quarters once more at the cabane. This time Morpheus was propitious, and I slept the sleep of the just. Next morning we reached the Montenvers without any other adventure than the fall of a snow bridge, which brought us all in a heap into a shallow crevasse. For the last mile or two I could see that Cupelin had something on his mind—a joke, I knew, and I waited patiently for its appearance. Just before entering the hotel, he pointed to the now distant Dent du Géant, and exclaimed with a perfect storm of chuckles, 'Nous aussi, nous avons reculé, mais—pour mieux sauter.'

The Alpine Obituary. By C. E. Mathews.

SOME time since, when I had the pleasure of addressing my colleagues of the Alpine Club on the growth of mountaineering, I ventured to remind them that our obituary was a sad one, and that probably few of our members 'had any idea of the number of lives lost in the Alps since Edouard de la Grotte fell into a crevasse on the Findelen Glacier twenty-five years ago.' I did not then enlarge upon the subject; it seemed to me that to do so would serve no useful purpose. But the terrible accidents which have recently occurred, and the facts that two of the victims of the last season were members of our own Club, and that all of them were men of ability and reputation, whom their friends or their country could ill afford to lose, have convinced me that the time has come when the Alpine death-roll should be looked fairly in the face.

It is lamentable that whenever a serious accident occurs in the Alps, there is generally an outburst of ignorant and foolish criticism. The public are warned against the folly of mountaineering; they are informed that we wilfully run unnecessary risks; that we climb almost impossible peaks from a pure spirit of bravado, from a desire to brag of our exploits, or from some other motive of equal silliness and stupidity. Criticism is good for all of us, but it is only really valuable in proportion to the knowledge of the critic. There was a time when climbing was regarded by some people as a proof of lunacy, but as the taste for mountaineering became more widely spread and the climbers better known, the wiser critics have admitted that we were men whose pursuit, whether dangerous or not, 'it would be impertinent to treat otherwise than with serious and rational respect.'

Under these circumstances it is no longer necessary to

justify the practice of mountaineering. What does concern us is to inquire at what cost 'the playground of Europe' has been added to the recognised amusements of Englishmen; whether the game is worth the candle; above all, whether the disasters which have chequered Alpine history are or are not attributable to purely preventable causes.

It is not possible to contemplate with a light heart the grave list of casualties which I now present in a tabulated form to the readers of the Journal. In compiling it I have endeavoured to avoid all exaggeration; 'to nothing extenuate nor set down aught in malice.' Many accidents have occurred in the Alps below the snow line, in sub-Alpine regions, on road, or lake, or river. With these I have nothing to do. Many a life has been lost in the attempt to investigate the structure of some particular rock, or to obtain possession of some coveted flower. Of these I take no count. The accidents to which I desire to call attention are those only which have happened to mountaineers at work, and which have proved fatal on the spot. Probably the list is not an exhaustive one, but ''tis enough; 'twill serve.'

In 1856, when mountaineering was in its infancy, a Russian gentleman, accompanied by two guides, was crossing the Findelen Glacier to Zermatt. He was duly roped; but the guides, ignorant of their work, held the two ends of the rope in their hands. The traveller fell into a concealed crevasse; the rope was at once jerked out of careless hands; and M. de la Grotte now lies in the old churchyard at Zermatt.

In 1860, two years after the Alpine Club had become a recognised institution, and when the means of avoiding a certain class of accidents should have been well-known, three English gentlemen were descending from the Col du Géant towards Courmayeur. It was late in the afternoon, and the snow was fresh and soft. The travellers were tied together, but the first and last guides held the ends of the rope in their hands. The leading guide, the well-known F. Tairraz, walked by the side of the party, taking hold of the rope from time to time. Everything being thus made ready for an accident, it immediately occurred. One of the travellers slipped; the first and last guides could, of course, render no assistance, and were only able to save themselves. All the travellers perished, and Tairraz declined to survive the disaster and perished with them.

There was then immunity from accidents for two years, but early in 1864, from ignorance of the state of winter snow, the gallant Bennen, whom some of the older members of

the Club will so well remember, was lost with one of his Herrschaft in an avalanche on the Haut de Cry.

Then came the memorable accident on the first ascent of the Matterhorn, in 1865, when, owing to easily avoidable causes, four valuable lives were thrown away, and among them that of one of the ablest guides who ever wielded ice axe in the Alps. Misfortunes came thickly in this eventful year, and before the season closed six more victims were added to the death roll.

The loss of Mr. Young on Mont Blanc in 1866 was perhaps the most inexplicable of recorded accidents, whilst that of Captain Arkwright and three of his guides on the Grand Plateau in the same year, was an exact repetition of the celebrated accident to Dr. Hamel's party more than sixty years ago.

