial crack, but were not so difficult. In a very short time we emerged at the top of them with our tails triumphantly aloft, separated from the summit only by some 300 yards of gently ascending ice, of that delightful kind where four or five well-directed blows suffice to produce an adequate step.

The summit was reached at 9.30. All the way up the ridge we had been enveloped in mist, which gathered and parted and gathered again. My camera was a useless burden, but we did get one glimpse of Cook and La Perouse looming through the shroud. After a brief halt we returned to our sacks, which we had left at the foot of the towers, having decided by then that there was nothing to prevent us returning by the way we had come: here we paused for quarter of an hour to consume the tin of pineapple, which invariably crowns a successful guided ascent in the Southern Alps. The mist now began to crystallize into snow-flakes, which pursued us on our downward path. We had every incentive to hurry, and our pace was not slow. When we neared the foot of the ridge, we held a consultation, as a result of which we agreed to defy the ice-wreaths rather than face the descent of the rotten wall, which now had the added disadvantage of being messy with new snow. We kept to the crest and found the climbing there perfectly easy, nor did the blobs of ice seem anxious to leave their moorings, so that we were safely back at the col before much damage was done. Below the col the surface had softened during our absence: in this altered condition one steep-sided little arête was quite unpleasant, anyhow to me with fogged spectacles: I preferred kicking into the slushy sides of the thing with arms on top, while Milne walked steadily on the edge a few feet behind, prepared if I began sliding to jump over the other side. After this there was no more trouble, and we made such good speed that Clive Barker, who had

Photo, C. S. Barker.

MT. BANNIE.

12. *See note at end.*



FINAL SLOPES OF MT. HAIDINGER.

6. *See note at end.*

come up to the bivouac to welcome us with a cup of tea and had watched us descend the rib, had only started the billy about five minutes before our arrival at 1.40. Our total time of $10\frac{1}{4}$ hours appears to be only a few minutes in excess of the best recorded time on this route to the top alone. This result was in no way premeditated, but was due entirely to the circumstances of the day: fear of a sudden change for the worse in the weather drove us on, and the excellent condition of the snow and rock almost everywhere contributed still more to speedy motion; further, we were a party of two with a good understanding and a liking for climbing together, based on many good climbs in each other's company.

Seeing that we were now out of its power, the snow gave up its ineffectual efforts in disgust, and permitted the sun to shine out for the first time. After a delicious rest we got back to the Hermitage before 5 o'clock, so early that everyone thought we must have failed, especially as the weather had looked so unpropitious from below, and our friends came out with long faces, prepared to sympathize with our disappointment. For New Zealanders take a keen personal interest in the ascent of their famous peaks, even if the number who aspire to climb them is still regrettably small.

Any estimate of the difficulties of a mountain based on only one ascent must be too incomplete to be of much value, and I find it harder than usual to get this particular route into proper perspective alongside other climbs of my acquaintance. Admitting that we were lucky in our conditions, I believe that Sefton's rank in the aristocracy of mountains should be reduced a grade: one thing is certain, namely, that Zurbriggen's uncompromising verdict was largely due to extraneous factors, such as the virginity of the peak, a narrow escape from a fatal accident, and the mental fatigue engendered by the failure of seven previous attempts. It is certainly not a route for novices or weaklings, and it must be excessively dangerous in a high wind, such as Miss Du Faur had to cope with. Of its two main episodes, the glacier proved less risky than it looked, and on this occasion involved very little axe-work; the crevasses are truly gigantic, but no party has yet failed to get across in reasonable time. Of the 1200 ft. of ridge the upper steep part is admirable if free from ice; the lower part is undeniably in an advanced stage of decomposition, but the average inclination of its crest is not high—*pace* previous writers—as indeed a glance at its profile will show. We came right down it, unable to see more than a few feet ahead, and

Photo, H. E. L. Porter.

W. FACE OF MT. COOK
and Head of Hooker Glacier.

14. *See note at end.*

Photo, H. E. L. Porter.

MT. HAMILTON AND MALTE BRUN.

13. *See note at end.*

Photo, C. S. Barker.

Photo, H. E. L. Porter.

RUDOLF GLACIER.

10. *See note at end.*

I was amazed to find myself at the bottom without once having been extended : and, rotten though it is, I could name at least two ridges in the Alps which could give it points and still win. With Milne as leader I enjoyed the day enormously, and was delighted when he said in the evening that he considered it one of the red-letter days of his climbing career.

