

FIELD SANITATION

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Field sanitation by R. St. J. MacDonald

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R. ST. J. MACDONALD

**FIELD
SANITATION**

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FIELD SANITATION

BY

MAJOR

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Canadian Army Medical Corps



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PREFACE.

THIS book has arisen out of a series of Lectures by Major R. St. J. Macdonald, M.D., Sanitary Officer, Canadian Army Medical Corps, attached to the Third Canadian Division. The Lectures were given at the Divisional Sanitary School to officers, non-commissioned officers, and men engaged in sanitary work. The school was held in the Field as a matter of routine, and the various appliances, described and depicted, were on exhibit for purposes of illustration.

The Lectures are printed as they were spoken. They are the outcome of Major Macdonald's three years' service on the Western Front from Ypres to the Somme. They retain the flavour of the Field, and are reproduced in all the simplicity of the crude, but efficient, surroundings in which the School was held.

In the absence of books no literary references were possible, even if these had been desirable. With the illustrations, which were drawn by Corporal Sefton of the Sanitary Service, these Lectures give a faithful account of the measures which are in daily use—and with so great success—for the prevention of disease in the Army.

It is the intention that all medical officers shall be supplied with this book for their information and guidance in the discharge of their important duties. It may also be read with profit by officers in other Arms of the Service.

G. L. FOSTER, *Major-General,*
Director-General Medical Services,
Overseas Military Forces of Canada.

Sept. 1st, 1918.

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SYLLABUS.

FIRST LECTURE.

Prevention of Disease.

Preliminary remarks. Sanitary progress. Deaths from sickness and from wounds in past great wars. Causes of disease. Germs. Kinds of germs. Disease-producing germs. How germs get into the body. Proneness to disease. Immunity. How to prevent disease. Protective inoculation. Antityphoid inoculation. Results of antityphoid inoculation.

SECOND LECTURE.

Water and Water Supplies.

Sources of water. Impurities in water. Rain water. Surface water and underground waters. Pollution of waters. Diseases contracted from drinking water. Water purification. Boiling. Filtration. Chlorination. Chlorination of small quantities of water. Sodium bi-sulphate and chloride of lime tablets. Mineral waters. Water control. Drinking water at stand-pipes. Water for the front line. Water supply for an advance. Disinfection and cleaning of wells. Water-carts. Superstructure on carts. Chloride of lime. Lime juice in water-carts.

THIRD LECTURE.

Air and Food.

Ventilation. Impure air in barracks. Effects of impure air. Overcrowding. Ventilation in billets, barracks, tents, dug-outs. Cleanliness of food.

Diseases from food. Tape-worms. Dogs and diseases. Food poisonings. Tinned rations. Food contamination. Food contaminated by water, dust and mud, flies, infected persons. Safeguarding of food supplies. Food safes. Food at refilling points. Kitchens. Position of kitchens. Kitchen personnel.

FOURTH LECTURE.

Disposal of Waste Products.

Germs present in discharges from body. Disposal of excreta. Incineration. Burning. Types of incinerators. Latrines. Types of latrines. Fly-proof latrines for billets, camps, front line area. Pit and pail latrines. Selection of type of latrine. Disposal of urine. Soakage pits. Disposal of waste water. Sullage water from kitchens, ablution tables, baths, laundries. Disposal of dry refuse in camps, billets, shelled areas. Disposal of dead animals.

FIFTH LECTURE.

Flies and Lice.

Disease spread by flies. Life-history of flies. Kinds of flies. Development of flies. Prevention of fly breeding and killing of flies. Prevention of flies gaining access to infective material. Prevention of flies gaining access to food and cooking utensils. Treatment of horse manure. Incineration. Close packing. Giving manure to farmers. Manure in shelled area. Fly breeding in garbage. Killing of adult flies. Protection of food. Lice. Danger to individual. Disease spread by lice. Habits of lice. Dissemination of lice. Prevention of lousiness. Destruction of lice. Disinfestation by steam heat and dry heat. Cleanliness, ointment, powders, baths.