Two lives were lost in 1868, two more in 1869, and in 1870 occurred that fearful disaster on Mont Blanc, when one Scotch and two American gentlemen, with eight guides, were either blown from the Calotte or perished miserably from cold and hunger. Another life was lost in 1871, two in 1872, two in 1873, two in 1874, two in 1875, and three in 1876.

In 1877 an accident occurred from an entirely new cause. Two members of the English Bar, accompanied by three well-known guides, attempted the Lyskamm from the Lysjoch. By this time contempt had followed familiarity. The leading guide led his party on to an overhanging cornice of snow, and every member of the expedition paid the penalty of the rashness of their leader.

Five lives were lost in 1878, five in 1879, four in 1880, five in 1881, and in spite of all experience, all knowledge, all warning, the season that has just closed has been as fruitful of disaster as any that has been recorded in our annals.

These are the facts, painful and inexorable. What lessons are to be drawn from them? If the pursuit of mountaineering —which does not add much to the book of human knowledge, but is admittedly followed for the health and pleasure of its votaries—if this sport, noble as it undoubtedly is, can only be obtained at such great sacrifices; if it is *necessary* that eighty-seven lives should be thrown away in a mere handful of years, in order that some hundred men should enjoy an annual holiday after this particular pattern, then the game is emphatically not worth the candle, and mountaineering should be discountenanced by all those who profess to regulate their lives on the principles of prudence and good sense.

But is it so? Is mountaineering really a pursuit containing

so many elements of danger that a man of reasonable prudence ought to forego it? or does the danger really result from the careless or wilful neglect of those precautions which observation and experience have proved to be necessary? Let this question be tested by reference to the death roll.

I suppose that it is an obvious truism that no sane man should undertake an expedition, even of the third or fourth order, unaccompanied by friend or guide; and yet on reference to our obituary it will be seen that eight of the fatal accidents there recorded have happened to gentlemen climbing alone. Is it reasonable or fair that our pursuit should be discouraged in consequence of accidents such as these?

Again, if there is any precaution better understood than another, and in respect of which the law has been laid down by competent authority with wearisome iteration, that precaution consists in the proper use of the rope. To cross a glacier unroped is to court danger, nor would any guide now consent for a moment to hold the end of a rope in his hand. If the strain came upon him, his hands would be useless. But, if the rope is fixed round his waist, he has both hands free, and by the proper use of the ice-axe he can arrest a slip under any ordinary circumstances. There is no accident on record—with one single exception—that has occurred on a glacier, by a fall into a crevasse, to a party properly roped together. I feel almost humiliated to have to enforce so elementary a mountaineering proposition. It is the first lesson the novice has to learn. Of course, a man may cross a glacier unroped without falling into a crevasse, just as a man may cross a rifle range while practice is going on, without being shot, but the difference between crossing a glacier with or without a rope is the difference between perfect safety and inexcusable rashness. The use of the rope is equally necessary on rocks. If the rocks are not very difficult, the slip of one member of a party can be easily arrested. If they are, in places of exceptional difficulty only one person should move at a time. Will it be believed that eighteen of the deaths here recorded are attributable to the neglect of this obvious and simple precaution? It was culpable negligence, and that only, which cost the lives of Elliott and of Moseley. Only one verdict could be given by an honest jury on deaths like these—'Suicide, whilst in a state of sound mind.'

There is some difference of opinion as to the numbers of which a climbing party should be composed. But whatever number is right, two is unquestionably wrong. A sudden illness or a slight accident to one of the party, and the other is

of little use. Imagine, for instance, a man who has sprained his ankle seven or eight hours from home. To leave the sufferer for many hours is very painful; to remain with him is practically useless. A party on any mountain of the first or second order should never be less than three. The typical party for comfort and safety consists of two travellers and two guides. With one traveller and one guide the latter is overweighted in more senses than one; with two guides the labour is equally divided. On reference to our obituary it will be seen that nine deaths have occurred in cases where the party has consisted of two persons only. In other words, the smaller the party the greater the risk of disaster.

During the past season the snow has been exceptionally bad. The attack on a new peak like the Aiguille Blanche de Peuteret, an obelisk of rock on the south side of Mont Blanc, demanded a strong party and favourable conditions of weather and of snow, but every precaution was disregarded. The state of Professor Balfour's health before he left England was such that some of his friends urgently pressed him not to climb. He took one guide only with him, and he made the expedition contrary to the express advice of Emile Rey, of Courmayeur, no mean authority, who not only declined to accompany him, but warned him of the state of the snow, and earnestly dissuaded him from the enterprise. The snow on the Wetterhorn was known to be in bad order when Mr. Penhall attempted it, also with one guide only, in August last. The expedition should not have been made.