His services were now claimed by others, and my season ended with a guideless bout in the company of Clive Barker, who had been with Chambers and myself last year. After a training day on the easy Mt. Darby, we achieved on February 7 the second ascent of Mt. Bannie (8500 ft.), a more ambitious performance. Bannie is on that part of the divide called the Moorhouse range, which bounds the Müller glacier on the N. : it was first ascended by Mr. Frind and Conrad Kain in February 1914, by the nameless glacier on its S.W. flank, a tributary of the Müller. Our ascent of Darby had been made partly to get a look at this route, but the view was at too oblique an angle to be of service. We left the hut at 4.20, and reached the foot of the tributary glacier at 6. After a detour to the left to circumvent the lower ice-fall, we worked back and mounted speedily to the formidable schrund half-way up. This was not to be taken by direct assault but had to be outwitted. We had first to arrive at a ledge of refrozen debris under the overhanging upper lip, towering 25 ft. above us : the quickest route to it was over a huge pile of avalanche fragments some way to the left, but I disliked the seracs above and preferred to force a way over some well-cemented blocks which bridged the chasm across to the ledge at a point closer to the only spot where the lip ceased to overhang and broke down in height. Barker disliked the look of my causeway more than the alternative, but followed me across unmurmuringly. I had now to cut a staircase across and round a series of dorsal fins, which had sheared off from the back-wall, and then up a nearly vertical 10-ft. corner to attain the ice-slope above, which lay back at an angle of 55° for about 50 ft., then gradually easing off and finally retiring under snow. The schrund operations lasted an hour, and I was hard at work for another $1\frac{1}{4}$ hours before we reached a level place and paused for five minutes to enjoy some crystallized cherries and light a pipe. We now had a choice between continuing up the glacier to its junction with the easy W. ridge, or switching to the right and taking to the more interesting S. arête. For the sake of variety, and to save more step-cutting, we chose the latter. So we crossed another schrund and did battle with

some pitches, where a substratum of sound rock was overlaid with shattered rubbish. A tricky traverse, a vertical slab, and a short chimney with a bulge were surmounted in turn, and then by easy rocks we reached the summit at 10, after an all but non-stop run since 4.20. We took several photos, but unluckily clouds spoilt the view of the Douglas valley, which should have been most interesting topographically. My original plan had included the second ascent of Vampire as well by the virgin ridge on the Bannie side, but I was deterred by the thought of my steps melting in the afternoon sun, and regretfully gave it up. Having added a salmon to the solitary sardine-tin on the cairn, we began the descent at 11.10, and reached the hut at 3.30. This was Barker's baptism in real ice-work, and he emerged from it with great credit, standing up in his steps like a veteran.

Our ambition now was to make the circular tour to Waiho, going over Graham's saddle and returning by the Copland Pass. Armed with photographs and information kindly supplied by Murrell, who makes a speciality of this expedition, we made our way to the Malte Brun hut. Above the Tasman ice-fall we came across a fluffy little fantail fluttering on the ice and pecking at a dead moth. These friendly little birds live in the bush, and here was one cut off from its home by unbroken ramparts of ice and rock: it must have been carried right over the divide from the W. coast by the wind. It was very weak and tame, and flitted onto our heads in turn, as we stopped in curiosity. I carried him in my hat to the hut, but he was ungrateful and died in the midst of plenty. Next day we started at 4, crossed the Tasman and dropped onto the Rudolf over the lowest spur of the De La Beche range. The ice-fall of the Rudolf is impregnable, and is avoided by loose rock-ribs on the right. The névé above was in perfect order for us, which compensated to some extent for shoulders aching under heavy swags. At 9.15 we stood on the saddle and looked over onto the stainless radiance of the upper Franz Josef, the most superb glacier I have yet seen, and incidentally onto a derelict ice-axe forlornly perched on the lower lip of the schrund below; there was a ladder of big steps down to the edge of the upper lip, as of attempted recovery. Axes are expensive in New Zealand, and we were puzzled to account for its abandonment: the mystery deepened, when on inquiry at Waiho and later at the Hermitage, the only two avenues of approach, we found no one bewailing its loss and none of the hotel axes missing. We also saw tracks on the glacier, and knowing that there had

