2. Thirty-four cases had never been out of England. The rest, with very few exceptions, came from France. But it was found that 447 had at some time been in tropical and subtropical countries.

3. 864, or 51.4 per cent., were infected with protozoa. *Entamoeba histolytica* was found in 209 cases (= 12.4 per cent.), *E. coli* in 440 (= 26.2 per cent.), *E. nana* in 303 (= 18 per cent.), *Giardia intestinalis* in 226 (= 13.4 per cent.), *Chilomastix mesnili* in 85 (= 5 per cent.), and *Trichomonas hominis* in 13 (= 0.7 per cent.).

4. The 914 dysenterics yielded 123 (= 13.4 per cent.) carriers of *E. histolytica*; the 766 non-dysenterics yielded 86 (= 11.2 per cent.).

5. Among 447 cases (dysenteric and non-dysenteric) who had been in the East, 72 (= 16.1 per cent.) were infected with *E. histolytica*; of 1233 similar cases from England, France, and Northern Italy, 136 (= 11.1 per cent.) were infected.

6. 280 dysenterics who had been in the East had among them as many as 56 carriers (= 20 per cent.), whereas 634 French and English dysenterics yielded only 67 (= 10.6 per cent.).

7. *E. histolytica* cysts were found in one of 34 men who had never been out of England.

8. Of 208 *E. histolytica* carriers, 103 had cysts below 10 μ in diameter, 96 had cysts over 10 μ , and 16 passed both large and small cysts.

9. Of 131 carriers who were treated for 12 days with emetine bismuth iodide (60 with capsules, 67 with salol-coated pills, and 4 with capsules and pills), 69 relapsed after a first treatment. Of 16 who went on to further treatment at Southampton, 8 were eventually cleared.

10. Cases were examined daily for four weeks after treatment. At least 58 per cent. of the "relapses" took place in the first week.

11. Observations on 5 cases of "*Lambli*a dysentery" treated in France with methylene blue and declared free of the organism, do not suggest that this is an effective treatment.

I should like to acknowledge my great indebtedness to Lieutenant-Colonel Lauder, R.A.M.C., the officer commanding the University War Hospital, Southampton, and to my colleague, Captain William Fletcher, R.A.M.C., bacteriologist to the hospital. My thanks are also due to Miss Margaret Jepps, who kindly assisted me with some of the later examinations.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TRENCH FEVER IN ENGLAND:

A CASE WITH NO HISTORY OF EXPOSURE TO INFECTION.

BY F. H. MOSSE, M.A. OXON., M.R.C.P.

THE following case did not occur in a civilian, but may be of sufficient value to be worth recording as an appendix to the interesting civilian case discussed by Dr. J. H. E. Brock in your issue of August 3rd and bearing on the likelihood of trench fever breaking out in the civilian population.

The patient was a lad of 18 who had just joined the Army. He was admitted to hospital on April 19th, 1918, complaining of headache and pain in the back. No other symptoms or physical signs were recorded at the time and the case was diagnosed as "influenza." He came under the writer's care a few days later, when the subsequent course of his pyrexia and the entire absence of catarrhal symptoms suggested

Temperature Chart of a Case of Trench Fever in England.

an alteration in the diagnosis. The chart eventually showed a series of pyrexial attacks recurring at increasing intervals of from three to eight days. The patient felt acutely ill for about 12 hours during the attacks, with severe frontal headache and pain at the back of the eyes, which were kept tightly closed and caused him much pain if he attempted to move them. On one occasion slight nausea was present with the attack, but no vomiting. Between the attacks he was quite normal and said he had never felt better in his life. There were no abnormal physical signs in the heart, lungs, or abdomen; the spleen was not enlarged when I saw him, and the characteristic "shin pains" were absent. He was not conscious of having been lousy at any time, and there were no taches bleuâtres. At one time the intensity of the headache and the intermittent pyrexia suggested the possibility of cerebro-spinal meningitis, but there was no tenderness or rigidity of the neck tendons; Kernig's sign, Babinski's sign, and Brudzinski's signs were all absent; the knee-jerks were quite normal, and there were no eye symptoms or cutaneous eruptions.

The patient had never been abroad, but the possibility of an indigenous malaria has, perhaps, to be considered in these days. The irregular intervals between the attacks, the absence of rigors, and the comparatively rapid cure without quinine were, however, sufficient to negative this diagnosis. By a process of exclusion the case appears to be one of true trench fever.

The interesting point about the case, if this diagnosis be accepted, was that no history could be obtained of any exposure to infection. The patient had been sleeping in a hut, his bed being next the door, and his only "sleeping contact" had never been abroad or suffered from trench fever; further, no men in the camp had reported sick then, or since, with anything that could be diagnosed as trench fever; some men in the camp had been abroad, but none within a period of at least a month prior to patient's admission, and probably two months or longer.

It would seem likely, therefore, that he was infected either from a carrier, or from a mild ambulatory case, in which the disease had been so slight that the man had not reported sick.

If either of these hypotheses be accepted—and no originality is claimed for either of them—the possibility of civilians, as well as soldiers, being infected from such unrecognised cases is obvious, a possibility which it is well to bear in mind at the present time, when "influenza" is more than ever a ready-to-hand diagnosis.