

carried on the blood becomes thick and circulates with difficulty. The flow may even be entirely interrupted, especially in the brain; death is then instantaneous.' We do not know on what grounds this view of the pathology of heat-stroke is put forward. It appears to be a new one, and will hardly be generally accepted as correct. But the advice with regard to treatment is simple and sensible, though more stress might, perhaps, be laid on the necessity for profuse wetting with cold or, better still, iced water in cases of unconsciousness from sunstroke.

The definition of mountain sickness, as occurring only when climbing mountains of 10,000 ft. or upwards, is curious, for many people suffer from it at a considerably lower elevation.

The last section of the book, on transport and transport materials, is altogether excellent. It is full of practical suggestions for the best method of transporting injured persons, according to the circumstances under which they have met with their accident. The illustrations are numerous and clear, and should enable any climber to make the most of the resources at his command. How necessary it is to avail oneself of any advantage in transport that experience has dictated is best known to those who have been obliged to get a wounded man down a mountain-side, especially if there be no path and only a few men available. They will then wish they either had Dr. Bernhard's excellent little book with them or at least that they had made themselves thoroughly familiar with its contents.

#### ALPINE ACCIDENTS IN 1897.

A SECOND season of bad weather in the Alps has been marked by a number of accidents exceeding the record of any previous year. To one feature in this long catalogue we think prominence should deservedly be given. No member of our Club is found upon the fatal list, and of the two Englishmen who died in the Alps one was a lad of 16, who was taken by his Swiss tutor on an ascent, without guides, of the Mont Pleureur (12,159 ft.), obviously an exacting task for one of such years; while the other, Mr. Cooper, an elderly man, disappeared in a way with which climbing had plainly nothing to do.

In this connection, though we do not forget the calamities of past years, nor pretend that the risks of mountaineering can be altogether eliminated by any amount of care and foresight, we may fairly point with satisfaction to the obvious result of the advice of the leading English climbers, past and present, who have steadily set their faces against the tendency to depreciate and disregard the dangers of the mountains—a tendency which has unhappily been but too common in some quarters.

It would be tedious and unprofitable to give details of the numerous catastrophes, Alpine and sub-Alpine, which have been chronicled in Continental papers. One statement we reproduce. The 'Journal de Genève' of September 7 states that up to that date

134 persons had been killed in Switzerland, on mountains great or small. We shall notice only the fatal accidents above the snow-line, and such others as seem to call for comment for some special reason.

TABLE OF CHIEF ACCIDENTS IN 1897.

Date	Name	Place	Lives Lost	Cause
June 18	R. Schmidt . .	Zugspitze . .	One	Probably slip
July 18	F. Occhiena . .	Rocca Bernauda .	One	Probably slip
Aug. 6	Descaldi . .	Morteratsch Glacier	One	Jumping crevasse
Aug. 15	Bernard . .	Koche Melon . .	One	Fall into crevasse
Aug. 26	Andreas Anderegg ; Johann Anderegg ;	Jungfrau . .	Two	Avalanche
Sept. 1	Gonin De Mollins Bischoff Swinstead	Mont Pleureur .	Four	Avalanche

## ACCIDENT ON THE JUNGFRAU.

We take from the columns of the 'Alpina' of October 1 the following account of the Jungfrau accident, which was written by Mr. Andreas Fischer, late of Grindelwald, and originally appeared in the 'Bund':—'Herr Simon Bein, of Frauenbrunn, Saxony, and the guides Andreas and Johann Anderegg had gone from Grindelwald to the Bergli Club hut, with the intention of ascending the Jungfrau (other parties were at the hut for the same purpose) by the ordinary well-known route over the Mönchjoch. New snow lay high up: in such circumstances the expedition seemed dangerous, and even on the Mönchjoch the leading guide, Andreas Anderegg, expressed doubts about the expedition. "The avalanche," said he, "might seize us on the Jungfrau." He well knew the tricks which the snow plays. He was, as everybody knows, a son of Melchior, and had been trained by that distinguished master. Better training could not be. He had enjoyed the highest reputation for many years, and was as well known in Chamonix, Courmayeur, and Zermatt as in the Oberland, and liked everywhere for his courteous and pleasant character. He had inherited from his father, along with caution and prudence, the firm will which insists on return when return is advisable. This trait appeared even in his last expedition, for when, as the party advanced, the condition of the snow proved to be really dangerous, the ascent was abandoned. The little party turned to the left to descend along the (false) Kranzberg to the Concordia hut. "I have passed that way between fifty and a hundred times," said old Melchior. This route was commonly regarded as safe. Here, however, the blow fell. The travellers stepped on a *Schild*—that is to say, the snow-surface on which they were standing broke loose above them in a wide curve, with a dull cracking sound—the avalanche had started and immediately carried away the unfortunate climbers.

