

2. NARRATIVE OF THE ACCIDENT ON THE COL DE MIAGE.

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ON the 10th of July, 1861, we set out from Chamounix, with the object of ascending the Col de Miage, to try if there were a passage at the back of the Aiguille de Bionassay by which Mont Blanc could be ascended. Our party consisted of the Rev. Leslie Stephen, Messrs. Tuckett, Frank Mather, John Birkbeck, and myself. For the information of those who read this account, I may mention that John Birkbeck formed one of this party in compliance with his father's distinct wish. To my inquiry as to what mountains he should attempt, the reply was, "Mont Blanc, and other high mountains, if you think him fit for the fatigue." After trying him in several smaller expeditions, I was quite satisfied of his powers as regards strength, good head, and sure foot.

On the afternoon of the 10th of July we set out from Contamines, the second stage of our expedition, and progressed without adventure till our bivouac. On the morning of the 11th, at 3.30, we left the friendly rock on, or near which we had passed the night; and at seven o'clock we had reached the summit of the Col de Miage. Here we sat down on a smooth hard plain of snow, and had our second breakfast. Shortly afterwards Birkbeck had occasion to leave us for a few minutes, though his departure was not remarked at the time. When we discovered his absence, Melchior followed his

footsteps, and I went after him, and, to our dismay, we saw the tracks led to the edge of the ice-slope, and then suddenly stopped. The conclusion was patent at a glance. I was fastening two ropes together, and Melchior had already bound one end round his chest, with a view to approach, or even descend a portion of the slope, for a better view, when some of the party descried Birkbeck a long way below us. He had fallen an immense distance.

It has been asked how the different guides conducted themselves, and which of the travellers went to Birkbeck? I shall consequently mention one or two facts which otherwise might have been passed over in silence. The German guides gave vent to frequent bursts of tears, not only at the moment when we discovered our friend's terrible fall, but from time to time during the day. The two guides from the neighbourhood of St. Gervais gave no outward manifestation of feeling, though their state was sufficiently indicated by their reply to me, when I made some suggestion before leaving the Col, "*Nous sommes des incapables.*" Of the reality of this assertion they gave practical proof during the descent, for they went so slowly that Melchior, Tuckett, and I, who were in the same cord with them, were frequently obliged to stop until they got down some of the more difficult rocks. My first impulse led me to wish that Melchior and I should go down to Birkbeck as fast as possible, and leave the rest to follow with the ropes; but on proposing this plan, some of the party objected, and, accordingly, we continued the descent as before. For a considerable time Birkbeck shouted to us, not knowing whether we could see his position. His course had been arrested at a considerable distance above the bottom of the slope, by what means we know not; and just below him stretched a snow-covered crevasse, across

which he must pass, if he went further. We shouted to him to remain where he was, but no distinguishable sounds reached him; and to our dismay, we presently saw him gradually moving downwards,—then he stopped,—again he moved forwards, and again—he was on the brink of the crevasse; but we could do nothing for him. At length he slid down upon the slope of snow which bridged the abyss. I looked anxiously to see if it would support his weight, and, to my relief, a small black speck continued visible. This removed my immediate cause of apprehension, and after a time he moved clear of this frail support down to the point where we afterwards joined him. Bennen was first in the line; and after we had descended some distance, he untied himself, and went down to Birkbeck. It was 9.30 when he reached him. He told us he was becoming faint, and suffering from cold. On hearing this, Melchior and I determined to delay no longer; and, accordingly, unroped, and trotted down to the point where we could descend from the rocks to the slope upon which he was lying. Arrived at the place, I sat on the snow, and let Birkbeck lean against me, whilst I asked him if he felt any internal injury, or if his ribs pained him. His manner of answering gave me strong grounds for hoping that there was little to fear on that score.

The next thing was to get him down as fast as possible, and the sledge suggested itself as the most feasible plan. Only the day before, at Contamines, I had had the boards made for it, and without them the runners (which, tied together, served me as an alpenstock) would have been useless. Two or three attempts were made before I could get the screws to fit the holes in the boards and runners, and poor Melchior, who was watching me, began to show signs of despair. At length, the operation was completed,

and the sledge was ready. We spread a plaid, coats, and flannel shirts over the boards, then laid Birkbeck at full length on them, and covered him as well as we could; over his face we laid a veil, and above this, at his request, a white handkerchief.

Now came the "tug of war," for the snow was much softened by the sun, the slope was steep, and there were several crevasses ahead; added to this, there was difficulty in getting good hold of the sledge, and, every five or six steps, one or other of the bearers plunged so deeply in the snow that we were obliged to halt. Birkbeck was all the while shivering so much that the sledge was sensibly shaken, and all the covering we could give him was but of little use.

