

Mount Cook from the Summit of the Tasman

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THE

ALPINE JOURNAL.

MAY 1896.

(No. 132.)

Three Ascents in New Zealand.

By E. A. FITZ GERALD.

(Read before the Alpine Club, March 3, 1896.)

AS I am about to read to-night an account of the ascent of three peaks, I shall be obliged to plunge *in medias res* as soon as possible, for, should I spend too much time on my preamble, I should be unable to get you up to the summit of the three mountains, as I hope to do in the course of the next three-quarters of an hour. I shall not describe to-night the many failures that we had, partly owing to bad weather and partly owing to our ignorance of the country.

I will at once begin by stating that we were at what we called the Hochstetter bivouac, in a tent some 7,000 ft. above the sea level. The party with me consisted of Mattias Zurbriggen and a young fellow named Clark, 19 years old, whom I had engaged to act as porter, and who was very keen to accompany us on our ascents. It was not the first time that we had slept here in our attempts to ascend Mount Tasman, the second highest of the New Zealand Alps. On our previous attempt we had been driven back from a few feet under the summit of the Silberhorn by a howling gale.

It was early on the morning of February 5 that Zurbriggen woke us up, saying that it was already past midnight, and that we had better prepare at once for our departure. The weather was fine and the wind blowing gently from the S.W. —a favourable quarter in these latitudes.

We placed the few articles we required in one of the rück-sacs, thinking that having only one pack to carry we could take it by turns, and in this way two at least of us would always be free to move quickly, and, if necessary, help the

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third. We knew by bitter experience the value of time, owing to the uncertainty of the climate, for on previous occasions had we been a couple of hours earlier we should, no doubt, have succeeded. It was not till 2.30 that we set out. There was no moon, and at first we had to scramble over some very rough rocks, which we found unpleasant by the dim and uncertain light of our lanterns. We climbed slowly up the Hochstetter ridge till we reached a little snow-capped mound, called the Glacier Dome, at its head, and here we stood upon the brink of a great plateau. Mount Tasman rose up some 4,000 ft. above us, and on the right lay Mounts Lendenfeldt and Haast, and to our left Mount Cook, only two of its three peaks being visible from here. We cut across this snow basin, making straight for the actual peak of Mount Tasman. When we reached the foot of the mountain we turned to the left and made our way through some great crevasses, in order to gain a small group of rocks situated at the base of the south arête. The whole ascent of this mountain lies across ice and snow, and these few little rocks are isolated in the wide expanse of névé. No actual difficulty presented itself to prevent our getting through this ice-fall, but it required care, more especially as there was not yet sufficient light to see clearly, though we had extinguished our lanterns, finding them useless in the dim twilight. Up to now we had pressed forward as fast as possible, so as to regain some of the time we had wasted before our departure. We reached these small rocks at 5.40, and made a short halt to adjust our crampons, while Zurbriggen screwed some long nails into Clark's boots. From this point a steep and sharp ice arête rises, with few interruptions, to the very summit of the Silberhorn.

The sun had just risen far out beyond the hills of Canterbury, lighting up with its first glow the crest of Mount Cook, which towered above us in the form of a sharp snow-cap. Little by little the summit of Tasman shone forth in the morning light, the dazzling white purity of its snow marking it pre-eminently in contrast with the surrounding peaks, while all about its sides hung huge glaciers broken into wild fantastic shapes by reason of the steep angle at which they were suspended.

About 6 o'clock we started to scale the snow arête towards the Silberhorn. As the ridge was not very steep just here, Zurbriggen found it more expedient to keep to the crest. Our crampons were sufficient to hold us up without the aid of step-cutting, and we progressed rapidly. Clark, however,

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A SKETCH MAP

to illustrate

THE FIRST CROSSING OF

THE SOUTHERN ALPS OF NEW ZEALAND

by E. A. FITZ GERALD

Scale of English Miles.

0 1 2 3 4 5 6 7 8 9 10

N.

SOUTH PACIFIC OCEAN

Waiho River

Waikukupa R.

Fox River

Sutter's House

GILLESPIE'S BEACH (Township)

Ferry

Cook River

Salt Water Creek

Scott's House

Karangarua R.

Copland River

Architect Creek

Twain River

Franz Josef Glacier

Mt Elie de Beaumont 10,200

Mt Green 9,305

The Minarets 10,058

Mt De la Bêche 9,816

Graham's Saddle

Eyre Glacier

Rudolf Glacier

Tasman Glacier

Blumenthal Gl.