been no recent crossing concluded that they were the week-old vestiges of Murrell's last party. Had we been sharper, we would have realized that to be seen at that distance they must almost certainly be fresh, and would provide an unerring clue even in thick mist through the labyrinth leading to the Almer bivouac, our intended home for the night. This knowledge would have saved us some anxious moments on the top of De La Beche, which we now attacked from the saddle. De La Beche is the next peak to the Minarets, to which it is close in distance, though not always in time. Both of them are now usually climbed direct from the Malte Brun hut by the highly glaciated eastern flank, not without a certain risk. From the saddle a route could probably be made straight up the ridge, but we thought it would be quicker to keep to the snow as long as possible. When it got steep and icy, I cut back to the ridge, and we finished up 400 ft. of as good rock as I have met in New Zealand, and emerged by a pleasing chimney exactly at the cairn. After basking for a while I took some photographs, while Barker tried to procure a drink by melting snow into water-tight crevices with indifferent success. We were just meditating an advance upon the Minarets, when, looking down, we observed that the cloud-pall of the W. coast was much lower than when we left the saddle and was already obscuring some of the Franz Josef. Instant retreat was decided on, and the saddle regained in an hour. We were sorry to forfeit the Minarets, which looked very attractive, but we heard later that a great schrund guarding the rock-summit of De La Beche was found impassable not long after, so the cloud may have been a blessing in disguise. At 1.10 we crossed the divide and soon met the tracks, which we found to our chagrin were quite fresh, and had in fact been made by a party from Waiho the day before. We followed them on perfect snow to the half-way house of the Mackay Rocks, a whale-back in the centre of the glacier, and halted for an hour for a brew of tea, while our outlook got more and more limited. But our track held mists in derision and led us undeviatingly to the Almer bivouac, into which we crawled at 4, just twelve hours after our start. The shanty had suffered severely from snow-pressure during the winter and needs rebuilding: it gave us shelter, however, and supplied sleeping-bags. At 5 it began to rain, too late to harm us and just in time to settle the doubt whether we would be wise to make a dash for the Defiance hut further down in case of worse visibility to-morrow. No less than seven keas hopped, waddled, and screeched around our evening meal, peeping in

at door and window with heads cocked sideways. Even a direct hit with a pebble on the horny head of the boldest of the band did little to restrain their curiosity at the time, though it may have been in revenge for this indignity that one of the devils woke us both up from a sound sleep at 1 A.M. by executing a war-dance on the roof. It was a dance of several figures, and must have been highly spectacular: it started with a drunken shuffle along the ridge of the tin-roof, and after some experimental steps, accompanied by unearthly jazz-band noises, ended with a zigzag toboggan slide to the gutter and a return to the ridge, achieved not as any respectable fowl would do it by flight, but by means of beak, claws, and wings all convulsively clutching at every tiny excrescence on the way up. The kea is so clever that I can believe this performance to have been specially designed as an insolent parody or pantomime of human methods of rock-climbing, a mimicry in fact of—

> The hurried grab and scramble,
> Which often serve him as preamble
> To upward victories short but sweet,

if I may quote the words of a poet still living and here present. Finally he sailed away into the night with a chuckle of satisfaction, leaving us seething with helpless irritation and quite unable to see the joke at the time or go to sleep again. On the 11th, starting at 7.10, we dropped down by rock and scree to the junction of the Almer and Franz Josef: somewhere here we had to get out onto the main ice-stream, but I must confess to a sinking of the heart, when I looked at the serried array of shark's teeth ahead: for a hundred yards or so we followed a gutter between the two glaciers, till a reasonable way of escape presented itself. Shortly afterwards traces of ancient steps were noted with relief: once out and away from the edge, though it looked continually as if an impasse might occur at any moment, we did in fact move steadily forward, and in the end by a pleasing fluke got right through the fall with only one inexpensive rebuff. Passing the Defiance hut we kept straight on till we were face to face with the final crux. At some point opposite to a conspicuous promontory on the right bank a plunge must be made into another maze of bristling seracs, and a way forced through them to the beginning of a bush-track beyond. We had been warned that too early a plunge would drive us into the toils of Scylla on the promontory; if, on the other hand, we left it too late, a Charybdis of impossible ice would engulf us. We looked well, therefore, before we leapt:

our choice of a line was successful, if not very direct, and we were clear of the glacier and on the path by 9.30. The track runs through magnificent rata-bush, rich in tree-ferns and other glories, which serve as frames to vistas of purest ice: for, whether it is due to its great pace, said to be from 12 to 16 ft. a day, or to a smaller original load of debris, the Franz Josef has hardly any surface moraine, despite its numerous affluents. Suspension bridges span the turbulent creeks of the lateral gorges, and galleries are cut in the rock, where ice-scarred bluffs are still defiant: the difficulties, so vividly described by Mr. Harper, are no more, and the allurements of this magic glen are within the reach of all.

