rest. It was probably due to the brisker blood-flow set up by recent exertion.

The practical conclusions arrived at embraced the following: (1) No stimulants of any kind—not even tea or coffee—are necessary to the mountaineer in full training. Suitable food, sparingly partaken of, is all that he requires. (2) The effects of alcohol on the system during exertion vary so greatly in different individuals, and even in the same person at different times, that it is impossible to lay down any law with regard to them. (3) Small doses of cognac have a beneficial effect on *some* persons. In emergencies, therefore, it may prove useful in quantities of, say, 10 to 15 cub. centim. (4) Alcoholic stimulants in large quantities invariably do harm, especially to persons unaccustomed to them. The more tired the climber, the worse the effect on him—moral and physical. (5) The action of alcohol at high levels is exceedingly transitory—much more so than at ordinary levels; this is especially true of the excitement stage, and not so marked as regards the depression stage, which always follows, intensified as it is by fatigue.

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## NOTES ON THE CAUCASUS.

Mr. Raeburn's 1914 Expedition to the Caucasus.—A further expedition has been planned for this summer. Any member wishing to join can get all information from Mr. Harold Raeburn, 1 Belhaven Terrace, Edinburgh.

Afanasieff's Climbers' Guide to the Caucasus.—Attention was drawn in 'A.J.' xxvii. 105 to this very valuable compilation. An appendix has now been issued by the author, and can be obtained gratis by owners of the volume from Lindauer's Buchhandlung, Munich.

Travelling in the Caucasus.—Dr. Oscar Schuster, who has made several journeys to the Caucasus, of which particulars have been published in this Journal from time to time, publishes in the Ö.A.Z. 1914, 40–44, 60–64, 78–81, a very valuable paper of advice to travellers. The titles of the chapters are as follows:

I. Before and during the journey to Russia. Preparations before starting into the Mountains.

II. Other hints and useful remarks.

III. European guides and porters.
Dr. Schuster does not on the whole recommend taking Alpine guides to the Caucasus, especially as the climbers who undertake an expedition possess, as a rule, sufficient experience.

IV. Clothing and outfit.
This chapter deserves very careful study, and includes a list of requirements that appears to be very complete.

V. Provisions.

Dr. Schuster gives a list of provisions required for three persons for a stay of twenty to twenty-five days in the mountains. He allows 1 lb. of tea, 1 tin of cocoa, 2 lb. of marmalade, 10 lb. of sugar, besides a few other things. He omits bacon, so beloved of the traveller in the American wilds, and altogether his scanty list makes one feel acute sympathetic pangs of hunger.

VI. Medical outfit.

Dr. Schuster includes a stethoscope, dental pliers, a small set of surgical instruments, besides many other things. One would feel compelled to get ill to test such a complete outfit.

VII. Photographic outfit.

This was revised by Dr. Henry Hoek and appears to be very practical.

VIII. Headquarters.

IX. Notes on marches, roads, bridges, transport animals, and local companions.

Dr. Schuster strongly recommends stipulating that porters shall feed themselves, and he lays great stress on the worries which the traveller has often to put up with through the manœuvres and tricks of porters and transport drivers.

X. Presents for local people.

Dr. Schuster mentions that presents in kind are often more appreciated than money, and gives a list of suitable articles.

XI. Pictures and photographs.

Dr. Schuster mentions of course the magnificent series of Sella photographs, some of which can be had with marked routes. Other series are those of Dr. Kuhfahl, Breitgasse 7, Dresden; of Herr Platz, Schellingstrasse 26, Munich; of Herr Max Herzberg, Neuenburgerstr. 37, Berlin, S.W. (postcards).

XII. Some routes through the Central Caucasus.

XIII. Maps of the Central Caucasus.

Dr. Schuster of course mentions the 1-verst map as indispensable to the mountaineer, but he strongly recommends taking also the 5-verst map, which is now appearing in a very good and legible edition. The sheets covering the district are: G 5, D 5, E 5, G 6, D 6, E 6. A new guidebook in Russian, with maps by Trussewitsch, is announced.

A complete list of the maps in the 'A.J.' and the Proc. R.G.S., as well as in various other periodicals, is given, and attention is drawn to the maps in Baedeker's 'Russia,' 1914 edition.

There are very few travellers who have nothing to learn from Dr. Oscar Schuster, and he puts us all once more under great obligations for his very thorough review.