

From the ADVISORY COMMITTEE FOR PREVENTION OF EPIDEMIC DISEASES, M.E.F., to Surgeon-General BARTIE, V.C., P.D.M.S., M.E.F.

SIR,—

In respect of the request of Lieut.-Colonel Rhodes, representing the New Zealand Government, the committee beg to forward the following observations:—

(1.) With regard to the regulations and sanitary methods which might be followed during their course of training in New Zealand—likely to be of use to the troops at the front—the committee consider that the importance of sanitary measures and methods cannot be too strongly impressed upon the medical officers in charge of all units and fully discussed among themselves and among soldiers of all ranks and units.

(2.) It should be impressed on all officers commanding all combatant units that at the front neglect of necessary measures of field sanitation leads to much preventable illness, with loss of efficiency and diminution of the fighting-strength of the unit, and that primarily it rests with each officer commanding to see that such measures are adopted in his command.

On occupying ground the officer commanding will have to see that the best available provision is made for safe water-supply, for latrines, for incineration of refuse, prevention of flies, lice, &c. He must also remember that successful sanitation in war depends not only on provision of apparatus and issue of orders, but on minute and daily attention to details and constant inspection and supervision. He should also realize that the ground which he vacates may be used by others, and that it is of first importance to leave it in a satisfactory condition.

In these matters the O.C. should rely for expert advice on the medical officer with his unit, on the divisional Medical Staff, including any specialized sanitary officer with the division, and, where the troops are in areas to which permanent sanitary officers (with sanitary sections) are allotted, he should look to and conform to the advice of those officers.

Representations made to officers commanding units by the Medical Staff on any matter affecting the health of the troops should have immediate attention, and offences against sanitary discipline must be looked for, reported, and adequately dealt with.

These general principles should be adopted to the utmost extent possible in course of home training, so that all ranks may become accustomed to this part of their duties. The sanitary squads told off by the several units should be carefully selected with a view to efficiency, and nothing should be said or done to minimize the military value of their work.

3. Medical officers generally should remember that the preventive part of their duties may often be more important than the curative. All medical officers likely to go to the front should carefully study a good text-book of military hygiene, and in particular the sections relating to field sanitation in Part II of the R.A.M.C. Manual of Training or the small Army Handbook on field sanitation. Much useful practical information is also contained in the small book "Sanitation in War," by Major Lelan (London: J. A. Churchill, 1915).

All medical officers should, *inter alia*, obtain practical knowledge of—The construction and working of simple forms of refuse-destructors; the chlorination of water and the use of Horrocks's test-boxes; improvisation of disinfectors for lice (construction and use of barrel disinfectors); improvisation of bathing and washing facilities; construction of deep-trench latrines covered by fly- and dust-proof boxes (no special pattern need be insisted upon: for illustrations see Havard's Military Hygiene, 2nd edition, 1914) and of urine-pits; the matters to be looked into in the course of daily inspection of camp-lines, including cookhouses, latrines, &c., and action to be taken to prevent flies and fouling of soil; inspection of food and rations, especially as cooked and issued; special supervision over the health of company cooks; the life-history and habits of the common fly.

The importance of attention to these matters is daily shown at the front, and they can readily be learnt during training. To this end the arrangement of short courses and demonstrations to medical officers in New Zealand might be considered. The Principal Medical Officer in the Public Health Department of New Zealand could no doubt give valuable assistance in this matter.

It is very desirable that defective teeth should be seen to during the course of training, and possible causes of pyorrhoea removed. Men having plates should, whenever this is possible, provide themselves with spare plates.

5. With regard to Colonel Rhodes's second head, the precautions to safeguard the troops against enteric, dysentery, and other diseases, and to other matters of food and clothing in relation thereto, these include a wide number and variety of measures which the committee have dealt with in their various reports.

It will perhaps suffice here to refer in some detail to the question of anti-typhoid inoculation, in regard to which the position of New Zealand Forces is somewhat exceptional, and quite briefly to certain of the other matters in common to all the troops, which have appeared to be related to the prevalence of intestinal infections (typhoid, paratyphoid, diarrhoea, dysentery, &c.) on the peninsula.

6. *Anti-typhoid Inoculation.*—In one of our earliest inquiries (Report on Cairo, 10th August, 1915) we were struck by the severe type of enteric fever found amongst the cases that have been inoculated in New Zealand. We were informed that these inoculations had been made with a vaccine prepared from a culture obtained from a bone-abscess of some fourteen years' duration—*i.e.*, an enfeebled strain of organization—and had given rise to little or no reaction. We therefore recommended that it would be a wise precaution to reinoculate the New Zealand troops with a stronger vaccine such as that issued to the Home Army.

In a report on camps in Alexandria, 5th October, it was again noted in connection with certain camps (Sidi Bishr and Zahriah) where there had been a considerable increased incidence