'A second more numerous party had followed, at no great distance. The first man in it was also carried off, but his companions held him up. They at once set to work to rescue those who had disappeared in the snow. Mr. Bein was not completely buried, and was still alive. The two guides were got out in half an hour, both dead. Johann Anderegg's neck was broken; Andreas showed no injuries, he had been suffocated.

'Three of Andreas's brothers who were at Zermatt (one received the news at the Monte Rosa hut) hurried to the Eggischhorn, and met the sad procession on the Aletsch Glacier.

'Old Melchior, with another of his sons, had just ascended the Wetterhorn with Mr. C. E. Mathews, whose guide he has been for so many years. They learnt what had happened on their return to Grindelwald.

'At the funeral, which took place on Saturday, August 29, at Meiringen, the widest and most profound sympathy was shown.

'Andreas Anderegg leaves a widow and two small children. Johann, the younger, was the only support of his aged mother. He had but recently adopted the profession of guide.'

The appeal of Mr. C. E. Mathews for subscriptions in aid of the relatives of the two guides has been very liberally responded to, as will be seen from the slip inserted in this number.

#### ACCIDENT ON THE MONT PLEUREUR.

We take the following description from the 'Alpina' of October 1. It is condensed from the narrative of M. Ritz, one of the members of the first of the two parties:—

'On September 1 seven travellers and a porter started for the Liapay Alp to make the ascent of Mont Pleureur. About 6.30 they divided into two parties of four each, the first consisting of three pupils of the Lycée of Sion, MM. Ritz, Zimmermann, and Delaloye, and the porter Bournissen, the second of M. Gonin, *pasteur à Sion*, M. Bischoff, a young Englishman, Mr. Swinstead (both of them were living *en pension* with M. Gonin), and M. de Mollins, who acted as leader. The second party followed the first at a sufficient distance to be out of reach of the pieces of hard snow sent down by step-cutting.

'When we [the first party] had arrived at a certain height and saw how good the snow was, we shouted to them that we were going to climb La Salle on the way, and to follow the ridge which connects it with Mont Pleureur. "All right," one of them replied. A few minutes afterwards we reached the highest rocks of La Salle, giving a very steep couloir on our left a wide berth. Whilst at breakfast on a rocky platform we suddenly heard a dull sound which seemed to come from below us. We got up and rushed to the edge of the precipice just as our companions disappeared in a whirlwind of snow and stones in the giddy couloir which we had just avoided.

'The party at once descended and discovered that instead of

following their traces or passing above them M. de Mollins and his companions had made a traverse below them, no doubt trusting to the excellent state of the snow, which would not have suggested to anyone the fear of an avalanche. M. de Mollins was distant only a few centimètres from the rocks when the snow broke away in an avalanche. An axe and alpenstock driven into the couloir showed what efforts the unfortunate party had made to save themselves. Below the snow, already several days old, which had detached itself there appeared another older layer, but of exactly the same consistency as the more recent, a fact which had made it impossible for us to take cognisance of the risk which we had evidently run.

