Boval Hut, with the intention of climbing the Piz Bernina (13,295 feet) next day. We arrived at the Boval Hut at 5.15 P.M., having taken exactly three hours to go up the Morteratsch glacier. I left the hut with Andreas and Anton Rauch at 4 A.M. on January 18, after bidding my wife good-bye. She was able to watch our movements with a telescope most of the day. For the first three hours we advanced over the soft snow and glacier with lanterns. Just before daybreak a slight accident occurred to the younger Rauch, who was leading. He fell into a deep crevasse with no note of warning, and was only extricated after 50 minutes had passed. His presence of mind in retaining hold of his ice axe and setting about to help himself at once was most praiseworthy and lessened the danger considerably. We continued at once, as time was precious, gaining the summit at 1.15. We could only remain there 15 minutes. The view was superb on all sides, the sky cloudless and the sun brilliant. We examined the Piz Roseg from the Bernina summit, as I also thought of attempting this some day later, but its sides were so steep and slippery with smooth ice that my guides did not care about it. We effected the descent quickly, being back in the hut at 5.40 P.M.: 4½ hours from Berninagipfel to Bovalhütte. I have only to add that I found the ascent of the Piz Bernina in winter quite as enjoyable and very little colder, though more toilsome and dangerous, than the ascents of, *e.g.*, the Finsteraarhorn, Wetterhorn, and Gspaltenhorn, which I climbed last September.'

CORRESPONDENCE.

THE WATKIN ANEROID IN MOUNTAIN MEASUREMENTS. (CONCLUSION.)

To the Editor of the ALPINE JOURNAL.

SIR,—May I be permitted to reply once again to the renewed criticisms contained in the rejoinder by Mr. Freshfield in the November 'Alpine Journal,' p. 347.

Mr. Freshfield asserts that I persist 'in the attempt to represent Mr. Graham's heights as doubtful altitudes.' I answer, Mr. Freshfield's zeal in behalf of his contention for Mr. Graham leads him to persist in misinterpreting the application of my remarks. Will he explain how one can persist in an attempt which has not been made? The only two altitudes ascribed to Mr. Graham which I have characterised as doubtful, or even mentioned (see pages 83 and 345), are those attained on A. 22 and Dunagiri, as quoted by Professor Collie, the summits of which peaks, as I understand the quotation, were not reached. May I ask Mr. Freshfield to cite any other ascents by Mr. Graham to which I refer as being of doubtful altitude?

He also says, 'In the large majority of that climber's ascents they

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are heights calculated trigonometrically?' Where trigonometrically calculated peaks are fully ascended, it is self-evident there would be no question as to the heights reached. In case of those not fully ascended, the fact that the peaks themselves have been trigonometrically fixed is just as evidently of no account, since this would not save estimated heights attained on them from the suspicion of not being accurate. Would Mr. Freshfield, for 'the advantage of your readers,' and among them myself, kindly name the instances composing the 'large majority' of Mr. Graham's ascents in which he reached the summits of peaks trigonometrically calculated?

Mr. Freshfield again says I assume 'that Mr. Graham and his guides were non-enduring.' Will he quote the passage in which I assume this? I consider my remarks on mountain sickness (page 345) sufficiently explicit to indicate to the average reader that they are directed, not against Mr. Graham and his guides, but against Mr. Freshfield's method of reasoning.

Mr. Freshfield's explanation of the grounds on which he bases his 'impression' about aneroids does not improve his position. Apparently in support of this, he states that my paper 'had first been offered to the editor of the "Journal of the Royal Geographical Society," who had not accepted it in its then form,' thus giving to the public what should have remained a matter of editorial confidence, which seems in some way to have come to his knowledge.

If he considers it proper to publish information of this character, which certainly does not concern him, and has no value whatever in support of his impression about aneroids, why did he not tell the whole story? He having failed to do so, I will tell it for him, viz., I handed the paper in question, in the exact form and wording in which it appeared in the 'Alpine Journal,' to the editor of the 'Geographical Journal,' asking him to read it over and see if he would consider it within the scope of the latter journal. He duly reported that it was rather long as there was much material pressing for publication, but if I would 'condense' (not alter) it he would use it. As I considered that condensation would deprive it of a part of whatever value it might have, I declined to do this, and sent it to the editor of the 'Alpine Journal.' Shortly afterwards, while in Paris, I received a letter from the editor of the 'Geographical Journal,' requesting the paper for publication.

The question of the value of the aneroid is not to be settled by the *ipse dixit* of any man, but only by the accumulated evidence of carefully controlled observations in actual field service.

I am yours obediently,

WILLIAM HUNTER WORKMAN.

To the Editor of the ALPINE JOURNAL.

SIR,—I trust that Dr. Hunter Workman will not impute to me any discourteous intention if I decline his invitation to go over again ground that has been already well beaten in these pages. On his return to Europe Dr. Workman will find in the past

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volumes and numbers of the 'Alpine Journal' the basis of my recent statements and the answers to most of his enquiries, including that as to the triangulated peaks climbed by Mr. Graham.

I may note, however, that the heights assigned to some of these peaks in Mr. Graham's paper and quoted by Dr. Norman-Collie have been corrected. When Mr. Graham's paper was published in 1884 the final results of the survey of Sikhim were not accessible in this country (see vol. xii. p. 57).

With regard to the merits of aneroids, I was compelled by Dr. Workman's challenge to quote the opinion of the staff of the Royal Geographical Society, of which I have the honour to be a vice-president. The matter, however, is one on which we all agree that further discussion must prove profitable. Every traveller's results deserve record. But it seems to me, as it seemed to Dr. Keltie, inconvenient to generalise on the result of any one man's observations. It was in this sense—by eliminating generalisations and confining himself to individual experiences—that Dr. Workman was invited to 'condense' his paper.

With the last sentence of his last letter I am glad to find myself in most cordial agreement.

I am yours obediently,
DOUGLAS W. FRESHFIELD.

PROCEEDINGS OF THE ALPINE CLUB.

THE ANNUAL GENERAL MEETING of the Club was held in the Hall on Monday evening, December 17, 1906, the Bishop of Bristol, *President*, in the chair.

The following candidates were balloted for and elected members of the Club: Messrs. J. Buchan, F. S. Goggs, T. E. Goodeve, S. L. King, C. E. Montague, W. F. O'Connor, H. W. Prichard, G. Thomson, G. F. Travers-Jackson, and C. A. Werner.

The PRESIDENT declared the following officers and elective members of Committee for 1906 duly elected: Mr. G. W. Prothero, Vice-President, in the place of Mr. J. H. Wicks, whose term of office expired; Messrs. T. G. Longstaff and Howard Barrett as new members of Committee in the place of Messrs. L. W. Rolleston and J. J. Withers, whose term of office expired.

The President, the Vice-President (Mr. Wm. Cecil Slingsby), the Honorary Secretary and the other members of Committee (Captain J. P. Farrar, Messrs. H. V. Reade, H. Priestman, Alfred East, R. A. Robertson, and C. H. R. Wollaston), being eligible, were re-elected.

On the motion of Dr. G. H. SAVAGE, seconded by Mr. F. A. WALLROTH, Messrs. J. H. Rolland and R. L. Harrison were elected Auditors.

The PRESIDENT mentioned that the Club had lost a distinguished member in Mr. G. C. Churchill, F.R.S., a well-known botanist and

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