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THE MINOR HORRORS OF WAR.

Dr. A. E. Shipley, Hon. Sc.D., Princeton, F.R.S., Master of Christ's College, Cambridge, and Reader in Zoology in the University, has conferred a boon upon the public by reprinting in book form papers contributed by him to the British Medical Journal on the above subject, though he tells us in his preface that " the con-tents of this little book " (which is published by Messrs. Smith, Elder & Co., 15, Waterloo Place, S.W., price 18. 6d.) " hardly justify its There are whole ranges of 'Minor title. Horrors of War' left untouched in the following chapters. The minor poets, the pamphlets of the professors, the people who write to the papers about 'Kultur' and think that this is the German for Matthew Arnold's overworked word 'Culture,' the half-hysterical ladies who offer white feathers to youths whose hearts are breaking because medical officer after medical officer has refused them the desire of their young lives to serve their country. Surely, as Carlyle taught us, 'There is no animal so strange as man.'

"These 'Minor Horrors of War' and many besides have for the moment been neglected in favour of certain others which attack the bodies, the food, or the accoutrements of the men who are giving all that they have to give, even unto their lives, for their homes and for their country."

The minor horrors with which Dr. Shipley deals are the louse, the bed bug, the flea, the flour moth, flies (the housefly, the bluebottle, and others), mites (the harvest mite and endoparasitic mites), ticks, and leeches—a formidable company adding to the discomfort of the armies in the field.

THE LOUSE (PEDICULUS).

The author confines his attention to two species—(Pediculus capitis) the hair louse and (Pediculus vestimenti) the body louse. Concerning the latter we read : "Wherever human beings are gathered together in large numbers, with infrequent opportunities of changing their clothes, P. vestimenti are sure to spread. It does not arise, as the uninformed think, from dirt, though it flourishes best in dirty surroundings. No specimen of P. vestimenti exists which is not the direct product of an egg laid by a mother louse and fertilised by a father louse."

The body louse is rather bigger than the hair louse, and its antennæ are slightly larger. "It so far flatters its host as to imitate the colour of the skin upon which it lives; and Andrew Murray gives a series of gradations between the black louse of the West African and Australian native, and the dark smoky louse of the Hindu, the orange of the Africander and of the Hottentot, the yellowish brown of the Japanese and Chinese, the dark brown of the North and South American Indians, and the paler brown of the Eskimo, which approaches the light dirty grey colour of the European parasites.

"The habitat of the body louse is that side of the underclothing which is in contact with the body. The louse, which sucks the blood of its host at least twice a day, is, when feeding, always anchored to the inside of the underclothing of its host by the claws of one or more of its six legs. Free lice are rarely found on the skin in Western Europeans; but doctors who have recently returned from Serbia report dark brown patches, as big as half-crowns, on the skins of the wounded natives, which on touching begin to move—a clotted scab of lice ! But the underside of a stripped shirt is often alive with them."

Mr. C. Warburton, of the Quick Laboratory, Cambridge, who has made investigations concerning the louse at the request of the Local Government Board, reports that the life cycle of the insects is as follows :---

Incubation period : Eight days to five weeks. From larva to imago : Eleven days.

Non-functional mature condition : Four days. Adult life : Male, three weeks; female, four

weeks. "From Mr. Warburton's experience it is perfectly obvious that unless regularly fed, body lice very quickly die. The newly hatched larvæ perish in a day and a half unless they can obtain food."

Like most biting insects, the body louse from time to time conveys most serious diseases. *P. vestimenti* is said to be the carrier of typhus. The irritation due to the body louse weakens the host and prevents sleep, besides which there is a certain psychic disgust which causes many officers to fear lice more than they fear bullets.

Amongst the methods for dealing with lice are : avoidance of sleeping places where others, especially the unclean, have slept before; frequent change of clothing; the application of petrol, paraffin oil, turpentine, xylol, or benzine, by which they are readily destroyed, but it must be remembered that all these fluids are highly inflammable.

Clothing may be scalded—say once in ten days. Garments should be turned inside out, the folds and seams examined, and exposed to as much heat as can be borne, before a fire, against a boiler, or a jet of steam from a kettle

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