From hints previously given me by a medical friend in London, I was well aware of the great danger Birkbeck was in, owing to the vast amount of skin which was destroyed, and I felt that every quarter of an hour saved was of very great importance; still the frequent delays could not be avoided. If there were only three bearers ready, I made a fourth; if there were four at hand, I relinquished the post, and carried their *haches*, &c.

For a time we staggered along across the slope, fearing to descend, lest we should be involved in the numerous crevasses which lay below us. Once clear of this difficulty, we steered downwards to the point where our friends had gone to wait for us, as we had begged them not to follow us to Birkbeck.

The party was now re-united, and the travellers lent more of their garments, as a covering for Birkbeck. Mr. Tuckett produced some effervescing powders, as soon as we reached water, which were most acceptable to Birkbeck and others.

When the slopes of snow were passed, we sent Mollard

(one of our local guides) forward, to obtain more bearers, and to get a proper stretcher. In half an hour more we had dragged Birkbeck over a long horizontal plain of snow, and shortly afterwards we were clear of the glacier. At this point, Stephen kindly offered to go down to the valley, and cross the Col de Vosa to Chamounix, in search of an English doctor. Tuckett wrote out, and took a telegram for Mr. Downton (English chaplain at Geneva), begging him to come to St. Gervais at once, with the best surgeon he could obtain. He also promised to see the doctor of the baths, and have him in attendance on our arrival in the valley, together with a carriage, to convey Birkbeck from Bionay to St. Gervais.

We next had to attack the moraine, very steep at this point; and Melchior was obliged to go forward, and open steps, to avoid slipping, as we went over it with our burden. A new mode of carrying was adopted, as the former was impracticable on the steep, shifting moraine. Melchior put his shoulders under the front part of the sledge, and, bending down his head, walked forward in this position, whilst one or two others carried behind. Fortunately, the sufferer did not seem to care much whether his head or his heels were the higher. I say fortunately, for it was impossible to keep his head always on a level with, or higher than his body. Many were the halts on this trying moraine; but at last it was behind us, and delighted we were when we soon afterwards reached grass-slopes.

Mather had shortly before this gone forward to the châteaux of Miage to order some water to be heated, and to send forward any men he could meet with. Hoste (one of the guides from this neighbourhood) had gone back for some of the baggage that we had been obliged to leave behind, and thus I and the faithful three —

Melchior, Bennen, and Perren,—were alone with my poor friend. Round my neck hung two wine gourds, left by my provident friend Tuckett, and from time to time I gave some of their contents to the three bearers, as it seemed to keep them in heart and refresh them. Though their exertions were very great I did not allow them long rests, so anxious was I to get Birkbeck to warmth, and bed, and rest. After they had sat two or three minutes on the grass I used to catch Melchior's eye, and show by a sign that we ought to be off again. Melchior always, at once and most cheerfully, responded to this appeal, and when he rose the other two did the same. I preferred thus communicating with Melchior, because we knew one another well, and I was not afraid of his misunderstanding my motives, though I knew their exertions fairly entitled them to longer halts. The footing was now secure and that is all that could be said in favour of this part of the descent, for frequently we came to abrupt slopes of rock, which to an ordinary walker would have appeared difficult, even without anything to carry. We had so secured Birkbeck, with ropes and straps, that he could not slip off the sledge, otherwise he would on these occasions at once have parted company with his stretcher, and rolled down the rocks. The chalets of Miage lie on a perfectly horizontal plain, from which springs that spur of the mountain which we were now descending. Half an hour before we reached this plain Mollard reappeared. He had been down to "La Vilette," nearly as far as Bionay, for a stretcher and a staff of porters. The last quarter of an hour before gaining the plain of Miage was somewhat trying; on most sides we were hemmed in by precipitous rocks, and the best line of march lay down the sides, and sometimes along the bed of a rushing

mountain torrent, where we had to step from rock to rock, and sometimes lower Birkbeck four or five feet at a time.

As we had now a stronger force of bearers we got on with less trouble and fewer halts, merely stopping to give our poor friend a cup of water occasionally. After the plain was reached the chief difficulties were overcome. An hour later we got to the chalets, where Mather had prepared the hot water, and we now made an attempt to place Birkbeck more comfortably. The stretcher was turned upside down (that the legs might help to keep him in his place), a mattress of straw and dry blankets was hastily prepared. Birkbeck was lifted off the sledge and laid on the grass. The sledge was bound with ropes to the stretcher, across which a piece of board was fixed, projecting beyond the foot of the sledge so as to leave at least six feet clear for the mattress which was now placed upon it; two or three blankets were then laid over the mattress, and the sufferer was placed on his new couch. He had been wrapped up in a plaid of Stephen's, and in this I let him remain rather than have to lay bare his terrible wounds for the sake of putting him between the clean sheets which Mollard's wife had thoughtfully prepared.