Although we must ever mourn for the brave men who have rendered good service to the Club, and whose loss makes a gap that will not be easily filled, it is none the less our duty to see that the responsibility is put upon the right shoulders, and that our pursuit should not be held up to unmerited obloquy because some sanguine men persist in neglecting the ordinary safeguards which alone make that pursuit justifiable.

There is another cardinal mistake which is still too often made, which has resulted in many accidents, and if persisted in may result in many more. I mean climbing in bad weather. I fear that there are few members of the Club who can honestly plead not guilty to this charge. It is true that if a man has set his heart upon a particular peak, and he gets within an hour or two of the top of it before bad weather comes on, it is very hard to turn back. The average Englishman does not like to be beaten. But after all, is it not the truest courage to run away? Every climber knows the enormous difference between mountaineering in sunshine and in storm. The risks on what

is ordinarily an easy mountain become tremendous in bad weather, and the climber is in the worst physical and mental condition for grappling with them. The worst accident we have to record, that on Mont Blanc in 1870, when eleven lives were lost, would have been avoided if the party had retreated before the storm began. I cannot help thinking that it is rather obstinacy than true courage which induces a man to persist in an enterprise when wind and weather are against him. The real bravery is to accept defeat. Under such circumstances, he who climbs and runs away, may live to climb another day. Every prudent man will, therefore, set his face against such a flagrant breach of the unwritten laws of climbing morality. And every prudent guide if asked to proceed under such circumstances will answer as Melchior Anderegg once did to a climber in my hearing—'Es geht, Melchior!' said my friend, when we came to an impracticable spot. 'Ja!' replied Melchior, 'es geht, aber *ich* gehe nicht.'

Many of the accidents in our obituary have resulted from avalanches. I know that some persons are of opinion that accidents from this cause are among those which are most difficult to avoid. I do not share in this view. Avalanches are of two kinds: those which result from the falling of fresh snow down a more or less steeply inclined plane, and those which result from the fall of ice from an overhanging glacier. In my judgment, no party should ever run the slightest risk of an accident from either. All of us know the 'Ancien Passage.' In settled weather, when the snow is old and in good order, no accident is possible at this spot, but after fresh snow, it is the playground of avalanches, as Captain Arkwright and his three guides found to their cost fourteen years ago. The risk is always great in working under an overhanging glacier. I remember, in the year 1870, ascending the Pizzo Bianco to inspect the east side of Monte Rosa. Mr. Morshead and myself had set our hearts on making the first passage over the Höchste Spitze, from Macugnaga, to the Riffel. We were advised by eminent guides. After a long examination we were forced to admit that we could not get up without crossing the tracks of ice avalanches, and thereby incurring a serious risk, which, in our judgment, was not justifiable. As a matter of fact, some avalanches fell whilst our inspection was being made. I know that Dr. Taylor and the Messrs. Pendlebury made this excursion in 1872, after Ulrich and Christian Lauener and the veteran Almer had declined to have anything to do with it. Now if Dr. Taylor's party could have satisfied themselves that by a very early start they could

get above the avalanche-tracks before the sun had power to loosen the overhanging ice, the ascent might have been less open to hostile criticism. But Dr. Taylor himself informed us that at 2 A.M. 'a deep roll from the Zumstein announced that the avalanches were waking early.' The excursion has been more than once repeated. Last year, however, the inevitable result occurred. Signor Marinelli and his two guides were in a dangerous position *late in the afternoon.* They fell in with the ice avalanches which Dr. Taylor had avoided, and were killed on the spot. In other words, the culpable neglect of ordinary precautions had its natural consequences.

I have already referred to the 'cornice accident' of 1877. This was clearly the result of bad guiding. Even good guides sometimes fail to take sufficient precautions. One would have thought that an accident so striking and so melancholy would have been warning enough for all time, and yet within the last three or four years two parties have been nearly sacrificed from precisely the same cause, on the Piz Palu and the Gabelhorn, and in each case were only saved by the skill and dexterity of the rear guide.

There can be no doubt that in these days men climb Alps who are not fitted for it, and who would be much better at home. They are not only often out of training, but altogether ignorant of the very alphabet of their art. Conceive a man who knows about enough of cricket to play in a match at a country school, thinking himself worthy to play at Lord's against Australian bowling; and yet men, whose pedestrian feats have not amounted to more than Skiddaw or the Glyddrs, sometimes rush out to the Alps and expect to be conducted safely to the top of the Weisshorn or the Matterhorn.