We reached Waiho soon after noon, and wired news of our safe arrival to the Hermitage, as promised: to our distress the parcels of extra clothes, which we had posted some days before, had not arrived, and we had perforce to be content with the meagre wardrobe we had brought with us. We had a hearty welcome from Peter and Alec Graham, great figures both in the New Zealand mountaineering world, who now run this hotel in partnership. We spent two days exploring the beauties of the neighbourhood, absorbing with great interest Peter Graham's stories of famous ascents of the past and studying his unique collection of photographs. On the 14th we set out on the 30-mile ride to Scott's house near the entrance to the Karangarua valley, Scott himself having come up the previous day with a party, guided by Murrell, doing the round in the reverse direction. I had a real live horse, not a moribund automaton with sore feet, such as the Hermitage horses inevitably become after a year or two of the Ball hut track, while Barker rode a splendid chestnut with the head of a Pheidian statue. For 16 miles the road winds through primeval bush, flourishing on ancient moraines, then after a long gradual descent comes out on the league-wide shingle-flats of the Cook river, in which the streams from the Fox, the Balfour, and the La Perouse glaciers are united. Many miles, however, of monotonous flats have to be covered before the river itself is reached. After fording its channels we completed the remaining 8 miles in a downpour, and arrived both very wet and one very sore from the unusual exercise, to be soon revived at the kitchen fire of the efficient Mrs. Scott.

Our objective for the 15th was the Douglas Rock bivouac. Taking on board a goodly stock of provisions, we got away at 9, Barker leading a pack-horse, kindly lent us by Scott. Our loads were heavier than ever, and the horse was a godsend,

carrying all our gear for the first 12 miles to the suspension bridge some way beyond the junction of the Copland with the main Karangarua valley. Here we dismissed him with our blessing to find his own way back, and shouldering with a sigh our swollen swags toiled on to the Welcome Flats hut, reaching it in a new downpour of rain at 3.15. This is a strongly built and capacious hut, which unfortunately cannot be permanently stocked like the huts on the other side owing to depredations by tramps and Maoris. At 4.45 we continued up the valley to find the Douglas Rock, said to be 5 miles farther on. Crossing the fine bridge over the Copland river, we sped over the 3 miles of shingle-flats and entered the bush above, finding the track a dripping thicket of toot and konini. I had reckoned that two hours ought to suffice for the journey, but at 6.45 there was still no sign of the bivouac: we persevered as long as we dared, and finally turned at a big creek and fled with all possible haste to try to regain the hut before complete darkness set in. We had been told that the rock was 50 ft. above the track and quite easy to overlook, but even so we had kept our eyes open, and the idea that we must have missed it was humiliating. Out on the flats the last gleam of light faded, but I had an hour's worth of candle, which sufficed to see us home. Without it we would almost certainly have been condemned to spend a night in the open, for the last half-mile had to be made between thick bush and a rapidly rising river, and was slow work even with a lantern. Night in the hut was rendered hideous by hosts of musical mosquitoes. Completely submerged, we had to listen through the night-watches to the multitudinous hum of the venomous pests, as they sought for avenues to our life-blood. On the 16th it poured without cessation: firewood gave out and more had to be collected; this was done in a garb reduced to the barest minimum, namely, boots, for we wished to start dry, if we ever did start. Luckily nor'-west rains at low altitudes are not as cold as they are wet. Mosquito-raiding was our chief other occupation; my pocket Sophocles, usually a mental sedative to me, came into novel use as a physical quietus to legions of *Anopheles*. The prospects were slightly better when we woke on the 17th; the rain had ceased and the sky was clearer in the W., though up the valley it was still thick. The mosquitoes were worse than ever at this early hour: it is a delusion that they dislike smoke; no fire could have produced smoke in a greater volume than ours, and they simply throve on it. It was a blessed relief to get outside: we ceased to

