culties are impending. No other manly exercise thus brings out these two distinct effects, these effects of bodily and mental culture. I am therefore justified in claiming for Alpine climbing the first rank among athletic sports, as the nourisher of those varied elements that go to form all that is commendable in the constitution of the Anglo-Saxon character.

After remaining at the top three-quarters of an hour, we rapidly descended. Our ascent had occupied twelve hours all but ten minutes. A second ascent would doubtlessly require less time; however, we made a fair pace on the descent, for five hours and forty minutes saw us once more at S. Martino, thus bringing us there at five minutes before six, or five minutes before the time appointed for meeting the cars. They were, however, in readiness, and we were not long in jumping in. The head waiter took charge of Stephen and me in the first carriage, the boy in blue brought up the rear with Melchior and Cox. I will not stop to describe how we rattled merrily along; how, at a turn in the road, the blue boy's steed fell to the ground, luckily throwing the occupants of the car into the road, and not over the precipice; nor how we reached the most ticklish part of the road just as it was growing dusk; nor how the horses shied at a waterfall and nearly caused another overturn; nor how, upon gaining the high road, we tried to get up an Olympic chariot-race. Oh! the dangers that await those unhappy beings who travel in cars, how far do they surpass the perils attendant upon a real mountain excursion! We reached Sondrio at half-past ten: supper, champagne, and success put us at peace with all the world, and we found ourselves, somewhere about midnight once more in bed. We had thus made a day of twenty-four hours, but whether it was the same day, or the next day, or the day after that day, or the same week, or the next week, that that day ended, is one of those things that no fellow could tell.

A Narrative of an Accident on the Aletsch Glacier in August 1862; with Remarks on the Necessity of making use of a Rope on Glacier Expeditions. By William Longman, F.G.S., Vice-President of the Alpine Club.

AN accident which happened to my son on the Aletsch glacier, in August last, having attracted general attention, and the published accounts of it being incorrect, it seems desir-

able to relate the circumstances accurately, and to take the opportunity of impressing inexperienced glacier travellers with the necessity of great caution, when making excursions on the ice. All glacier travellers should be tied together when the glacier is covered with snow, and, whenever the rope is used, all, guides included, should be fastened to it. It is too often the case that the guides neglect this precaution, and only hold the rope in their hands. The accident to my son arose from the culpable carelessness of a guide; but two fatal accidents, to which I wish to call attention, arose from the guides holding the rope in their hands instead of being tied to the travellers.

The first is that which happened to a Russian gentleman, named Edouard de Grotte, who left Mattmark-see on the morning of Saturday, August 13, 1859, accompanied by two guides, to cross the Weissthor, and descend to Zermatt by the Findelen glacier. The traveller and his guides were fastened together by a rope, but it was only the traveller who was actually tied; the two guides passed their left arms into large loops at the ends of the rope. In this way they had passed safely over the greater part of the glacier, when they came to a large patch of snow, which the guides, according to their own account, proposed to pass round, but which M. de Grotte insisted on crossing. The first guide passed over safely, and M. de Grotte followed, but when he reached the middle, the snow gave way, and he sank into a hidden crevasse, from which he was never extricated alive, as the guides were unprovided with a second rope, and, long before one could be procured from Zermatt, he was frozen to death. The cause of the disaster must for ever remain a dark mystery. The guides say the rope broke at each end, which is most improbable; and, moreover, when the rope was examined, it seemed to have been cut, and the fractures or cuts were near to, and about the same distance from, each end. M. de Grotte's brother went to Zermatt to enquire into the circumstances, and seems to have satisfied himself that there was no ground for suspecting foul play; it is probable, therefore, that when M. de Grotte fell, the rope was jerked off the arms of the guides, and that they subsequently took an opportunity of cutting it, with the view of supporting their story of its breaking, and thus concealing their own culpable carelessness. But, accepting the guides' own account as a true relation of what took place, it follows that the accident arose from the rottenness of the rope; while, on the other hand, if we believe that the rope was jerked off the guides' arms by the fall of their companion, it is clear that the accident arose

from the careless manner in which the guides were fastened. In either case the accident would have been prevented by the possession of a proper rope properly attached.

The next accident, to which I wish to call attention, is that of the melancholy death of three Englishmen and a guide, on the Col du Géant, on the 15th of August, 1860. They left Chamounix at five o'clock in the morning, accompanied by three guides, intending to reach Courmayeur that evening. They had some rough weather; the travellers were not accustomed to glacier-climbing, and they were consequently a good deal fatigued when they reached the col at about four o'clock. To experienced travellers, and with common prudence, all danger was then over; but the travellers wished to avoid the laborious descent of steep rocks, and took to a steep snow-slope in preference. To this the guides should not have consented; but when it was determined to descend by the snow-covered ice-slope, *all* should have been tied together by the rope. This was not done; the travellers were tied, but the guides only held on by their hands. What was the result? The travellers slipped, and the guides were prevented from giving proper help by their not being tied. Their hands, which should have been free to use the trusty alpenstock, were employed in the fruitless effort to hold up heavy-falling bodies without a fulcrum to rest on. The most experienced Alpine travellers have publicly expressed their opinion, that neither the angle of the slope nor the state of the snow were sufficient to have prevented three experienced guides, with good alpenstocks, and hands free to use them, from arresting the fatal descent of three men attached to them by ropes.