Melchior Gl.

Agassiz Glacier

Fritz Glacier

Blackburne's Saddle

Mt Gaskell

Victoria Glacier

Chancellor Ridge

Fox Glacier

Glacier Peak 10,197

Mt Hardinge 10,054

Mt Tasman 11,475

Mt Silberhorn

Balfour Glacier

La Perouse Glacier

Empress Gl.

Mt Cook 12,349

Ball Glacier

Ball Hut 3,402

Ball Pass

Baker's Saddle

Hooker Glacier

Strauchan Glacier

Merchant Gl.

Fitz Gerald's Pass

Lyttle's Peak 7,385

Ruera R.

Douglas River

Hopkins Flats

Mt Sefton 10,359

Hooker River

The Hermitage 2,500

Tasman R.

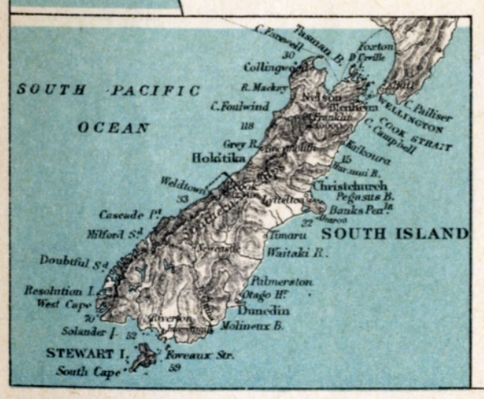
Tasman River

Mt Sealy 8,031

Murchison River

Mt Fitz Gerald's routes shown thus ———

Heights in feet above the Sea.



Stanford's Geographical Establishment.

had some difficulty in keeping pace with us, as the nails in his boots were far from equal to our crampons, while the leather was so bad that he could not for one moment depend upon its not splitting. He got on very well, though, taking into consideration how handicapped he was; while Zurbriggen and I, thanks to our crampons, were so solidly placed that we were able more or less to draw him up behind us when he slipped.

We soon reached a spot where we were obliged to turn some big crevasses that intersect the arête. We found some difficulty here, but after a little time and patience we succeeded in threading our way through these, and at last started on the final arête up the Silberhorn. It was excessively steep here and we had to cut steps. Zurbriggen went first and cut small notches, which I enlarged as I followed, having in view the possibilities of bad weather on the descent, for if the wind should rise to a gale we should be very dependent on these for firm footholds.

We were now on the western side of the arête, with the Linda Glacier directly below us. We progressed slowly towards the summit, which appeared close to us from here, but, as the snow was hard, our ascent was necessarily prolonged.

At 10.30 we reached the top of the Silberhorn. The weather, which had been fine until now, commenced to assume a more threatening aspect, and filmy clouds were hurrying towards us from the N.W., from which quarter our bad weather usually came, and the wind was rapidly increasing to a gale; in fact, it looked so threatening that we seriously debated as to whether it would not be more prudent to turn back. After a short consultation, however, we decided to continue. From here Mount Tasman rises up about a thousand feet, a sharp ice arête leading to it. We started at once and soon got to where this ridge starts from the Silberhorn. We had some trouble in getting on to it, as it was cut away close to the bergschrund.

Zurbriggen was delayed some 20 min. by this obstacle, as he had to cut very deep steps, more especially as the wind now commenced to blow with great force. We had put Clark in the middle, so that in case he should slip we could hold him between us. Zurbriggen was working in magnificent style, and rapidly cut his way up the final arête. We were now completely enveloped in mist, so dense that at times I could scarcely see him, and I was excessively surprised when suddenly I heard him call out that he was on the summit.

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In a few seconds I stood beside him on the peak of Tasman. It is in the shape of a small plateau some ten yards square, where one could have pitched a couple of good tents if one had wished to. I was surprised at this, for from the nature of the mountain we had expected a conical point of ice. The weather was so bad that we were obliged to turn at once and descend as quickly as possible. I came first, Clark followed, and Zurbriggen brought up the rear as anchor to the party. I soon found it was necessary to hollow out the steps which Zurbriggen had cut, as they were filled with fresh snow, which was rapidly drifting into them. We succeeded in reaching the Silberhorn without accident, the arête until now having been sheltered from the wind to some extent.

