

annual flood, but watchfulness will always be required. Attached to the next article is an interesting plate from a drawing made by an inhabitant of Vevey on May 16, 1818, showing the glacier of Giétroz and the lake formed behind it. The outburst took place on June 18.

Professor F. A. Forel (Morges) and M. Lugeon (Lausanne), with Inspector E. Muret (Morges), describe some interesting experiments with colouring matter on the glacier streams. On August 22, at 8.30 A.M., they put two kilogrammes ($4\frac{1}{2}$ lbs. Av.) of fluorescine (?) into a stream on the right bank of the glacier at the foot of the great lateral moraine above the icefall. This stream entered a glacier pit. At 9.15 they observed as they descended a jet of coloured water issuing from the ice. At 9.40 the main glacier stream became coloured at its exit, and it remained coloured until 10.30. The horizontal distance between the points of entrance and exit was estimated at 1 kilomètre, and the difference in altitude at 1,640 feet. The coloured water reached the hotel at Gletsch at 10 A.M., and was observed at Riddes (65 miles lower down) on August 26, at 5.30 P.M. Of the 70 glaciers observed in 1898 45 were still retreating; 5 certainly advancing; the others doubtful or stationary.

There are many complaints made of the Matterhorn Hut, which the Monte Rosa section will neither repair nor allow to be put in charge of another section. The new Cabane de Neuchâtel on the Clocher du Bertol (Arolla) is the highest of the Club huts, being 11,280 feet above sea level. The old Matterhorn Hut was 1,200 feet higher.

Attached to this volume is a case containing a pamphlet by M. Emil Courvoisier, on the Club Huts (there are now 54 in number, 6 being new in 1898), and a map of the Ofen Pass district. In December 1898 the number of members of the S.A.C. was 6,148, and the balance to the credit of the Club was 1,024*l.* J. S.

PROCEEDINGS OF THE ALPINE CLUB.

THE ANNUAL GENERAL MEETING of the Club was held in the Hall on Monday evening, December 11, 1899, the Right Hon. James Bryce, *President*, in the chair.

The following candidates were balloted for and elected members of the Club: Messrs. J. C. Atkinson, A. A. Booth, W. J. Clark, W. Douglas, G. W. H. Ellis, H. G. S. Lawson, C. M. Mathews, M. K. Smith, R. H. Warren, jun.

The PRESIDENT announced that Dr. von Zittel, of Munich, had been elected by the Committee as an honorary member of the Club.

On the motion of Mr. C. E. MATHEWS, seconded by Mr. MORTIMER, the Right Hon. James Bryce was unanimously re-elected President for the ensuing year.

On the motion of Mr. R. H. ROBERTSON, seconded by Mr. G. CHATER, MESSRS. E. A. Broome and W. Pickford were unanimously

elected members of Committee in place of Mr. Norman Collie and Dr. C. Wilson, whose term of office expires.

On the motion of Mr. H. B. GEORGE, seconded by Sir F. POLLOCK, the Vice-Presidents, the other members of the Committee, and the Honorary Secretary being eligible, were unanimously re-elected.

The Hon. SECRETARY then read the following statement with reference to the re-publication of Ball's 'Alpine Guide.'

'The Committee have to report that the General Introduction to Ball's "Alpine Guide" was published in June this year, under the title "Hints and Notes for Travellers in the Alps."

'Mr. Coolidge has thrown all his accustomed energy into the difficult task of the revision of this introduction, and has produced a most interesting volume, which happily combines such of the original writing of Mr. Ball as it was possible to retain with the large amount of new material which the progress of mountaineering has made it necessary to introduce. At the same time Mr. Coolidge has been keeping in view Vol. II. of the Guide, and has already amassed a considerable amount of material for its completion.

'He has just informed the Committee that he hopes to have two-thirds of the text of this volume ready for the printers at the worst by June next year, and that if his health enables him to continue the work at the same rate, he anticipates the completion of the text next autumn.

'One of the two new district maps is nearly ready for the lithographer, and the other will be taken in hand at the same time as the text of the section (the Ortler). The remaining district maps being reproductions, with a few alterations, of the Alpine Club map, are not a serious difficulty. The general map will be a reproduction of the old general map in Vol. II., with alterations to bring it up to date. Mr. Coolidge would be glad if any member familiar with the Bernina district in recent years would communicate with him on the question of furnishing him with information.

