

This exaggerated fear of infection reminds one of the old story of the man who met the plague angel on his way to devastate a very thickly-populated city. After some pleading (in the manner of Abraham for the inhabitants of the cities of the plain) the angel consented to slay only a tithe of the number at first contemplated. Some time afterwards the man once more encountered the plague angel, and reproached him because he had not apparently kept his word. The angel replied that he had not exceeded his limit and had slain only a small portion of the dead multitude, the rest had succumbed to fear of the disease. There are signs of panic in the air at the present time, and you as nurses must be prepared to show that the consumptive need not be regarded as a pariah, but with perfect safety may be allowed to mix with his fellows provided due precautions are observed.

As instances of this panic I may mention that comparatively recently the relatives (in one case actually the parents) of two patients in this institution refused to have them, even in the same town as themselves, for fear of contracting the disease, and a case came to my knowledge not very long ago where a lady hesitated for some time about engaging a coachman who had suffered from phthisis, because she was afraid she might run some risk when seated in her landau whilst the man in question was driving on the box.

Nowadays everyone is aware that phthisis is caused by the tubercle bacillus, and it is my object this afternoon to endeavour to give you some idea of the favourite lurking-places of the microbe, the manner of its dissemination, and how it finds its entrance into the system of its host, in order that you may the more readily appreciate the measures taken for its extermination.

In the first place, we shall do well to realise that tuberculosis is now included in the category of "preventable" and "dirt diseases."

Speaking generally, we may say that the tubercle bacillus enters the human body by one of two channels, the mouth and alimentary canal or the respiratory tract.

In the first case the vehicle consists of infected food, crockery, or other implements used in eating and drinking, and in the second of dust particles, which act as carriers of the bacillus and its spores.

Fortunately for the human race the articles of food, crockery, &c, which are liable to contamination are easily sterilised by heat, and the danger from dust can be rendered practically non-existent by a careful system of personal and household cleanliness. I need hardly say that this will devolve principally upon the nurse's shoulders, or how much will depend upon her conscientious attention to detail.

Meat and milk are the only two articles of food likely to be dangerous, and the first question we have to decide is the degree of heat necessary to

destroy this particular bacillus and its spores. By experiments upon animals Professor Bary, of Copenhagen, has proved that the heating of naturally tuberculous milk to 60° C. (140° F.) "for two minutes is enough to weaken the tubercle bacilli so much that they cannot infect through the alimentary canal, but a heat of 70° C. (158° F.) is required to absolutely kill the bacillus."

Now, in heating a large quantity of milk it is very difficult to ensure that the temperature throughout the whole volume is the same, and it is, therefore, advisable to bring the milk in the bulb up to 80° C. (176° F.), so that no particle of it may escape sterilisation. In the Danish dairies all milk is raised to this temperature before being sent out to customers, and it is claimed that this heating does not interfere with the subsequent making of butter or cheese.

It is a mistake to heat milk above 80° C. (especially for children), on account of the chemical changes which will take place—*i.e.*, the coagulation of the albumins, "caramelisation of the sugar, fusion of the fat globules, and production of large masses of fat, and marked alteration of taste" (H. Droop Richmond, F.L.C.), all of which render the milk more difficult for digestion.

(To be continued.)

The International Congress of Women at Berlin.

TRAINED NURSING.

Meeting on Thursday, June 16th. From 9 to 1 o'clock, in the Great Hall, Philharmonic.

Chairman and Introductory Speaker:—Frau ELSBETH KRUKENBERG (Kreuznach).

Papers will be read by:—

Mrs. BEDFORD FENWICK (*England*).

"Trained Nursing as a Profession for Women, from an Educational, Economic, and Social Aspect."

Miss L. L. DOCK (*United States*).

"Trained Nursing in America."

Sister AGNES KARLL (*Berlin*).

"The Future Improvement of German Nurses for the Sick."

Mrs. GOODRICH (*United States*).

"The Position of Nurses for the Sick in America."

Miss MAUD BANFIELD (*United States*).

"The Improvement, Position, and Old Age Maintenance of American Nurses for the Sick."

Dr. ELLEN SANDELIN (*Sweden*).

"The Organisation of Trained Nurses in Sweden."

In the discussion the following will take part:—

Frau EMMY GORDON (*Wurzburg*); Miss MARY E. THORNTON (*United States*); LILLI, Baroness VON BISTRAM (*Berlin*); Frau BROKER (*Berlin*).

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