We saw that the rest of our way would be far more exposed, and the weather was getting worse and worse. We commenced the final descent at once, and proceeded without incident till we reached the first crevasse which intersects the arête. Here it was necessary to cross over to the eastern side, where we had come up that morning, and had cut steps round this corner. I crossed over, and, made Clark follow as close to me as possible, for there was a crevasse to pass, and I wished to keep the rope free, as I intended to jump. I advanced one step, therefore, on the solid ice, and, as the small bridge which spanned the crevasse seemed very frail, though we had passed it without accident in the morning, I prepared to jump across rather than trust myself to it. All went well up to the moment I jumped, when Clark unfortunately twitched the rope, landing me in the centre of this bridge, and the next moment I heard an ominous crack. It held for a second, but I knew that it must give. I had barely time to shout to warn Zurbriggen, who was on the corner of the arête, when it gave way beneath me with a tremendous crash. I fell about 10 ft., and the rope tightened around me; some large blocks of ice fell with me, and as I was suddenly jerked up by the rope they struck me on the head and shoulders, and I thought I should be suffocated by the strain of the rope round my chest. I managed, however, to keep hold of the ice axe, and after a few moments regained my senses and felt that the rope was being held tightly from above. I at once wedged my back against one side of the ice, and pushed with my feet against the opposite wall of the crevasse to steady myself. I then cut two notches, one on each side, so that I could stand in them, thus easing the strain on the rope; and, as the crevasse was narrow, I contrived to work my way up a little higher to where there was a ledge. Here I untied

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myself, for I knew that Zurbriggen and Clark were too badly situated to help me out. Moreover, as I had broken down the side walls of the crevasse, I knew they must make a détour themselves to get round. I extricated myself without serious difficulty, and they soon joined me. The weather had now grown decidedly worse, and the rest of the descent had to be accomplished in the teeth of a howling gale. We recrossed the snow plateau and reached our tent at about six in the evening. The storm had moderated, and the sun shone through the clouds at moments.

We turned in at once, being greatly fatigued, and thus ended our ascent of the Silberhorn and Mount Tasman.

The next day I sent Zurbriggen and Clark down to the Ball Hut, a small building constructed by the Government, some way up the Tasman valley, for the use of travellers exploring these ranges, with instructions to bring up fresh provisions next morning. I spent the rest of the day in straightening out our effects at the camp and in drying our clothes, which had been soaked through on the previous day's ascent. With night a terrible thunderstorm came on, and raged with such fury that I feared the whole tent would be blown away. I was obliged to go out in the middle of the night and secure it with an extra rope. As the storm gradually passed away a great fall of rocks occurred in the couloir near which the tent was situated, but, thanks to the overhanging rock under which we had pitched our camp, none of these stones struck it.

In the evening of the following day Zurbriggen and Clark turned up with fresh provisions. The weather was now fine again, though very cold. We turned in early, intending to make an attack upon Mount Haidinger next day. Towards midnight we again began making preparations for the start. We took with us rather more equipment than usual, as we foresaw the possibility of being obliged to spend the night between Haast and Haidinger. About 2.15 we started, following the same route as before, up to Glacier Dome. This we reached about 3.20. We then turned to the right, and skirted along the edge of the plateau, looking for a good couloir to take us up to the arête leading to Haast. We tried one, but were unsuccessful in gaining the ridge, so were obliged to retrace our steps to Glacier Dome, and thence to follow the arête from the beginning. This ruffled Zurbriggen very much indeed, and he muttered all along as we were turning back that never again would he try a short cut. This ridge leading to Haast we found in a very bad

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condition, the rocks all crumbling away as we touched them.

At daybreak we made a short halt for breakfast. From here we continued on towards the peak of Haast till we got within about 1,000 ft. of the summit. Zurbriggen now branched off to the right, and we traversed the face of the mountain as quickly as we could, for the sun had already risen, and small avalanches of snow were commencing to fall down the sides. We finally reached a point near the edge of the snow whence we could see the arête that leads from the head of the Freshfield Glacier to the summit of Haidinger. Our mountain looked very far off, and we scarcely hoped that we should be able to reach it in time to return that day, but, as the weather was all that could be desired, we determined to push on. We were now obliged to cross a slope of snow that was constantly swept by avalanches. Zurbriggen led, cutting a few steps now and again, but for the most part trusting himself to the soft snow, while I followed behind and Clark brought up the rear. Clark, being unused to this sort of work, slipped and fell and dragged on the rope continually. This was rather alarming, for I feared lest he should drag me down too, as we had no steps to hold on to. But Zurbriggen was so absorbed in watching the dangers from above that he did not notice these misadventures behind, but hurried on fast. A large stone whizzed past us only a few paces in front of me. From time to time he would have to stop and cut a few steps across a patch of clear ice that had been laid bare by some unusually large boulder sweeping over it. At last, after about twenty-five minutes, we reached the snow slope under the col between Haast and Haidinger, and sat down in comparative safety to recover from the rapid action that had just taken place. We left our rücksac here, taking with us only the few provisions we thought absolutely necessary for the ascent.