lose blood, but gained instead pounds of water, as we brushed through the waist-high grass. We had no aneroid with us to give us a hint whether the nor'-wester was waxing or waning: had we had one we would very likely not have started, for we discovered on our return that on this particular morning the glass was free-wheeling breakneck down a precipitous incline and was already lower than it had been for weeks. In blissful ignorance, and not without hope of a fine afternoon, we waded where before we had walked: the bush completed the work of the river, and by the time we stumbled upon the Douglas Rock, less than five minutes beyond our farthest point of the 15th, every stitch we had on was at saturation point. Hidden in the heart of a dripping wood, the bivouac looked little more attractive than the darksome hole where Errour had her den in the 'Faerie Queen.' Soon after leaving it we emerged from the bush, and the rain commenced; but before we were shrouded in the murky pall we had had one glimpse of the divide in the distance, and photographed the lie of the land onto our brains as well as we could, fearing we might lose the not very obvious track in the scrub and shingle we were now traversing. At 11.15 we crouched under an overhanging rock and forced some food down, then from 11.30 to 2 battled with the storm, now accompanied by thunder and lightning, while the rain got steadily colder as we mounted. By casting about at dubious points we managed to stick to the track, till it disappeared on scree-slopes about 1000 ft. below the pass, which is just under 7000 ft. We were shivering when we reached the snow-line, and if we had realized how much colder we were going to be before we got to the pass, we would have halted here, before it was too late, to put on more clothes. As it was, by the time we dropped over the col into comparative shelter after a nightmare effort at speed to create warmth, or at least lessen the time of exposure to cold, we were almost too numb to untie our sacks, while putting a sweater on and getting a sodden coat back into position was a labour of Hercules. We crossed the lowest gap we could see, and descended 50 ft. of elementary rock with a caution which would have flattered Walker's Gully, Barker having no control of his feet and I none over my hands. This perilous passage past, a bit of glacier had to be crossed to the Copland ridge, which Barker recognized to the N. of us. To my dismay a large schrund loomed up between. I was in no fit state to tackle work with fogged glasses and paralysed limbs; but the fates relented, or failed to push their advantage home: a stout bridge was found to

withstand our uncontrollable tremors, once over which our troubles were at an end. We now had a simple well-worn ridge to lead to our haven the Hooker hut, and were finally relieved of the vision of benightment, or a ghastly struggle back to the Douglas Rock with the likelihood of being imprisoned there for a week with only one day's food left. For hours past a verse of a poem culled from a child's primer in Wasdale had been haunting my tired brain; it runs:

> Benighted once, where Alpine storms
> Have buried hosts of martial forms,
> Trembling with fear, benumbed with cold,
> While swift the avalanches rolled,
> Shouted our guide with quivering breath,
> 'The path is lost, to move is death,'

and I had speculated in a dull sort of way, whether our forms, martial or otherwise, were going to be added to the number. In point of fact, this storm lasted a week, and at the end of it new snow was avalanching off Wakefield, a small hill opposite the hotel, almost to the floor of the valley: had we failed to get over on the 17th, we would have had to return to Waiho, if we could, and go right round by Christchurch and Timaru, a journey of hundreds of miles.

I have dwelt at considerable length on an expedition which in fine weather is almost a walk for several reasons: firstly, as a sidelight on the western approaches to Sefton; secondly, to illustrate the progress this pass has made in thirty years towards becoming what Fitzgerald, the first man actually to cross it, expected it to be, namely, a feasible horse-track for the three summer months; and lastly, because it has left an indelible impression on my mind, and only just failed to do the same on my fingers. On no other expedition in twenty years of climbing have I been so near that mood in which exhaustion breeds indifference and indifference begets accident. In a word, if small things may be compared with great, my feelings towards the Copland are precisely those of Zurbriggen towards Sefton.

Notes on the Illustrations.

(1) Mt. Cook (12,349 ft.). Taken from slopes near the Hermitage. On the right is the Mt. Cook range, which divides the Hooker valley from the Tasman valley. The Hooker glacier, with its vast load of moraine, is in the centre with the Hooker river issuing from it. On the left are the spurs leading up to the

main divide. At the head of the spur on the left is the Sefton bivouac. The Hooker hut and the route to the Copland Pass are just beyond the furthest visible spur. Right across the picture runs an old lateral moraine of the Müller glacier. In the foreground is the Mt. Cook lily (*Ranunculus Lyallii*).

