

## TYPHUS FEVER.

An article on typhus fever, by Dr. Edward C. Hort, F.R.C.P. Edin., published in the *British Medical Journal*, is of importance as well as extreme interest at the present time, as the following extracts will show:—

In epidemic form the disease has repeatedly accompanied and followed war, attacking the camp, the beleaguered city, and the retreating host with impartial malignity. This was particularly the case between the siege of Reading in 1643 and the Crimean campaign.

Its ravages in Serbia in the spring of 1915 defy description. On March 31st no fewer than 3,000 fresh cases were reported from Skoplje alone.

In times of peace, epidemics, till towards the end of the last century, were frequent in countries in which the disease held an endemic footing. Since the advent of the modern medical officer of health, epidemics of alarming proportions have become rare in all countries in which he has had a free hand. In no disease has modern sanitation in its early days won greater triumphs than in typhus, unassisted by bacteriological research or by a knowledge of the bionomics of vermin. "The history of typhus," said Hirsch in 1893, "is written in those dark pages of the world's history which tell of the grievous visitations of mankind by war, famine, and misery of every kind." The knowledge we now possess of the etiology of the disease makes clear the inner meaning of Hirsch's inimitable summary.

### METHOD OF SPREAD OF THE DISEASE.

It has long been known that clothes play an important part in endemic centres and in epidemic outbreaks. The Spanish equivalent for the disease—*tabardillo*, denoting a peasant's cloak—speaks eloquently of the connection between clothes and typhus, and of the Spanish power of observation. It has also long been suspected that the connecting link between clothes and typhus was the presence of vermin, and as long ago as 1876 Murchison declared that to prevent infection with typhus it was essential that the body should be protected from lice. That Murchison's clinical observations were sound was amply confirmed by the experiments of Ch. Nicole, C. Comte, and E. Conseil in 1909, and by Anderson and Goldberger in 1910, who at the same time exculpated the bed-bug and the flea. As an illustration of the connection between endemic centres of the disease and epidemic outbreaks through the medium of vermin-infected clothes may be cited an experi-

ence during a study of the bacteriology of the disease in an epidemic in Ireland in 1914. It was found that between Glasgow, a well-known endemic centre, and a certain part of the West of Ireland, where the epidemic occurred, there is an extensive trade in old clothes, which can be bought by the peasants for a few pence; inspection of the clothes in an infected house showed large numbers of lice.

Lice, however, are probably not the only carriers of the infective agent of the disease, as was shown in 1914 by Hort and Ingram, who were able to reproduce in bonnet monkeys a disease which appeared to be a modified form of typhus by the injection of first cultures on human blood-agar of a minute cocco-bacillus recovered from fresh typhus urine. This organism, which is of a pleomorphic type, is small enough, as it occurs in the body fluids, to pass tested Berkefeld filters, and can often be seen in large numbers in the centrifuged deposits of fresh human typhus urine. These observations suggest that the urine of typhus patients may be highly infective, and independent confirmation of the infectivity of excreta from typhus cases was recently obtained by C. E. Burns. This observer showed that in the island of Eriskey, in the Outer Hebrides, an outbreak of typhus could be traced with considerable confidence to a recent disturbance of a midden which had been in use by a family all of whom had died of typhus several years previously. The possibility of the disease being conveyed by the urine of convalescing and of chronic typhus carriers has not yet been investigated, but there is little doubt that during an attack of typhus a patient is an acute urinary carrier, and that the latter shares with the louse the stigma of being able to impart the causal organism of the disease.

### PREVENTION OF SPREAD OF TYPHUS.

The methods to be adopted in arresting the spread of typhus in a quiescent community are easier of execution than in the case of a community disturbed by war.

In times of peace the danger of infection by lice should not be considered as adequately provided against by the employment of the various parasiticides which are widely recommended for the destruction of the louse in clothing or on the skin. The reason for this is that the favourite habitat for the louse in body clothing is under the lining and in the pleats, where he is relatively protected, and a false sense of security is therefore created by reliance on ointments, powders, vapours, and the like. Whenever possible, all personal clothes, bed linen, mattresses, and so forth, from known cases of the

[previous page](#)

[next page](#)