A great bergschrund here blocks the way, and over this we had to pass. Zurbriggen plunged his ice axe into the wall horizontally, and then took Clark's and fixed it in a similar position higher up; then, holding the ends of these two axes, he intimated that I should find this an excellent ladder. I crawled up on to one of them, and steadied myself by leaning on Zurbriggen; then very carefully I managed to get on to the top one, and with the little help that I got by putting my foot upon Zurbriggen's head, to steady myself, I planted my own axe firmly into the soft snow above me. I now heard several remarks below as to how long I should be in

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getting up. These were followed by some hasty words in *patois* that I did not fully comprehend, and then for the first time I perceived that Zurbriggen was not happy. The idea flashed across my mind that it must be my crampons on his head, and at the same time I remembered that he had carefully sharpened them a few days previously at the Hermitage. I managed at once to draw myself up on to the slope above me, while Zurbriggen, as soon as my boot was removed from his head, shoved me up from below with his ice axe. I cut a few steps, and going up 2 or 3 ft. made myself a platform on the snow, and then hauled up young Clark. We next embedded our two ice axes deeply in the snow, and attaching the rope to them succeeded in helping Zurbriggen up. He muttered something to the effect that the next time he climbed with me he was going to have an iron helmet.

From here we soon gained the arête that leads direct to Haidinger. This was really the first opportunity we had had of seeing the country that lay out towards the sea, the country of Westland, as it is called. After the dull brown tracts of snow grass of the Mackenzie country and the rugged rocks and glaciers of the Alps of Canterbury, the bright green of the West Coast valleys and the fertile plains beyond were indeed a refreshing sight. Beyond lay the sea, covered with small cumulus clouds, gleaming in the sunlight like some vast desert of sand as far as the horizon. Beneath our feet lay the great névé of the Fox Glacier, which flows down almost to the very coast, while to our right Haidinger rose up majestically, with great ice precipices on every side and a long ice arête leading up to the summit, broken here and there with rocks.

We found this arête easier to progress along than we had expected, and at 10.30 we stood upon the summit of the peak. The day was perfect and the view superb, and I secured excellent photographs of the surrounding ridges. We spent over 2 hrs. upon this peak, and it was not until about 1 o'clock that we commenced our descent.

We reached Glacier Dome that evening a little after 6 o'clock, but I have not time to-night to describe the incidents that occurred in our descent, as I wish to pass on to the account of our ascent of Mount Sefton, by far the most difficult and important climb that we had in this country. I will not enumerate our several failures in this undertaking, but merely state that when we left the Hermitage, upon February 13, for the bivouac from which we proposed to attack Mount Sefton it was our seventh attempt

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to scale this mountain, for upon six previous occasions we had been driven back by bad weather.

An overhanging rock near the Footstool constituted the bivouac where we had usually spent the night, and we reached this shelter at about 6.30 in the evening. The night was fine, and we felt confident that the time must at last have come when we should be able to force our way to the summit, and that after six weeks of hopeless weather our perseverance must meet with its reward. The coming day offered a grim prospect. It was after broken sleep and a nightmare vision of again and again scaling and slipping down the ghastly crags that I awoke about midnight to prepare for the start. We spoke little, awed by the stillness and the weird moonlight, and the sense of all that lay before us. Our blood was chilled, and as we drew on our cold boots (there is nothing equal to drawing on cold boots to check your ardour and give a general sense of helplessness down to the tips of your numb fingers) I am sure that Zurbriggen felt the intense excitement of the hour not less than I did myself. We made some tea at 12.45, put on our crampons, and roped ourselves, for the crevasses commence immediately on leaving the bivouac.

