

The means by which the individual may be protected from the bites of mosquitoes, and hence from malaria, are the following; (1) The use of wire gauze doors and windows in barrack-rooms; (2) electric fans or "punkahs"; (3) the disinfection of barrack-rooms by sulphur; (4) the use of mosquito nets; (5) prophylactic doses of quinine.

The first method is comparatively expensive; owing to the fact that some Anopheles will be sure to gain access to the room, and that some men must be assumed to be already infected, the result is unlikely to be a large diminution of the disease. The same remarks apply to the second method. In one station in which electric "punkahs" have been in use, a considerable increase in the admission-rate for malaria has taken place. The third method has been tried in India on a small scale, but the expense makes it prohibitive. It is unlikely to produce much effect, unless combined with the use of wire gauze doors. It is unnecessary to dwell upon the merits of the fourth method. It must be admitted that its application is attended with some difficulties in the case of soldiers. One objection which is often raised is that the men would be unable to stand the heat. This objection can be overcome by using a low net under the existing "punkahs," and by sleeping out of doors under a net during the hot weather. Another common objection is that unless a net be used with care it is worse than useless. This objection probably applies to every sanitary contrivance. The British troops in Sierra Leone have been provided with mosquito-nets, so the difficulties do not appear to be so insurmountable as one might suppose from Indian experience. The fifth method has been attempted both in India and in Africa without markedly affecting the incidence of malaria. However, the duration and severity of the attacks are probably lessened by this method.

The importance of that branch of sanitation known as anti-malarial measures cannot be over-rated, but it is necessary to bear in mind that unless the individual be also protected, preferably by means of nets, extensive operations and the expenditure of vast sums of money may be rendered useless by trivial circumstances, the difficulty of obviating which is so difficult and uncertain as to amount almost to an impossibility.

I am, &c.,

Jhansi,  
December 27th, 1906.

ALFRED J. HULL,  
Captain, R.A.M.C.

#### FAILURE IN REVACCINATION

TO THE EDITOR OF THE "JOURNAL OF THE ROYAL ARMY MEDICAL CORPS."

DEAR SIR,—May I suggest the possibility of "Failure" in a certain number of revaccinations being due to chemical antiseptics used to clean the scarifier? I have seen this instrument lying in a basin of 1 in 20 carbolic acid before use, and as the virus is somewhat readily destroyed

by chemical disinfectants, it seems reasonable to expect that it may fail to act if applied by means of an instrument which has been lying in a strong antiseptic before use. The flame of a spirit lamp would appear a safer means of disinfection.

I am, &c.,

F. J. W. PORTER,

Major, R.A.M.C.

February 4th, 1907.

### PREVENTIVE MEDICINE IN THE ARMY.

TO THE EDITOR OF THE "JOURNAL OF THE ROYAL ARMY MEDICAL CORPS."

SIR,—I have read, with much interest, Major Pearse's article on "Preventive Medicine in the Army," in the current number of the *JOURNAL OF THE ROYAL ARMY MEDICAL CORPS*, December, 1906, and I cannot help thinking that while a great deal of what he says is perfectly true, yet, underlying the whole scheme, there is an entirely wrong principle which would certainly be subversive of all discipline, especially in cases where a special Sanitary Officer may chance to be of a hasty or tactless disposition.

Major Pearse seems to assume that Principal Medical Officers are incapable of appreciating the true value of any recommendations made by a special Sanitary Officer, and also to think that the latter has a better chance of having his views understood, and his wishes carried out, by a General Officer Commanding who (almost certainly) has never had the smallest amount of training in the science of "Preventive Medicine," than by a Principal Medical Officer who, on the other hand, has, at various stages of his service, been obliged to go through courses of instruction in that science, and therefore must be in a better position than the General to sift the good from the bad proposals made to him.

As Principal Medical Officers are selected officers of long service, it may be assumed that they are men of exceptional ability and common-sense and great experience—an assumption that does not necessarily apply to all special Sanitary Officers. Principal Medical Officers have, as a rule, infinitely more practical experience than most Sanitary Officers and are consequently better able to judge how more purely scientific recommendations can be carried out without interfering with the military duties of the troops, &c.

If it was the rule for the special Sanitary Officer to communicate directly with the General Officer Commanding, the latter would certainly (in 99 cases out of 100) refer to his Principal Medical Officer any recommendation made by the special Sanitary Officer, and say, "Do you consider this officer's recommendations sound; and am I to follow his advice in the matter?" and in the end he would undoubtedly follow the advice of his Principal Medical Officer.

The advice of a special Sanitary Officer is most valuable, but, in my