'The question of the publication of Vol. III., which was mentioned at a meeting in summer, has been referred to a sub-committee with an instruction to inquire into the probable cost and to endeavour to find an editor who would be willing to undertake the work. When this has been ascertained, the important matter of ways and means will be again brought before a General Meeting of the Club.

'The Ball accounts may be summarised as follows:—

| <i>Receipts.</i> | | | | <i>Expenditure.</i> | | | |
|---|--------|----|----|----------------------|--------|-----|----|
| | £ | s. | d. | | £ | s. | d. |
| Subscriptions . . . | 1,018 | 12 | 2 | On Vol. I. | 1,025 | 16 | 8 |
| Interest | | 55 | 9 | Introduction | | 72 | 1 |
| Nett amount received on sales of Vol. I. . . . | | 91 | 19 | Balance | | 114 | 2 |
| Estimated amount on further sales to date of both Vol. I. and of General Interest . . . | | 46 | 0 | | | | |
| | £1,212 | 0 | 6 | | £1,212 | 0 | 6 |

After hearing this statement the Meeting unanimously passed a hearty vote of thanks to Mr. Coolidge for his great and successful labours in bringing out the first volume and the General Introduction of the 'Alpine Guide.' In these thanks were included those numerous helpers, both members and non-members, who had given such valuable assistance to the Editor.

The PRESIDENT added that, if the Club thought it desirable to bring out the third volume, any member who knew the Eastern Alps would greatly assist by communicating with the Committee with a view to rendering assistance.

A cordial vote of thanks was also accorded to Mr. G. P. Baker for the work done by him in arranging the Equipment Exhibition and compiling the catalogue.

The PRESIDENT intimated that Sir Martin Conway had presented to the Club a wooden ice axe used by natives in the Himalayas.

The PRESIDENT then said: We have had the misfortune to lose several members during the past year. Among these were Mr. F. C. Hulton, an old member of the Club, known to many members as a true and loyal friend. Mr. Stafford Still had been a very zealous mountaineer, never letting a season pass without visiting the Alps. He was endeared to everyone by his courteous manner and by the warmth of his heart. I will not speak of the accident on the Dent Blanche—a matter of great sadness to us all—except to refer to the fortitude shown by the survivor, Mr. Hill, who found his way down alone, passing two nights on the mountain, and being 48 hours without food.

I have also to mention that a New Catalogue of the Club Library has been prepared, which may be obtained by members and others at the price of 3s. Much labour has been given to its preparation by the honorary and assistant librarians, to whom the Club, I am sure, will express their thanks.

Major BRUCE then read a paper on 'Mountaineering in the Himalayas,' which was illustrated by lantern slides.

Sir MARTIN CONWAY remarked that Major Bruce was the only man who knew that part of the Himalaya well. What he had done in training the Ghoorka troops was very important, as he had trained many for work above the snow-line.

Mr. NORMAN COLLIE spoke very highly of the Ghoorka as a climber and as a guide. He wished to express his warm appreciation of the trouble Major Bruce had taken in obtaining servants for Mr. Mummery and himself—he had spent two out of six weeks' leave in finding them good servants, which is one of the most important matters to attend to in Himalayan expeditions.

Mr. HASTINGS also wished to express his thanks to Major Bruce.

Mr. CHEETHAM asked about the height at which mountain sickness was experienced, and Major BRUCE replied that when in good health he did not suffer under 20,000 ft., though when out of condition he had felt discomfort at a much lower level.

The PRESIDENT said it was a matter of satisfaction to have such men as the Ghoorkas among our loyal subjects. Snow work was not required to be done on the Himalaya by troops as on the French and Italian Alps, where men were trained in glacier work. He had greatly enjoyed Major Bruce's paper, and proposed a cordial vote of thanks to him.

This was heartily accorded and the proceedings terminated.

An Exhibition of Alpine Equipment arranged by the Committee with the assistance of Mr. G. P. Baker was held in the Club rooms from December 2 to 23. Refreshments were provided on the afternoons of December 2 and 12. About 1,200 persons attended the Exhibition.

The Winter Dinner was held at the Whitehall Rooms, Hôtel Métropole, on Tuesday evening, December 12, when 269 members and guests were present; the latter including Sir Courtenay Boyle, Sir Alexander Binnie, Professor Henrici, Dr. Schuster, Mr. Moon, M.P., Major Moore, Colonel Selby Smyth, Canon Pelham Burne, Mr. T. R. Warrington, Q.C., Dr. Mitchell Bruce, and Mr. Warrington Hayward.