When the poor fellow was on his new bed, with a pillow under his head, I sent for the hot water and poured some cups of it over his body, thighs and legs, and especially on his feet, which had long been benumbed. We then immediately wrapped the blankets about him, and put some flannel shirts and coats round his feet. To our great satisfaction our patient in a few minutes found himself quite warm, and much more comfortable than he had been since the accident. By the time all was complete it was four o'clock, and we at once gave the word for a fresh start.

We had at least six or seven bearers, and as two only could carry at a time, owing to the narrowness of the mountain path, there was no more delay than the mere changing of hands. When the cavalcade was fairly off, Mather and I had some bread and milk, which were most acceptable after our long exertions in the sun. In ten minutes we were again with our friend, and did not leave him for more than a few minutes till we reached the main valley at Bionay.

Notwithstanding all Melchior had done he said to me (half an hour below the chalets), 'I'll carry one end of the stretcher and then we'll walk faster.' At 6 P.M. we reached Bionay, and two minutes after we had stepped into the road, appeared the trusty Tuckett with the doctor from the baths, in a carriage with a mattress all properly prepared. We were glad to hear Tuckett express great surprise that we had got down so soon, since it was a proof that the bearers had done well. Birkbeck was quickly moved to the carriage, and there deposited on the mattress; the doctor and Mather occupied the two remaining seats inside. I mounted the box, and away we went to St. Gervais, which we reached at 6.30 P.M. Having selected the most airy room, we carried our friend up to bed, cut off his clothes, and the doctor made a thorough examination. He confirmed our previous hope with regard to the injuries being confined to the skin and the shock to the system. This report decided me in my previous intention of sending a letter instead of a telegram to Birkbeck's father, as an announcement of the accident.

Dr. Payen ordered wet cloths to be applied to all the wounded parts, and to be changed every half-hour. From what the medical friend in London had told me of the risk of cold applications in cases where much skin was destroyed, I could not help having some doubts as to the

propriety of using this treatment for any length of time, particularly as the sufferer was in such a chilly, feeble state. Tuckett and I discussed this point when the doctor was gone, and our views coincided.

Tuckett had offered to divide the night with me and proposed taking the first part, promising to call me at 1 A.M.; but he good-naturedly let me sleep on, and it was not till four that I awoke, and at once went to the patient's room. Tuckett told me he had always allowed three quarters, sometimes an hour to elapse before changing the cloths. As Birkbeck was very cold, we used warm water instead of cold, in which to dip the cloths, and we also put blankets and hot bottles to his feet.

It was 6 A.M. on Friday 12th, when Mr. Downton and Dr. Metcalfe arrived. The latter at once insisted on the importance of devoting our first thoughts and care to restoring the vital energy. The pulse was almost, if not quite, imperceptible, and the danger was lest the patient should not rally from the stupor into which he had sunk. We at once procured several hot blankets and sheets, arranged them on a dry mattress, and transferred Birkbeck to them; we put fresh hot bottles to his feet, and covered him with more hot blankets. By Dr. Metcalfe's direction we gave him brandy and milk every half hour. Mather relieved guard as head nurse at this time, and most ably did he carry out the doctor's wishes. Dr. Metcalfe told me he attributed the restoration of his patient in very great measure to the promptness and regularity with which his directions were attended to, and he specially named Mather's care and skill in administering the stimulants. In four hours there was a marked improvement in tone generally, and the pulse was perceptible, and before night Dr. Metcalfe was hopeful about his patient's final recovery. He was of opinion that the cold water was an excellent application

for the first few hours, to allay fever and inflammation ; but it required very close watching that it might be stopped at the proper moment. In his opinion the cold treatment had been carried on too long.

The following morning Birkbeck was apparently out of danger, and day by day, increased in strength. We persevered in applying wet lint covered with oiled silk, which was daily changed. In about a fortnight all the dead skin (cutis) came off piece by piece, and the wounds throughout looked remarkably healthy, and were healing as well as we could have expected.* The shock to the system and nerves will take most time for complete restoration.

I left St. Gervais on the 3rd of August, my proper leave of absence being at an end, and took wing believing that my services were no longer needed as they were so ably fulfilled by Mr. George Stansfeld and Joseph, the nurse. The gentler part of the nursing I had long surrendered to Mrs. Birkbeck and Miss Stansfeld (who had gone to Switzerland on hearing of the accident).