Accidents do not happen to men who understand their business, and do not neglect reasonable precautions. The pioneers of the Alpine Club learned their work slowly. They laboured in new fields and at great disadvantages. They had the dread of the unknown before them as well as its charm. Perhaps they were over-cautious, but they had their reward. Peak after peak fell before them; col after col was crossed. New expeditions were made season after season, often under circumstances of unusual difficulty; but there is not a blot upon their mountaineering escutcheon, there is not a single accident to record. This fact is worth earnest consideration. But, as Mr. Stephen has told us—and mountaineers never had a more prudent or more sagacious adviser—'The modern race of mankind is in a too great hurry. It refuses to serve an apprentice-

ship to anything. It believes that by a little happy audacity and the expenditure of enough money it can leap over all preparatory stages. Mountaineering, like so many other things, has become a fashion with many who don't really care about it; and the mountains have taken a terrible revenge.'

What, then, are the conclusions to be drawn? Surely my readers will already have done so for themselves. Mountaineering is extremely dangerous in the case of incapable, of imprudent, of thoughtless men. But I venture to state that of all the accidents in our sad obituary, there is hardly one which need have happened; there is hardly one which could not have been easily prevented by proper caution and proper care. Men get careless and too confident. This does not matter or the other does not matter. The fact is, that everything matters; precautions should not only be ample but excessive.

> The little more and how much it is,
> And the little less and what worlds away.

Mountaineering is not dangerous, provided that the climber knows his business and takes the necessary precautions—all within his own control—to make danger impossible. The prudent climber will recollect what he owes to his family and to his friends. He will also recollect that he owes something to the Alps, and will scorn to bring them into disrepute. He will not go on a glacier without a rope. He will not climb alone, or with a single companion. He will treat a great mountain with the respect it deserves, and not try to rush a dangerous peak with inadequate guiding power. He will turn his back steadfastly upon mist and storm. He will not go where avalanches are in the habit of falling after fresh snow, or wander about beneath an overhanging glacier in the heat of a summer afternoon. Above all, if he loves the mountains for their own sake, for the lessons they can teach and the happiness they can bring, he will do nothing that can discredit his manly pursuit or bring down the ridicule of the undiscerning upon the noblest pastime in the world.

Fatal Accidents in the High Alps, 1856–1882.

Date	Travellers	Guides	Where Accident occurred	Remarks
1856. July . .	Ed. de la Grotte . .	—	Findelen Glacier, Zermatt	Fall in crevasse; party insufficiently roped.
1860. August 15 .	Mr. J. M. Rochester . Mr. F. Vavassour Mr. B. Fuller	F. Tairraz . . .	Col du Géant . . .	Avalanche of fresh snow; party insufficiently roped.
1863. August 7 .	—	Porter, name not recorded (with F. W. Jacomb and Chater)	Saas side of Fletschjoch .	Fall in crevasse; insufficiently roped.
1864. February 28.	M. Boissonet . . .	J. J. Bennen . . .	Haut de Cry . . .	Avalanche; ignorance of the state of winter snow.
1864. August 9 .	—	Ambroise Couttet (with two Austrian gentlemen)	Mont Blanc (Grand Plateau)	Fall in crevasse; unroped.
1865. July 14 .	Lord F. Douglas . . Rev. Chas. Hudson Mr. D. Hadow	Michel Croz . . .	Matterhorn . . .	Slip on rocks.
1865. July 18 .	Mr. Knyvett Wilson .	—	Riffelhorn . . .	Fall on rocks traveller alone.
1865. July 27 .	—	Porter, name not recorded (with H. J. and J. F. Bailey)	Monte Rosa . . .	Avalanche.
1865. August 23 .	Herr Hüpner . . .	Eugène Imfanger . .	Titlis	Slip on snow; party consisted of two persons only.

