

of whiskey, call it a smile if you will, did me harm. It simply acted as a goad to flagging powers, as I was not in training for a long tramp.

Now, the habitual use of alcohol during training is injurious and should be forbidden; it should be equally so in your out-door sports. A cup of coffee you will find much more to the purpose, as it is both stimulating and nourishing. I do not wish you to consider me a temperance lecturer, far from it. I am speaking as I feel. I am convinced of the truth of what I have said. A young man in health indulging in out-door sports does not require alcohol. It detracts from the benefit to be derived from them. You may ask, however, what are we to do if, supposing we are in training for a snow-shoe race, we feel depressed, and are forced to exercise more will-power to continue the same exertion. My answer is, you are over-training, relax your work; taking alcohol will be the same as whipping a tired-horse. In the bracing climate of our country men in training do not require spirits. Most of you will remember the Red River Expedition, under Sir G. Wolsely, the heavy work accomplished and the hardships endured, and yet there were no alcoholic rations, tea being supplied instead, and there was no sickness beyond a few cases of diarrhoea.

Now, Mr. Chairman, my duty is done, and I would be sorry if any should consider I have spoken too forcibly on any one point, but at the present time people are very apt to run to extremes. To-day, they are red-hot Radicals with explosive ideas, pulling down time-honored structures, and replacing them with fantastic theories; to-morrow, they are ardent Conservatives, seeing nothing but a high tariff and a national policy.

It is prudence and moderation I wish to counsel in all out-door sport. We cannot do without them, we must have them, and it is only by the wise use we make of them that they will give us pleasure and health.

TUBERCLE-BACILLUS.

A convenient method of demonstrating it in Sputum.

By PROF. DR. P. BAUMGARTEN.

(Translated by Dr. Wilkins, Professor of Physiology Bishop's College, for MEDICAL RECORD from *Centralblatt f. d. medicins. Wissens.*)

The modification suggested by Ehrlich of the staining method discovered by Koch for the demonstration of tubercle-bacilli, has been recognised on

all sides, amongst the first by Koch himself, as an important improvement in the method of examination of the bacilli met with in tubercle. Notwithstanding this, Ehrlich's method still does not appear sufficiently simple and rapid not to excite the desire to discover a still more convenient and rapid proceeding for the demonstration in practice of the fungus of tubercle.

In section preparations, the potash method proposed by me leaves nothing to be desired in the rapidity of its performance, and is scarcely inferior in certainty to the staining method. In preparations, however, in which the accidental occurrence of various other kinds of bacteria are to be feared, or cannot be avoided, as for example in phthisical sputa, the simple potash method is not sufficient,—even for the most practised—at least in many cases. On the other hand, I believe I have found a procedure which even in the last named cases rapidly and surely effects its purpose—a combination of the potash method with staining by means of an aniline dye which usually stains nuclei. Dry preparations of phthisical sputa are prepared according to the instructions given by Koch and Ehrlich, and moistened with very diluted solution of caustic potash.* The tubercle-bacilli present in the preparation can then be seen in the clearest manner without further preparation by means of a magnifying power of 400 to 500 diameters. Through slight pressure on the cover-glass the bacilli can be still more freed from the surrounding tissue-detritus.

In order to exclude the possibility of mistaking similar shaped bacilli of a different species for tubercle-bacilli, the cover-glass should be lifted from the side and be placed to one side sufficiently long until the layer of fluid adhering to its under portions has been dried; this takes place in a few minutes. The cover-glass is now passed two or three times through a gas flame, and a drop of an ordinary watery solution of aniline violet, diluted but not too light in color (or of some other aniline dye which stains nuclei) is placed on the preparation. All bacteria resulting from decomposition now appear intensely blue; the tubercle-bacilli, on the contrary, are absolutely colorless, and can be seen as readily as in the simple potash preparation. The whole procedure requires not more than ten minutes, and may prove useful in practice.

* 1-2 drops of a 33 per cent. solution of caustic potash in a watchglassful of distilled water.