

## OUR PRIZE COMPETITION.

### DESCRIBE THE PART PLAYED BY INSECTS IN SPREADING DISEASE.

We have pleasure in awarding the prize this week to Miss Henrietta Ballard, Bermondsey Hospital, Lower Road, Rotherhithe, S.E.

#### PRIZE PAPER.

Insects play a very important part in the spreading of disease, and probably the greatest of all carriers is the "common house fly."

The fly lays its eggs in manure or other decomposing vegetable substance; the maggot feeds on the same, and very quickly reaches its maturity, and likewise deposits its eggs in the same manner in batches of about 150 each time, and during its life will probably lay thirty to fifty million. It has a habit of vomiting and re-swallowing its food, and its hairy legs carry enormous numbers of bacteria from the filth it lives upon; thus one cannot realise the result of a fly having fallen into a jug of milk, as is so frequently seen, and carrying with it micro-organisms from sputum, excreta, urine, or skin of infected persons.

One of the most important of diseases spread by flies is *summer diarrhoea*, which results in such a high infant mortality every year in our towns, especially during the fly season. The infection may have been carried straight to the milk by these pests or to the feeding vessel used, which, left dirty, especially after milk has been therein, is a delightful feeding ground for these carriers. All such vessels should be scalded, thoroughly cleansed, and kept immersed under water or covered until use. All fluids, especially milk and food of any kind, can only be kept free from infection by being kept covered.

Meat is quickly rendered a putrefying substance when the fly has gained access to it, and also becomes contaminated with bacteria.

Other diseases spread by flies are tuberculosis, small-pox, and probably all infectious diseases can be transmitted that way, especially "typhoid fever." All excreta of typhoid patients must be suspected of containing the bacteria, so that the smallest thing used by the patient and left uncovered will enable a fly alighting thereon to convey the disease to another person by its contamination of their food.

*Mosquitoes.*—These insects convey the dreaded malaria and yellow fever, little known in this country, but so common in warm, damp countries. Protection is afforded by protecting the skin from bites.

*Tsetse Fly* is responsible for the conveying of "sleeping sickness." It makes its home

in hot, marshy climates, and the disease is frequently fatal.

*Fleas and Bugs* convey skin diseases and plagues. These live in dirt; fleas also find their homes on rats, cats, dogs, and horses. The former should be exterminated, and any dead bodies of same covered in disinfectant to prevent the fleas which abound on them escaping to other persons. Dogs and horses properly kept are easily cleared of the pests, but cats are doubtful, as they cannot be properly cleansed with a good bath.

*Bugs* may abound in old houses, and probably the only efficient way of exterminating them is by fumigation; all niches and corners, &c., should be cleansed by means of a blow-lamp or formalin spray. This application should be repeated after an interval of a few days.

*Lice.*—Typhus fever has been spread to an appalling extent by lice. The louse, having bitten an infected person, is transmitted probably by the clothing to a healthy person, and the result may be another victim of this dreaded plague.

Trench fever, so common during the late war, was traced to lice carrying infection from one man to another.

Complete disinfection and cleanliness are the only efficient agents in the destruction of these pests.

#### HONOURABLE MENTION.

The following competitors receive honourable mention:—Miss P. Thomson, Miss M. Jones, Miss Everard, Miss T. Morgan, Miss B. Browne.

Miss T. Morgan emphasises the frequency with which enteric or typhoid fever is disseminated by flies. Direct infection from patient to attendant by contact with stools or infected linen may occur, but is comparatively rare.

#### QUESTION FOR NEXT WEEK.

Name three gynæcological operations, and how to prepare the patient for them.

## SCIENCE NOTES.

### THE TYPHUS GERM.

It is claimed in a Central News Moscow telegram that a Russian woman, Dr. N. Kritch, has made one of the most important medical discoveries of the century by finding and isolating the typhus germ.

Other doctors in Europe and America have claimed partial success in the production of typhus vaccine, but Dr. Kritch is the first to grow and reproduce typhuscocci outside the human body, says Dr. W. P. Davenport, of Chicago, acting head of the Medical Department of the American Relief Administration in Russia.

[previous page](#)

[next page](#)