'It was now about 9.30. After a very anxious descent of 2 hrs. the party reached the Landerey Glacier. Three of them then hastened towards the spot where the couloir came to an end above a wide crevasse. There they saw two of the victims half buried in the snow. No doubt remained as to the fate of their friends; but notwithstanding this they were anxious to reach them, when another avalanche poured down the fatal couloir. It was now midday. At 6.30 they reached the Mayens de Sion, and at 10.30 a caravan started for the scene of the accident, accompanied by the porter Bournissen, who, in spite of the fatigue he had undergone, acted as leader. The bodies of MM. Gonin and Bischoff and of Mr. Swinstead were found the next day in the snow of the avalanche, which had filled up two-thirds of the crevasse.

'The funeral took place amidst every token of respect at Sion on Sunday, September 4. The body of M. de Mollins has not yet been recovered.'

#### OTHER ACCIDENTS.

The traveller who was killed in the Zugspitze accident had made the ascent before. The party consisted of two only, and had apparently suffered a good deal from cold. A full account of the loss of Sig. Occhiena on the Rocca Bernauda will be found in the 'Rivista' of the C. A. I. for July. When the accident happened there were but two travellers together, unroped, and one of them had no ice axe. In the Morteratsch Glacier accident the tourist seems to have had himself to blame. He jumped at a crevasse and fell in.

The Roche Melon mishap is described at length in the 'Revue Alpine' for September. A party of five French artillerymen had reached the summit of that mountain, when ten or twelve Italian *carabinieri* came out of the chapel, which stands on the top, and made for them. The artillerymen, in their surprise, ran back, and Bernard, a sergeant, fell into a crevasse. One of the others, by name Thermignon, who knew the mountain, shook himself free of his captor, shouted to his sergeant to change his direction, but too late, and then rushed after him. He too fell into the crevasse, but, recognising that his friend was dead, left a piece of paper to mark the spot, and with much courage made his way to the Chalets de l'Arselle. The body was recovered with great difficulty two days

later in the presence of the captain of Bernard's battery, and of MM. Guy de Valence and A. Chambre, the French climbers, who had kindly lent their guides. The guides, Auguste Clapier and his brother, Louis Faure, and Joseph Amiez, are highly praised for their conduct.

In an accident on the Hochswab a party left an exhausted companion alone while they continued on their way to the hut; they then sent a guide to him, who assisted him some distance further, left him again exhausted, and returned to the hut. When he went back with help the unfortunate traveller had disappeared. The body was not found till three days later. Of the two experienced travellers who had so narrow an escape on the Schreckhorn one had lost his axe, and so was unable to hold up his companion, who was descending in front of him. The large guideless caravan on the Grosser Buchstein, when Herr P. Goudet, of Geneva, was killed, were roped in parties of two each. A party descending from the Mönchjoch to the Eggischhorn were unroped; the guide, with the rope coiled up on his back, was examining a snow-bridge. It broke under him, and he fell into the crevasse. He was rescued with difficulty. Can it be wondered that accidents happen?

The moral is, as it has so often been before, that no precaution ought to be neglected, especially in a bad season. No party should attempt an ascent such as will be a severe tax on their powers unless they have the necessary experience, are in proper numbers, and, should they not be accomplished climbers, are attended by trustworthy guides. No traveller should be left alone when exhausted. In the case of treacherous snow, when an experienced guide is of the party, his opinion should be asked, and if he is doubtful as to the prudence of the ascent the expedition should be abandoned. For glacier expeditions less than three is not a party. We all deeply regret that the mountains have claimed so many victims in 1897, but it is clear that needful precautions have been, one might almost say, consistently neglected, otherwise the black list would have been much shorter. We may quote again the lines once so aptly cited by a former President of the Club:—

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

No doubt there are accidents in the proper sense of the word, but we think it is clear that, had due care been exercised, the large majority of so-called accidents of the present year would never have happened.

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## ALPINE NOTES.

A FORTHCOMING BIBLIOGRAPHY OF TRAVELS IN SWITZERLAND.—Our readers are doubtless aware that the Swiss Federal Government has undertaken the publication (through K. J. Wyss, of Bern) of a most elaborate Bibliography relating to Switzerland in all its