1865. August 31 .	Herr Hinsch . . .	—	Gross Venediger . .	Fall in crevasse; no rope.
1865. August 31 .	Mr. W. G. Watson . .	—	Windacher Ferner (Tyrol)	Fall in crevasse; no rope.
1866. August 23 .	Mr. Bulkeley Young .	—	Mont Blanc . . .	Slip on snow; no guides.
1866. October 13 .	Captain Arkwright . .	Michel Simond . .	Mont Blanc (Ancien Passage)	Avalanche; bad guiding.
		François Tournier		
		Joseph Tournier		
1868. July 27 .	Colonel Pringle . .	—	Creux d'Enfer, near Bex .	Slip on rocks; alone.
1868. August 29 .	Count Louis de Cambacérès	—	Glacier du Trient . .	Unroped; two persons only.
1869. July 27 .	Rev. J. M. Elliott . .	—	Schreckhorn . . .	Fall on rocks; no rope.
1869. September 15	Mr. Chester . . .	—	Lyskamm . . .	Fall on ice; probably unroped.
1870. August 2 .	Mrs. Geo. Marke . .	Olivier Gay . . .	Mont Blanc . . .	Fall in crevasse; unroped.
1870. September 6.	Mr. Randall . . .	Jean Balmat . . .	Mont Blanc (Mur de la Côte)	Furious storm; climbing in bad weather; probably bad guiding.
	Mr. Mac Corkendale	Joseph Breton		
	Mr. Beane	Edouard Simond		
		Auguste Couttet		
		Auguste Cachat		
		Ferdinand Tairraz		
		Alphonse Balmat		
		Johann Graf		
1871 . . .	Herr F. Bodmer . .	—	Piz Tschierva . . .	Fall in crevasse; traveller alone.
1872. July 24 .	Herr Von Allmen . .	Johan Bischoff . .	Jungfrau (Roththal Sattel)	Avalanche.

Fatal Accidents in the High Alps—continued.

Date	Travellers	Guides	Where Accident occurred	Remarks
1873. June	Rev. B. Marriott	—	Near Pontresina	Fall on rocks; traveller alone.
1873. September 14	Professor Fedchenko	—	Col du Géant	Exposure; incompetence of guides.
1874. August 31	Mr. J. A. G. Marshall	Johann Fischer	Mont Blanc (Brouillard Glacier)	Fall in Schrund; midnight.
1875. August	—	— Antille	Triftjoch	Slip on rock; unroped.
1875. September 2.	M. Brunker	—	Upper Grindelwald Glacier	Slip on ice; alone.
1876. August 28	Mr. Johnson Mr. Hayman	Franz Sarbach	Felik Joch	Avalanche and exposure; climbing in a fog.
1877. June 7.	M. Henri Cordier	—	Near Glacier du Plaret (Dauphiné)	Fall in torrent under snow; unroped.
1877. August 20	—	Porter (name not recorded)	Col de Miage	Avalanche; unroped.
1877. September 6.	Mr. W. A. Lewis Mr. Noel H. Patterson	Niklaus Knubel Peter J. Knubel Johann Knubel	Lyskamm	Fall from cornice.
1878. July 29	Herr Reuter	—	Salève(?), near Coire	Slip on rock; two travellers only.
1878. August 18	Dr. Sachs Herr Heinitz	Jos. Reinstadtler — Züschg	Monte Cevedale	Slip on snow; and fall in crevasse.

1879. August 14 .	Dr. W. O. Moseley . .	—	Matterhorn . . .	Fall on rocks; unroped.
1879. August 15 .	—	Jos. Brantschen . .	Matterhorn . . .	Exposure (?).
1879. August 18 .	Mr. Forrester . . .	—	Diablerets . . .	Fall on ice; no guide.
1879. August 18 .	Dr. Carl Foelts . .	—	Taufig (Styrian Alps) .	Fall on rocks; alone.
1879. September 14	M. Melley . . .	—	Ganterist . . .	Fall on rocks; alone.
1880. July 18 .	Dr. A. Haller . . .	Peter Rubi . . . F. Roth	Lauteraarjoch . . .	Fall in Bergschrund.
1880. July 25 .	Herr Welter . . .	—	Neveser Ferner . .	Fall in crevasse; unroped.
1881. August 8 .	Signor D. Marinelli . .	F. Imseng . . . B. Pedranzini	Monte Rosa (Macugnaga side)	Avalanche.
1881. August 18 .	Mdlle. Dupré . .	—	Glacier du Mont de Lans (Dauphiné)	Climbing in bad weather; cold and exposure.
1881. September 4 .	Mr. H. Latham . .	—	Bussalp (Grindelwald) .	Avalanche; alone.
1882. July 19 .	Professor F. M. Balfour, F.R.S.	Johann Petrus, . .	Mont Blanc (Aiguille Blanche de Peuteret)	Slip on rocks; two persons only in the expedition.
1882. August 3 .	Mr. W. Penhall . .	And. Maurer . . .	Wetterhorn . . .	Avalanche; two persons only in the expedition.
1882. August 12 .	Mr. W. E. Gabbett . .	J. M. Lochmatter . . — Lochmatter	Dent Blanche . . .	Slip on rocks.
1882. August 15 .	Herr v. Rütte . . .	—	Dündengrat (Blümlis Alp)	Slip on rocks; two persons only in the expedition; no guides.