It would be easy to multiply instances of the fatal results of not using, or improperly using, a rope; but before relating the incidents of my son's escape last year, I will only mention two instances, which have come under my own observation, of narrow escapes from danger incurred by neglect of the rope.

In 1856, I crossed the Tschingel with a friend and two guides, and after passing the Tschingel-tritt, we proceeded over the glacier, which was covered with three or four feet of snow, concealing the crevasses. We had a rope with us, but we did not use it, when, suddenly, down went Linder, one of our guides. His fall was arrested by his knapsack; but he could not have extricated himself, and it was obviously the merest accident that he did not fall to a depth whence escape without a rope would have been impossible. Had we been tied together, there would have been no danger. After this, we were, of course, tied together, and, within a few minutes, my com-

panion was held up by the rope from a hole into which he had fallen.

Two years afterwards, in 1858, I myself had a narrow escape on the Aletsch glacier, owing to the fact that I and my companions were unprovided with a rope. I left the Æggischhorn, with a friend and a guide, intending to visit the lovely Märjelensee, and then make an excursion on the Aletsch glacier. The glacier was covered with snow, and consequently the crevasses were concealed; but our guide was very careful in probing with his alpenstock, and many a crevasse was leaped over with ease and safety. At last we arrived at one which, probably, was somewhat wider than those we had up to that time passed over. Still, it was an easy jump. The guide leaped it with ease, and so did my friend; but when it came to my turn, I unfortunately placed my foot a few inches too far forward. The result was that when I sprang, my foot went through the snow, I consequently jumped short, and the other foot went through also. My friend reached his hand to me, and I was on the solid ice in an instant. Our curiosity prompted us to examine the holes I had made, and we looked down into an apparently bottomless crevasse. Had the snow not supported me until my friend's hand reached me, it was clear that I should have fallen into a chasm, from whence rescue would have been impossible, as we were unprovided with a rope. Had we been tied together, no chance of danger would have arisen.

The circumstances I have now related, and the oft-repeated opinions of experienced friends, impressed me with the necessity of always making use of a trustworthy rope on all glacier excursions, and I consequently provided myself with one in London, preparatory to my excursion of last summer. It was made of flax, in order to combine flexibility and moderate thickness with sufficient strength; and it was fixed to belts by spring hooks, in order to secure easy and safe attachment. I and my son reached Switzerland early in August, and arrived at Wellig's comfortable hotel on Monday, August 25th. On the following morning we set out for a visit to the Märjelensee, and an excursion on the Aletsch glacier, with the intention of getting as far beyond the Faulberg as time would allow. The weather was perfect, and everything promised a most agreeable excursion. In addition to myself and my son, our party consisted of two friends, Vivian Hampton, and F. P. Barlow, junr.; Fedier, a guide whom we had taken for our whole journey; Andreas Weissenflüh, of Mühlestalden, a brave but modest and unassuming young fellow, to whom I am indebted for saving my son's life; and a porter from the Æggischhorn

hotel. We took the latter to act as a local guide, for none of the party but myself had ever been on the Aletsch glacier. Of course we took our rope, and, fortunately, I insisted on a second rope being also taken with us.

We started in high spirits, and all were delighted with the Märjelen-see, which was in great beauty. A hope that time would permit a near approach to the foot of the Jungfrau col was indulged in: the glacier was in perfect order; no fresh snow covered the ice; the crevasses were all unhidden; and no one thought it necessary to use the rope. I felt it to be a wise precaution, however, to place my son, a boy of fifteen years of age, under the charge of the Æggischhorn porter. It was his second visit to Switzerland, and he could, I am sure, have taken good care of himself; but I felt that it was my duty to place him under the care of a guide. I have no wish to throw undeserved blame on the guide; but his carelessness was unquestionably the immediate cause of the accident. He began wrong, and I ought to have interfered. He tied his handkerchief in a knot, and, holding it himself, gave it to my son to hold also in his hand. This was worse than useless, and in fact, was the cause of danger, for it partly deprived him of that free and active use of his limbs, which is essential to safety; it threw him off his guard, and seemed to supersede the necessity of his taking care of himself, without supplying a substitute of any value. Except at a crevasse, it was unnecessary for the boy to have anything to hold by; and, at a crevasse, the handkerchief would have been insufficient. The impression that there was no real danger, and that all that was required was caution in crossing the crevasses, prevented my interfering. So the guide went on, his hand holding the handkerchief behind him, and my son following, his hand also holding the handkerchief. Many a time I complained to the guide that he took my boy over wide parts of the crevasses, because he would not trouble himself to diverge from his path; and many a time did I compel him to turn aside to a narrower chasm. At last, I was walking a few yards to his left, and had stepped over a narrow crevasse, when I was startled by an exclamation. I turned round suddenly, and my son was out of sight! I will not harrow up my own feelings, or those of my readers, by attempting to describe the frightful anguish that struck me to the heart; but will only relate, plainly and calmly, all that took place. Where my son fell, the crevasse, which I had crossed so easily, became wider, and its two sides were joined by a narrow ridge of ice. It was obviously impossible to ascertain exactly what had taken place; but I am convinced