Though I have written so much I seem to have a great deal more to tell ; and first, — let me return to the point where we found Birkbeck on the snow and describe his appearance. His legs, thighs, and the lower part of his body were quite naked with his trousers down about his feet. By his passage over the snow, the skin was removed from the outside of the legs and thighs, the knees, the whole of the lower part of the back and part of the ribs together with some from the nose and forehead. He had not lost much blood, but he presented a most ghastly spectacle of bloody raw flesh. This, added to his great prostration

* This account was written shortly after the accident, and I regret to say the hope of our friend's speedy restoration was soon interrupted by less favourable symptoms, and he is still not quite recovered.

and our consciousness of the distance and difficulties which separated him from any bed, rendered the sight most trying. He never lost consciousness. He afterwards described his descent as one of extreme rapidity, too fast to allow of his realising the sentiment of fear, but not sufficiently so to deprive him of thought. Sometimes he descended feet first, sometimes head first, then he went sideways, and once or twice he had the sensation of shooting through the air.

The slope where he first lost his footing was gentle, and he tried to stop himself with his fingers and nails; but the snow was too hard. He had no fear during the descent, owing to the extreme rapidity; but when he came to a halt on the snow, and was ignorant as to whether we saw, or could reach him, he experienced deep anguish of mind in the prospect of a lingering death. Happily, however, the true Christian principles in which he had been brought up, led him to cast himself upon the protection of that merciful Being who alone could help him. His prayers were heard, and immediately answered by the removal of his fears; and he forthwith, in their place, experienced a strong and unchanging conviction that his friends would reach him, and rescue him from his perilous position.

Dr. Metcalfe's report of the case:

'When first I saw Mr. Birkbeck, his position on the bed was that of extreme prostration of the nervous system. He was lying on his back with the arms and legs extended downwards, and showing from their positions an extreme want of nervous power. The face was much swollen, so as to prevent any expression; the forehead having the appearance of a bladder partly filled with water, and, at the same time, much discoloured by the scratches and the effects of the sun. The nose, also swollen, was on the right side blackened, as if a piece of black leather had been gummed on one side of it, and spread over the cheek in a triangular form of about one inch wide by two long. This patch was skin, killed by friction in the fall. The eyes were uninjured;

only showing the dilatation of pupil common to a great nervous shock. The eyelids were swollen, nearly closed and red. Each hand was much swelled and bruised on both sides, the back of each discoloured, and patches of skin destroyed by friction, whilst the ends of the fingers were denuded and worn down by their contact with the hard snow. To those accustomed to the accidents from machinery called in Manchester and Leeds "brush burns" (where the friction of a strap or brush in quick motion passing over a part without removing the flesh destroys its vitality), the resemblance of the present case would be striking. The lower jaw was painful when moved, as if it had received a wrench in the fall, though at the same time protected from abrasion by the collar of his coat. The mind appeared quite right in all points, except the semi-dullness consequent on a great shock, which here was both bodily and mental; the injury being by comparison gradually received, not instantaneous. The voice, though feeble and used with some effort, evinced no wandering nor loss of power; whilst the intonation might be accounted for by the swollen lips and half-closed mouth. On my first seeing him the pulse was barely perceptible, the extremities were cold, as was also the rest of the body, and the general impression produced was that power of reaction was lost, or as nearly so as possible. No bones were injured, no vital organ affected, and the danger to be feared arose from the great extent of surface injured. The marks began on one side, high up on the chest, as if the arm had been thrown up and the clothes turned over the head; then, lower were transverse scratches, running round the sides, again diagonal ones, in some parts the skin not distinctly scratched but torn and bruised. The back, both from the lower part on both sides and some distance upwards, was also torn and bruised. The legs, on the outside, were cut in every direction according to the momentary position as he fell down; there was a wrench on the right thigh, causing some swelling at first on the inside. The most severe local injuries were on the knees, and outside the calves on the legs, where the true skin was nearly destroyed. Before I saw Mr. Birkbeck the doctor on the spot had applied wet towels to all the wounds. The patient's friends, however, had most judiciously discontinued the constant change of them, and placed hot water to his feet and covered him with blankets. A decided change appeared to be needed, and I removed all the wet towels, and replaced them with hot blankets

and sheets; giving brandy and milk every half hour. Hour by hour there was a gradual improvement in heat and vital energy.'

Thus Dr. Metcalfe concludes his report. In common justice to him I must mention how carefully he watched the case so as to avail himself of any change; he even proposed to sit up the first night, though he had been travelling the whole of the previous one; but as Birkbeck appeared so much better before evening, I would not consent to this arrangement, and his other nurses divided the night between them.

