CORRESPONDENCE.

HIGH ALTITUDES.

To the Editor of the ALPINE JOURNAL.

DEAR SIR,—Mr. Freshfield's view regarding *mal de montagne*, which I ventured to criticise in my letter, is still original, in spite of his reply in the May number of the 'Journal.'

I, also, am well aware of Mr. Dent's conclusions with reference to Mount Everest, and I entirely agree with him; but Mr. Dent has never said, so far as I know, that *mal de montagne* may at some future time be *disregarded*. Mountain sickness must be *treated* if Mount Everest is to be ascended, and the treatment, in my opinion, is by the inhalation of oxygen.

As to the 'time-honoured' phrase 'rarity of the air,' the sooner this loose use of the expression is discarded by those who wish to study and avoid the symptoms resulting from it the better, and the sooner shall we arrive at some satisfactory form of treatment.

Sir W. Martin Conway says, in his letter in the May number, 'These effects (at high altitudes), in their mildest as in their severer forms, in no wise resemble the effects of fatigue. They differ from fatigue in kind.'

In Dr. Pavy's paper in the 'Lancet,' 1876, where he describes his experiments on two great walkers, Perkins and Weston, under the title of 'The Effect of Prolonged Muscular Exercise on the System,' we find that one of the walkers (Perkins), after accomplishing 65½ miles at about 4½ miles an hour, had to give in on account of fatigue, which showed itself in the following symptoms: a tired feeling in the limbs, rapid, feeble, irregular pulse, general malaise, slight rise of temperature (not always constant), and vomiting. I cannot help thinking that these symptoms very much resemble those of mountain sickness; in fact, to my mind they are practically the same, with the addition of vomiting.

I apologise most unhesitatingly to 'the writer of the article in the "Edinburgh Review"' for accusing him of inaccuracy in the way I did. I very much regretted the wording of that part of my letter long before it appeared in the 'Alpine Journal'. Partly from being compelled to write my letter hurriedly, and partly from being concerned more particularly with the laboratory and aeronaut experiments, I did not refer to, nor had I read, the passage in M. Paul Bert's book which he reminds me of, and therefore had no right to make such a statement; besides which it was not necessary, since my criticism of M. Bert's experiments has the same significance without it.

I am, Sir, your obedient servant,

MALCOLM L. HEPBURN.

Lowestoft, July 11, 1898.

SIR,—Dr. Hepburn's last letter is largely concerned with phraseology.

I do not quite know what the 'symptoms resulting from' 'the

loose use of an expression' may be! But let this pass. My reason for thinking it premature to search for a substitute for the phrase 'rarity of the air' is very simple. Until doctors, or physiologists, know more accurately than they do now what we are all talking about any new form of words they may invent must be more or less vague and unscientific, and, therefore, more or less of a fraud and a snare to the unwary. 'Rarity of the air' is at any rate English, which is more than can be said for 'mal de montagne.' That expression has hitherto covered many symptoms for which the mountains were only in a minor degree responsible. Dr. Hepburn now proposes to use it in a novel and restricted sense, for sufferings for which, from his point of view, a more exact definition would seem to be desirable.

Dr. Hepburn's main argument—I should, perhaps, rather say, standpoint—is, I confess, not quite clear to me. But he appears to define the 'true mountain sickness' (p. 163) as an indisposition, caused by a deficiency of oxygen in the atmosphere, and only felt at heights of over 17,000 ft. Though Sir Martin Conway asserts the contrary, he 'cannot help thinking' its symptoms closely resemble those of over-fatigue.

This view is not only original, but, I believe, unique. By his audacious limitation Dr. Hepburn dismisses at once all the *Alpine* experiences and experiments of travellers and men of science, and excludes any evidence I might myself have given that the sickness I have seen or felt on mountains in no way resembled the results of fatigue, but rather those of indigestion. For on the one occasion on which I have been over 17,000 ft. (up to 18,400 ft.) none of my party suffered at all from any kind of sickness.