(2) *Celmisia spectabilis* (?). Celmisia is a genus almost confined to N.Z., where there are more than fifty species of it.

(3) On the right is Mt. Darwin (9715 ft.). Far up the glacier part of Hochstetter Dome is seen. On the left is the De La Beche spur, with the ice of the Rudolf below it at its junction with the Tasman.

(4) Taken from the Haast ridge above Glacier Dome. It shows the South Peak of Mt. Haidinger (10,178 ft.), and the S. ridge, by which the first ascent was made in 1895. Far away on the right the Minarets can be seen.

(5) A is the ice-cap of Mt. Cook. The Linda glacier comes down between it and B=Dampier, C=Tasman, D=Lendenfeldt, E=Haast, F=Haidinger, G=Douglas Peak, H=Glacier Peak, J=Conway. ..... shows route of our first attempt on Peak. -.-.-.-.- shows route of second attempt on Douglas Peak and ascent of Haidinger.

(6) Final slopes of Haidinger on left. In centre beyond is N. face of Mt. Cook. Its right-hand ridge runs down to Green's Saddle. Next come Dampier and the Silberhorn. The rock-ridge below the skyline is part of the Haast ridge.

(7) The Huddleston Glacier taken from near the Sealy Lake after an eight-day storm which left three feet of new snow at 6000 ft. X shows approximate site of the Sefton bivouac, and the dotted line is the route to Tuckett's Col. The ridge is that between Sefton and the Footstool, and has not yet been traversed.

(8) The party who made the 25th ascent of Mt. Cook on February 6, 1924.

(9) In the foreground is the Hooker river, with the lateral moraine of the Müller glacier behind (the reverse side to that seen in No. 1). Above is the Huddleston glacier, and rib leading to Tuckett's Col. To the left of the Col is the N.E. ridge of Sefton masked in snow. The rocks, which appear to be on this ridge, are really on the precipice facing the Copland valley, and not on Fitzgerald's ridge, whose angle is far more gentle.

(10) Taken from Mt. Conway. In the centre are the two ice-falls and the upper névé of the Rudolf glacier. The route to Graham's Saddle is by rocks and snow to the immediate right of the right-hand of the two ice-falls. X marks the saddle. The rocky peak to the right of the saddle is De La Beche (10,058 ft.), with the Minarets behind and the Elie de Beaumont group beyond to the left. A small sunlit portion of the Franz Josef glacier is seen on the left on the far side of the rock ridge.

(11) and (12) Vampire and Bannie taken from Montgomery at the head of the Müller glacier. On the left are the snow-slopes leading to Mt. Burns. In the centre is the nameless glacier, by which Bannie is climbed. On the right is the Müller glacier, bounded beyond by the Sealy range. In far distance is the Malte Brun range.

(13) Mt. Hamilton (9915 ft.) and Malte Brun (10,421 ft.) from De La Beche. On the left is the Darwin glacier, which continues out of sight bounding the N. face of Malte Brun up to the Col (marked with X) at head of Malte Brun glacier. The N.W. ridge of Malte Brun is the right-hand skyline ridge.

(14) Taken from lower slopes of La Perouse. On the extreme left is the wall of St. David's Dome, next Dampier, Green's Saddle and Mt. Cook. The couloir between these two is that used on first ascent in 1894. *Cf.* No. 6 and 'A.J.' xxix. 12, 13.

The Dolomites in 1925.

By L. G. SHADBOLT.

(Read before the Alpine Club, March 2, 1926.)

AFTER several seasons climbing among the greater ranges of the Alps, it was with a sense of departing from established tradition that we decided to go to the Dolomites last year. We were prepared to find these rock peaks fairly easy of access, but not for the perfect network of good roads, which make it possible to get to any part of the district in a few hours by car, and in many cases to drive to within an hour of the actual climbing.

These mountains rise abruptly from easy ground, and there is no gradual approach through country becoming more remote and more difficult, nor is there any great mountain barrier, necessitating a long or arduous journey from one side to the other. Most of the peaks, too, have an easy side, and the development of the really unique rock climbing has been on lines similar to the development in Great Britain, though on a very much larger scale, and has been concerned with inventing complicated and difficult routes up the steeper faces. Hence it is to some extent artificial, and it is a little difficult at times to capture the true spirit of adventure and high endeavour, especially when one mentally visualises the cow or other domestic animal, which may be waiting to greet one at the summit.