From Dr. Metcalfe's immense practice in cases of accidents he was quite at home in this, which to some might have been very difficult from its novelty.

Dr. Hennen, an old friend of mine, arrived about a fortnight after the accident; he kindly visited Birkbeck the morning after his arrival and was present when we were dressing him. Dr. Hennen expressed surprise that so much progress should have been made in the time, and he appeared more astonished at the prospect of Birkbeck's ultimate recovery than that his life should have escaped in the first instance, or that we should have got him down alive. Dr. Hennen, who was making some stay at St. Gervais, kindly offered his services so long as he remained. Birkbeck was most happily provided with a continual supply of both medical advisers and nurses; when one was obliged to go, another at once appeared. Dr. Metcalfe performed the most difficult task of all, viz., raising the sufferer from almost fatal prostration to a state apparently pretty free from danger. Our work afterwards merely required watchfulness and delicate handling.

Mrs. Kennedy, an English lady staying at St. Gervais, kindly made us two sets of coverings for the legs, thighs, and back, with strings attached; and these were vastly

more convenient than bandages, and did not require a quarter of the time to adjust them.

Madame Naville Saladin, from Geneva, was most kind in various ways. Through her means we obtained a supply of French lint (*charpie*), when we were entirely without any English; and at her request, a Genevese doctor (M. Brot), who was staying at St. Gervais with his family, good-naturedly superintended our doings in the interval after Dr. Metcalfe had left us until Dr. Hennen came. Others, both English and foreigners, were very obliging in offering aid. Mrs. Fane, from Lincolnshire, who was then staying at the baths with her family, at once sent her son, an Indian officer, to offer her services in any way. She kindly supplied us twice with old linen, and offered us the use of her man-servant; but this latter we did not require.

On Friday, the 2nd of August, Mollard and I went to a point about 100 feet below the position where we reached Birkbeck. My principal object was to ascertain its altitude, in order that, by taking the difference between its height and that of the Col, we might know the exact distance that Birkbeck fell. Tuckett and I made observations with sympiesometer and aneroid on the Col, before the accident. The result of our observations is as follows:—

The height of the Col de Miage is 11,095 feet. The height of the point at which Birkbeck finally came to a standstill is 9328 feet; so the distance he fell is, in *perpendicular* height, 1767 feet.

During the intervening three weeks, vast changes had taken place in the glacier. The snowy coating had left the couloir in parts, thus exposing ice in the line of Birkbeck's course, as well as a rock midway in the slope, against which our poor friend would most likely have struck, had the accident happened later.

The whole couloir was divided from side to side by a wall of névé, of from ten to twenty feet in height, over which, at a later period, he would inevitably have been precipitated. Huge and continuous crevasses had opened at the foot of the slope on which Birkbeck's course had been arrested, so as to cut it off from the plain of snow across which we had dragged him, and by which we had found an exit from the glacier world. At this second visit it would not have been practicable to carry the sufferer the way we did; and the only alternative would have been to go over the difficult rocks and broad steep slopes of snow by which Mollard and I approached the foot of the Col.

This is one more of that long chain of providential arrangements, by the combination of which we were enabled to save Birkbeck's life.

(1.) The recent snow, and favourable state of the glacier, enabled us to take an easier and much quicker route, if not the only possible one for a wounded man.

(2.) We had a singularly strong party of guides, without which we could not have got him down in time to afford any chance of his recovery.

(3.) If we had not had real efficient men as travellers in the party, we should not have got the telegram sent to Geneva; and a few hours' delay in the arrival of Dr. Metcalfe would probably have been fatal.

(4.) The day was perfectly calm and cloudless; had there been wind, or absence of sun, the cold might have been too much for such a shaken system to bear.

(5.) We had with us the very unusual addition of a sledge, without which it would have been scarcely possible to have carried him down.

To whom, then, is due the praise for all these mercies? Surely to Him who guides and protects us day by day.

To Him, then, let us give all glory and thanks, as often as we call to mind that wonderful chain of mercies by which He enabled us to rescue our friend, and thus averted sorrow from many hearts.

One thing there was which greatly lessened the mental trial to those engaged in bringing Birkbeck down to St. Gervais, and afterwards in attending upon him; and that was, his perfect calmness and patience,—and of these I cannot speak too highly. No doubt it contributed greatly to his recovery.

I hope I have at least glanced at all interesting points connected with this sad accident, which was really as unlikely to have happened as that a man, in looking out of a window, should overbalance himself, and break his neck.