that the guide went on in his usual thoughtless way, with his hand behind him, drawing my son after him, and that, so soon as he placed his foot on the narrow ridge, he slipped and fell. I rushed to the edge of the crevasse, and called out to my poor boy. To my inexpressible delight, he at once answered me calmly and plainly. As I afterwards ascertained, he was fifty feet from me, and neither could he see us, nor we see him. But he was evidently unhurt; he was not frightened, and he was not beyond reach. In an instant Weissenflüh was ready to descend into the crevasse. He buckled on one of my belts, fixed it to the rope, and told us to lower him down. My two friends and I, and the other two guides, held on to the rope, and, slowly and gradually, according to Weissenflüh's directions, we paid it out. It was a slow business, but we kept on encouraging my son, telling him all that was going on, and receiving cheery answers from him in return. At last Weissenflüh told us, to our intense joy, that he had reached my son, that he had hold of him, and that we might haul up. Strongly and steadily we held on, drawing both the boy and the guide, as we believed, nearer and nearer, till at length, to our inexpressible horror, we drew up Weissenflüh alone. He had held my son by the collar of his coat. The cloth was wet, his hand was cold, and the coat slipped from his grasp. I was told that when my boy thus again fell, he uttered a cry, but either I heard it not or forgot it. The anguish of the moment prevented my noticing it, and, fortunately, we none of us lost our presence of mind, but steadily held on to the rope. Poor Weissenflüh reached the surface, exhausted, dispirited, overwhelmed with grief. He threw himself on the glacier in terrible agony. In an instant Fedier was ready to descend, and we began to lower him; but the crevasse was narrow, and Fedier could not squeeze himself through the ice. We had to pull him up again before he had descended many feet. By this time the brave young Weissenflüh had recovered, and was ready again to go down. But we thought it desirable to take the additional precaution of lowering the other rope, with one of the belts securely fixed to it. My son quickly got hold of it, and placed the belt round his body, but he told us his hands were too cold to buckle it. Weissenflüh now again descended, and soon he told us he had fixed the belt. With joyful heart some now hauled away at one rope and some at the other, till at length, after my son had been buried in the ice for nearly half an hour, both he and the guide were brought to the surface. . . . . Let a veil rest over the happiness of meeting.

When my boy rejoined us, he was somewhat cold, but

otherwise unhurt. We all refreshed ourselves with wine, and slowly and solemnly, with overflowing hearts, we retraced our steps, reached the hotel in safety, and the next morning my son tripped lightly on his way, uninjured, but not unimpressed by the danger from which he had escaped.

His own account of what befell him is, that he first fell sideways on to a ledge in the crevasse, and then, vertically, but providentially with his feet downwards, till his progress was arrested by the narrowness of the crevasse. He says he is sure he was stopped by being wedged in, because his feet were hanging loose. His arms were free. He believes that the distance he fell, when Weissenflüh dropped him, was about three or four yards, and that he fell to nearly, but not quite, the same place as that to which he fell at first, and that, in his first position, he could not have put the belt on. His fall was evidently a slide for the greater part of the distance; had it been a sheer fall it would have been impossible to escape severe injury.

I have written this account, partly from a wish to impress on glacier explorers the absolute necessity of always making use of a good rope, and partly from a strong desire to place on record a true narrative of all the circumstances. But I cannot conclude without expressing my deep sense of the kindness and skill shown by my companions on this trying occasion, and, above all, I wish to recommend the brave young Andreas Weissenflüh and his father, of Mühlestalden, in the Gadmen Thal, to the notice of all Alpine travellers as excellent guides, and noble, trustworthy men.

A Night on the Summit of Monte Viso.

By F. F. Tuckett, F.R.G.S.

ON the 2nd of July, 1862, in company with my guides, Michel Auguste Croz of Chamounix and Peter Perrn of Zermatt, I left Turin for Pinerolo, proceeding the same afternoon as far as La Torre. On the following day we ascended the Val Pellice, engaging at Bobbio a good-natured, tough little fellow, Bartolommeo Peyrotte by name, as porter, for 2 francs 45 centimes and his food per diem, and reaching at 4 P.M. the summit of the Col de Seylières, where a glorious view of the Viso at once burst upon us.

We lingered there for an hour, and at 5 commenced the descent into the head of the valley of the Guil, which bears the