Dr. Hepburn now further states, or rather implies, that I have given as my own opinion that "mal de montagne" may at some future time be disregarded.' This citation is an imperfect and inexact summary of my sentence, which he quoted in full in his last letter (p. 162). I am compelled to quote it once more. What I wrote was:—'It is at least open to argument that in the next century persons of good digestion and stolid temperaments, starting in fair training from tolerably comfortable huts or bivouacs, may hope to disregard "the rarity of the air" on any mountain on the face of the globe.' I did not, it will be seen, commit myself to any positive opinion. I did not use the words 'mal de montagne' which Dr. Hepburn substitutes for 'rarity of the air.' I had better, doubtless, since the word has been misinterpreted, have used another expression in place of 'disregard.' But when a man expresses his intention to 'disregard the weather' he is not, I think, generally understood to imply that he will not take a waterproof, or even a whisky flask!

I believe that Mr. Dent's view that Gaurisankar will be climbed is a reasonable one, and should be acted on; but I have myself neither the data nor the authority to assert it as a certainty. It is the view, as far as I can make out, of Dr. Hepburn, provided his treatment, or system of training, which will include oxygen

refreshers, is adopted. Let him by all means test his treatment, and that on no *corpore vili*, but, if not too late, on Sir Martin Conway himself on the Bolivian Andes.

I have written in the desire to further, as far as lies in my power, a full, exact, and fruitful discussion of the whole question. To my own opinion, however, I attach no great importance. As I have often said before in these pages, the researches involved call for physiological experts, who, unlike Dr. Hepburn, are 'concerned particularly' in the matter to be investigated. But they must also be practical mountaineers and patient readers of mountaineering records, as well as of the researches of foreign observers, otherwise their dicta can be of very little scientific value. When the results of Mr. Dent's stay at the Cabane Vallot are given to the world we shall possibly know more than we do at present, and may even be provided with a scientific and final substitute for 'rarity of the air,' which I shall be the first to accept. For I cannot believe that Dr. Hepburn's theory that the human frame is not frequently affected by the condition or composition of the atmosphere at heights under 17,000 ft. will meet with any acceptance among mountaineers or physiologists. I am, Sir, yours obediently,

DOUGLAS W. FRESHFIELD.

Appin, Argyllshire: July 25, 1898.

ALPINE NOTES.

MOUNTAINEERING IN THE ANDES.—We take the following from the 'Daily Chronicle' of July 16:—

'*Mountaineering in the Andes.*—Reuter's Agency is informed that Sir Martin Conway left Southampton by the Royal mail steamer "Don," *en route* for Bolivia, where he intends to explore the high group of the Andes containing the peaks Illimani and Illampu (or Sorate). He is accompanied by the Alpine guides Antoine Maquignaz and Louis Pellissier, who made the first ascent of Mount St. Elias, in Alaska, last year with the Duke of the Abruzzi.'

MONT BLANC BY MONT BLANC DU TACUL AND MONT MAUDIT.—This route is likely to be more often followed in the future, since the Midi hut has been rebuilt and furnished by M. Vallot. And it is obviously the natural route to take from Montenvers. On the first day, instead of the tedious way by the Plan des Aiguilles to the Grands Mulets, you have the séracs of the Géant (always 'interesting' in the ordinary, if not in the special, sense of the word), and then the splendours of the Vallée Blanche, and the wonderful view from the Aiguille du Midi, where you may linger at your pleasure, for the hut can easily be reached in an hour from the summit.

This hut is now in excellent condition, furnished with rugs and every requisite by that benefactor of his kind M. Vallot, so that one only needs to take up food and fire wood. It may be worth while to mention this, for Mr. Whymper's 'Guide to Chamonix' (1896) merely states that 'the cabane is said to be uninhabitable,' and in July last I could get no information as to its condition from