When we started the moon had been up about an hour, and Sefton loomed over us in a wild array of pinnacle and precipice like some fantastic Gothic vision with glittering icefalls suspended at unnatural angles in the bright moonlight. Now and again the stillness of the night was broken by a sharp rattle of stones from the summit, clear and piercing as the reports of musketry, dislodging solid masses of ice and snow on their downward path with a rattle as of thunder peals, and next with a fearful crash they would lose themselves in the Mueller Glacier, 8,000 ft. below, while the crags around re-echoed to the roar like the vaults of some vast cathedral. Our way lay up towards the face of the Footstool, and we had to mount a steep ice slope, while at every step we heard our ice axes and crampons ring on the crisp ice. A dark shadow was thrown from the Footstool, in front of us, across the sheer face of Sefton till the grim peak seemed to frown with sinister meaning on us who dared thus to break the eternal silence of its primeval solitude.

All this time our nerves were kept strung to the highest pitch by the ceaseless vigilance that we had to exercise, from the fact that there were only two of us on the rope and that the glacier was in a frightful condition, owing to the lateness of the season, corresponding to the September of the Northern

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Hemisphere. The weird shadows cast by the dim light of the moon seemed to enhance the horror of the tottering séracs and perilous crevasses among which we threaded our hazardous way. Upon reaching the rocks at the base of the Footstool we turned to the left, and, crossing the Huddleston Glacier, plunged into the great icefall that comes down from Tuckett's Col. At first we had to thread our way through a pile of débris from former ice avalanches, glancing anxiously up the while in the half-expectancy that some of the pinnacles that seemed almost to totter overhead might fall and overwhelm us. Zurbriggen here displayed an unerring knowledge of ice-craft and glacier work, that enabled him to thread his way in the uncertain light of the moon through what appeared, at first sight, to be an inextricable maze of crevasses. The greatest caution was required in crossing the frail ice bridges that spanned crevasses gaping beneath our feet into measureless depths, to judge from the echoes of the icicles that fell as we passed.

Finding that we could not force our way up from the glacier, on account of the great crevasses that cut us off completely, we were obliged to take to the rocks on the left. We had some difficulty in mounting these rocks, as the glacier fell away from them, and great chasms had to be crossed upon seemingly fragile ice bridges. Once on these rocks we thought ourselves better off, but had not progressed more than a few feet before we found that they were in such a crumbling condition that even the glacier, with its great séracs and blocks of ice, would almost have been preferable. The slightest touch would at times dislodge masses of loose stone, and we had to use the utmost precaution to avoid undermining the rocks overhead by starting such small avalanches. We continued on this arête as far as a short slope of ice situated between the last rocks of the Huddleston Glacier and Tuckett's Col. Here we stopped to put on the crampons, which we had taken off while mounting the rock arête, and, thanks to their assistance, we succeeded in reaching the top of this, the last snow arête, just as the dawn was breaking. Without these excellent adjuncts we should in all probability have spent several hours in cutting steps, and should undoubtedly have been compelled to pass the night out on the mountain in our descent, for, as it was, we only just got clear as evening closed in upon us.

By 6.30 we stood upon the saddle between Sefton and the Footstool, which we had named Tuckett's Saddle. Day was breaking, and a cold wind had sprung up from the S.W.

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We looked straight down some 5,000 ft. into the wooded valley of Copland, leading into the Karangarua, and out beyond to the Pacific Ocean, still veiled by filmy vapours. Behind us, across the Hooker Valley, rose the three giant peaks of Mount Cook, still shrouded in morning mists, with the exception of the topmost ice-cap, which was already suffused by the glow of sunrise; while far off to our left lay the barren plains of the Mackenzie country, which presented a strange contrast to the green, fertile valleys of the West Coast, with their semi-tropical vegetation.

From this point the great mass of Sefton towered above us at what seemed to us at that time almost hopelessly steep angles. The precipice that leads down from here to the Copland is by far steeper than any I have ever seen in Switzerland, and, indeed, appears almost perpendicular. We paused for a few moments to rest, as we had scarcely stopped since we left the bivouac. We left our rücksac, and in fact everything that we could dispense with, so that for our final struggle we might be in the lightest marching order. Zurbriggen insisted upon my carrying in my pouch a bottle of claret he had brought from the Hermitage, 'for,' he assured me, 'when I have the peak in my pocket we shall wish to drink to its health, and at the same time I will smoke half a cigar in honour of the occasion.' These were the first words that we had uttered since leaving the bivouac, for our moonlight journey across the glaciers had not been conducive to genial conversation. He pointed out to me, moreover, that an empty bottle would be necessary to put our cards in when we reached the summit, for without this it would really be no ascent at all, nor would it count as recorded in the annals of the Alpine Club. We slightly lengthened the rope between us, and Zurbriggen started, first traversing a bit of rock arête that leads to the face of the great cliff we intended scaling. This ridge was as rotten as it could well be, and the stones literally crumbled away beneath our feet at each step. Crawling along the very crest, we soon discovered that it was so thin as to form a veritable 'knife-edge,' while it actually seemed to incline over towards the Copland side. I could feel the whole mass tremble under each of Zurbriggen's steps, and it was an intense relief to us both when at last we exchanged what seemed uncommonly like an experiment in tight-rope walking for apparently more solid foothold. I use the term 'solid' comparatively, for I have no doubt that reasonable objections may be raised as to the actual solidity of any part of this mountain. Here the

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nature of the rock changed, and instead of merely crumbling stones we were confronted by large boulders, which at first appeared to be solidly embedded in the mountain-side, but, as we soon found, were in reality so delicately poised as frequently to give way when touched. Soon we were climbing cautiously up an almost vertical face of loose rock, to which we clung like flies, testing each stone carefully with our hands before trusting our weight to it.

Zurbriggen had the more responsible task, for unavoidably my position was vertically below him at every step, and even a small stone falling from under his feet would have seriously injured me. How he managed this perilous task will always be a wonder to me, and a finer display of mountain craft and rock-climbing than he exhibited on this occasion is scarcely conceivable.

After about an hour of this arduous work on the Copland side of the mountain we at last came to a place where the side of the arête facing the Hermitage proved to be slightly less steep; crossing over to this, we were able to make somewhat more rapid progress.

Directly in front of us now rose what we had always supposed, when looking at it from the Hermitage, to be the worst bit; from our present position it seemed, if possible, even more appalling. The actual rock, indeed, was better in some respects, and rather less crumbly than what we had just traversed, but, on the other hand, there were many huge blocks of stone which would give way if the slightest weight came upon them. We kept, as far as possible, to those rocks that seemed most coated with ice, in the hope that they would be bound together by the frost, and thus afford a more secure foothold, though by so doing the difficulties of climbing were doubled.

After advancing in this way a few steps we found ourselves again forced to return to the crest of the arête, along which we proceeded between two precipices, descending to the Copland and to the Mueller valleys—some 6,000 ft. sheer drop on either hand.

We had next to climb about 300 ft. of almost perpendicular cliff. The rocks were peculiarly insecure, and we were obliged to move by turns, wherever possible throwing down such rocks as seemed most dangerous. At times even this resource was denied us, so dangerous was the violent concussion with which these falling masses would shake the ridge to which we clung. I carried both the ice axes, so as to leave Zurbriggen both hands free to test each rock as he slowly worked

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his way upwards, while I did my utmost to avoid being in a position vertically beneath him.

Suddenly, as I was coming up a steep bit, while Zurbriggen waited for me a few steps above, a large boulder, which I touched with my right hand, gave way with a crash and fell, striking my chest. I had been just on the point of passing up the two ice axes to Zurbriggen, that he might place them in a cleft of rock a little higher up, and thus leave me both hands free for my climb. He was in the act of stooping and stretching out his arms to take them from my uplifted left hand, and the slack rope between us lay coiled at his feet. The falling boulder hurled me down head foremost, and I fell about 8 ft., turning a complete somersault in the air. Suddenly I felt the rope jerk, and I struck against the side of the mountain with great force. I feared I should be stunned and drop the two ice axes, and I knew that on these our lives depended. Without them we should never have succeeded in getting down the glacier, through all the intricate ice-fall.

After the rope had jerked me up I felt it again slip and give way, and I came down slowly for a couple of yards. I took this to mean that Zurbriggen was being wrenched from his foothold, and I was just contemplating how I should feel dashing down the 6,000 ft. below, and wondering vaguely how many times I should strike the rocks on the way. I saw the block that I had dislodged going down in huge bounds; it struck the side three or four times, and then, taking an enormous plunge of about 2,000 ft., embedded itself in the glacier now called the Tuckett Glacier.

I felt the rope stop and pull me up short. I called out to Zurbriggen and asked him if he was solidly placed. I was now swinging in the air like a pendulum, with my back to the mountain, scarcely touching the rock face. It would have required a great effort to turn round and grasp the rock, and I was afraid the strain which would thus necessarily be placed on the rope might dislodge Zurbriggen. His first fear was that I had been half killed, for he saw the rock fall almost on top of me; but, as a matter of fact, after striking my chest it had glanced off to the right and passed under my right arm; it had started from a point so very near to me that it had not time to gain sufficient impetus to strike me with great force. Zurbriggen's first words were, 'Are you very much hurt?' I answered, 'No,' and again I asked him whether he was firmly placed. 'No,' he replied; 'I am very badly situated here. Turn round as soon as you

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can; I cannot hold you much longer.' I gave a kick at the rocks with one foot, and with a great effort managed to swing myself round.

Luckily there was a ledge near me, and so, getting some handhold, I was soon able to ease the strain on the rope. A few moments later I struggled a little way up, and at last handed to Zurbriggen the ice axes, which I had managed to keep hold of throughout my fall. In fact, my thoughts had been centred on them during the whole of the time. We were in too bad a place to stop to speak to one another; but Zurbriggen, climbing up a bit further, got himself into a firm position, and I scrambled up after him, so that in about 10 min. we had passed this steep bit.

We now sat for a moment to recover ourselves, for our nerves had been badly shaken by what had so nearly proved a fatal accident. At the time everything happened so rapidly that we had not thought much of it, more especially as we knew that we needed to keep our nerve and take immediate action; but once it was all over we both felt the effects, and sat for about half an hour before we could even move again. I learned that Zurbriggen, the moment I fell, had snatched up the coil of rope which lay at his feet, and had luckily succeeded in getting hold of the right end first, so that he was soon able to bring me nearly to rest; but the pull upon him was so great, and he was so badly placed, that he had to let the rope slip through his fingers, removing all the skin, in order to ease the strain while he braced himself in a better position, from which he was able finally to stop me. He told me that had I not been able to turn and grasp the rocks he must inevitably have been dragged from his foothold, as the ledge upon which he stood was literally crumbling away beneath his feet. We discovered that two strands of the rope had been cut through by the falling rock, so that I had been suspended in mid-air by one single strand. The rope, however, was an excellent one, made by Buckingham, and held through this severe test.

I was considerably hurt by the stone, for it made a cut in my side, which bled a good deal and did not heal for a couple of weeks. We determined nevertheless to finish the ascent. There was yet another bad place a few steps further on, but this we succeeded in scaling without serious difficulty.

When we got to the top of this we saw that it would be possible to cross the face and get on to some rocks on the Copland side that led straight to the summit. The face here was snow, and we had to cross diagonally to get to the rock.

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We found this slope in very bad condition, besides which it was raked with falling stones. On reaching the point where we intended to take to the rocks again we had some difficulty in reaching them. They were quite smooth and went up perpendicularly for some distance. I got on to Zurbriggen's shoulders (he suggested, by the way, that he should get on mine, but I preferred the other method), then taking the ice axe he shoved me up as high as he could, and here after a good deal of stretching and wriggling I contrived to get hand-hold and draw myself up to the ledge. Here I made myself firm, and putting the rope round a projecting rock Zurbriggen climbed up by it. We gained the arête from here in about 20 min. The last bit before reaching the peak is comparatively flat, and I walked along it without any difficulty. On the one side we looked down to the Hermitage, and on the other straight into the Copland. As I learned afterwards, we were plainly visible against the sky-line to those who were looking at us through a telescope from the Hermitage. At 10.25 we stood upon the actual summit, which is in the form of an ice cone. Here I planted my ice axe. They say that they saw this from below. I tied to it a red rag which we had brought with us for the purpose—a bit of the inside of an old macintosh lined with red. We then went down a little way on the Copland side, to escape the cutting wind, and drank our bottle of claret, while Zurbriggen smoked his accustomed half-cigar.

At 11.40 we commenced the descent. I came first and Zurbriggen brought up the rear. We proceeded without incident to the place where the first dip commences. Here we drove one of the iron staples firmly into the rock; then taking the thin rope and tying it round myself, I came down the whole length of it, about 150 feet. I then untied myself and got out of the probable line of descent of such stones as Zurbriggen might dislodge when he came. He passed the rope through the ring, and came down holding it double in his hand. When he came to the end of it he let go one end of the rope and drew it all down after him. We repeated this operation at the steep place where we had had our accident coming up. This time we got down quite safely, and at 2.20 we again stood on the col between Sefton and the Footstool. Here we ate a few biscuits, and after I had taken some photographs we put on our crampons and came down the snow arête. We were now in great difficulty, for the snow that covered the ice was quite soft. All the way down I had to cut steps through this soft snow well into the hard ice underneath.

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Our crampons were of very little use, for snowballs formed in them, which we had to cut out with the points of our ice axes. By 5 o'clock we at last reached the rocks, down which we hastened, as there was very little light left, and crossed them without incident as far as the glacier; the sun had heated the snow during the day, and it was extremely soft, so that the ice bridges we had come over safely in the morning now proved a serious danger and obstacle. We had to make innumerable détours among the séracs.

We were at last able to get out of this labyrinth and into a clear part of the glacier, which was comparatively safe but for the danger of hidden crevasses in such soft snow. One very large crevasse ran almost the whole length of the glacier, crossed apparently by one ice bridge only. In the morning we had come over it safely, but now that everything had been melting and dripping fast all day it looked rather unstable. We had to approach it down a very steep slope of soft snow, and I did not like the look of it at all. Zurbriggen led, as he had done since we had come upon the glacier, and he was just in the act of putting his foot upon the bridge when down it went with a thundering crash, the sound reverberating under our feet till the actual bit we stood on seemed to tremble. Zurbriggen had only just time to leap back and to call to me to draw in the rope. Before he had stepped on to the ice bridge I had planted my axe firmly into the deep snow, but now the sudden idea that the very slope that we were on was about to yield entered both our minds simultaneously, and we turned and hurried back, never once stopping till we had put a safe distance between us and the brink. We were barely clear when, with a loud booming sound, a second piece of ice detached itself and fell headlong into the abyss beneath.

We now walked along the glacier a few steps, so as to get a good view of the small remains of what we had supposed to be the last bridge left across this crevasse. Both lips of the chasm overhung greatly, and there was just a small bit of snow across it which looked ready to give way under the least weight. Zurbriggen was very keen to try this at once, but I refused until I had quite made up my mind that it was absolutely our last resort, and even then I pointed out to him that we should stand a better chance by waiting till the cold night air had frozen the soft snow together, and thus bound the fragile thing into a more compact mass. We walked along the edge of the crevasse for a long distance—in fact, nearly as far as the Tuckett Glacier. The shades of evening were now fast falling, and the prospect of a night on the

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glacier stared us in the face. At some little distance from where we stood there seemed to be another sort of bridge, which Zurbriggen, in his eagerness to get away before night overtook us, wished to try; this time I yielded, trusting to his great knowledge and experience of ice work. I planted myself in a firm position, and, burying my ice axe in the snow, made ready to do my best to hold him up should an accident occur. He crawled as lightly as a cat over the frail ice that joined the two sides of the chasm, when suddenly, to my alarm, I found that the rope between us had come to an end, making it necessary for me to follow him at once, so that he should not be obliged to pause one single instant in the perilous position in which he was now placed. I went quickly after him, and thus we both found ourselves upon this bridge at once. In an instant, however, Zurbriggen had gained the opposite bank, plunged his axe into the snow, and calling out to me to be careful, drew in the rope, assuring me that he could hold me up should the ice give. Luckily I was not obliged to make trial of his strength, and a few minutes later we were hurrying through the last crevasses and séracs of the Huddleston Glacier.

I could already hear the voice of young Clark calling to us from the bivouac, and in about three-quarters of an hour we had joined him and were partaking of some hot tea which he had prepared for us. I decided to go down to the Hermitage that night, but Zurbriggen said he was too tired to move a step further and lay down in the rock bivouac to sleep. I left him ensconced in both sleeping-bags and started down with Clark to find my way to the Hermitage with the help of a lantern. Shortly after midnight I arrived, having been nearly 24 hours on the march.

Mont Herbetet and its Southern Ridge.

By F. W. OLIVER.

(Read before the Alpine Club, April 14, 1896.)

I THINK it must have been in 1893, from the summit of Les Ecrins, that I first cast longing eyes on the mountains of Cogne. Their white peaks and blue recesses, seen through a gauzy veil of mist in the hot August sunshine, formed a picture of rare beauty, and it aroused in me the determination to visit and explore the district at the earliest possible opportunity; and, as this frame of mind endured through the winter, it was with much satisfaction that I

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